COMPREHENSIVE PLAN

TRANSPORTATION MOBILITY ELEMENT

Policy Document

TRANSPORTATION MOBILITY ELEMENT

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INTRODUCTION

The purpose of the Transportation Mobility Element is to establish the City's mobility policies, which guide the City in making decisions on transportation system improvements. The City's policies are required to comply with federal and state regulations and provide for effective coordination with other agencies. They must also be internally consistent with other elements of the comprehensive plan.

The Transportation Mobility Element of the Comprehensive Plan is one of the most important elements because of its interrelationship with the Future Land Use Element. The transportation policies a city adopts are merely one component of its overall land use philosophy. The development path a city follows must be supported by its transportation system. By State law, the future transportation system is required to accommodate the land uses proposed by the Future Land Use Element as well as provide strategies for reducing green house gases. In order to achieve this, the transportation system must work together to give people a wide variety of choices in routes and travel modes to access destinations within short distances to their homes. The City accomplishes this by ensuring that level-of-service standards are met through its concurrency management system, while also increasing network capacity and connectivity through its capital improvement program. To guide the application of these efforts, three Mobility Improvement Zones have been created, each with its own mobility policies and strategies, to address appropriately the distinct transportation needs and context in different parts of the City.

Since the late 1940s, much of the nation's transportation investments have been prioritized toward roads and highways. Priority was given to maximizing roadway capacity, travel speed, and convenience, to enable the driving public to get from place to place quickly and easily. The State's rules regarding transportation concurrency further this approach by mandating that road capacity be provided to support development. Although transportation networks built solely to accommodate the automobile afford a high degree of personal mobility, they also generate high levels of traffic congestion and air pollution, including greenhouse gases. Furthermore, poorly interconnected roadways increase the distance people travel, shifting traffic to only a few major roadways and not efficiently utilizing the existing capacity on the whole network.

The City has been successful at creating a well-connected, relatively compact urban form and walkable transportation system. The older east side of the city features a tightly gridded network of streets which disperses traffic enough to be safely walkable without sidewalks. The areas developed after 1970 are more loosely gridded, but are built with sidewalks on both sides of each street to accommodate walking. The City's arterial and collector roads feature extra-wide sidewalks that are used by pedestrians and cyclists alike. Timely investments in roadway capacity have ensured that the state, county, and local roadways running through the City are free of congestion. The major corridors are also served by transit, including a "super stop" transfer point for five different routes. Overall, the City has been progressive with its planning and access management, especially along Dunlawton Avenue.

Transportation and land use policies that emphasize alternative modes allow a city to develop more compactly. Such a pattern of development allows a city's resources to be utilized more efficiently. The efficiencies resulting from compact development produce economic savings to both a city and its tax-paying citizens. Because living, working, and shopping destinations are closer together, fewer large-capacity roads--and less money spent on roads--are required.

Higher densities also make alternative modes of transportation, such as walking, cycling, and transit buses more practical and cost-effective. Fewer automobile drivers reduces the need for parking, which further increases pedestrian access by allowing stores to be located closer to the street and sidewalk. Fewer automobiles enhances a community's health, safety, and welfare by reducing the number of automobile accidents, decreasing air pollution, allowing one to exercise, and lowering the stress associated with driving in congested traffic.

There has been growing recognition of these benefits at all levels of government. Since 2007, there have been significant changes to Florida's growth management legislation, as well as to planning policies at the regional level. In 2007, community leaders throughout Central Florida conducted a visioning exercise and prepared an analysis of possible future growth trends in the region. Based on the results of the study and community input, these leaders adopted the *"How Shall We Grow? A Shared Vision for Central Florida"* Plan. The visioning process focused on four primary themes in an effort to protect sensitive lands, concentrate growth in select areas to slow urban sprawl, and create more efficient land use and transportation patterns. These four themes include *Conservation, Countryside, Centers* and *Corridors*. One of the priorities is to "provide a variety of transportation choices." This would be achieved by providing:

- Connectivity between centers and other regions
- Congestion relief
- Choices for moving people and goods, and
- Concurrency with new development.

Transportation concurrency is counter-productive in urban centers and a range of mobility options are needed to "reduce congestion and achieve healthy, vibrant centers." Accordingly, the City utilizes a Transportation Concurrency Exception Area (TCEA) within its central

core redevelopment area, known as Port Orange Town Center.State-mandated transportation concurrency requirements are utilized outside of the TCEA as an important tool to maintain transportation mobility. The TCEA in the Port Orange Town Center allows the City to focus on other mobility strategies instead of road-widening, with the goal of reducing urban sprawl. The City also promotes and adopts complementary land use strategies that reflect the region's shared vision for its future, such as east central Florida's "*How Shall We Grow?*"Plan. In practical terms, this means bringing people closer to where they want to go and providing the connections to get them there.

The goals of the State's transportation planning requirements dovetail with its requirements for reducing the greenhouse gas emissions that contribute to climate change, as per 2008's HB 697. The City intends to meet these requirements by maintaining levels-of-service, encouraging a greater distribution of commercial nodes and development of compact, mixed-use centers, creating efficient transportation designs and operating systems, and focusing efforts on Transportation Demand Management (TDM) and Transportation Systems Management (TSM) programs. By reducing the amount of miles people drive, a measure known as "vehicle miles traveled," or "VMTs," the emissions from vehicles are reduced. Together, these strategies are geared to give people greater choices in how they reach their destinations and reduce the distance to get there.

Following the lead of the Volusia County TPO's *2025 Transportation Plan Update*, the City of Port Orange has continued to take steps to ensure that its transportation policies and future transportation programs reflect a balance between modes. Future transportation investments will focus on land use and mobility options while maintaining adopted concurrency standards. This emphasis will give the citizens of Port Orange the ability to get to and from their destinations using the modes that best suit their individual needs.

ROADWAY IMPROVEMENTS NEEDED

The FDOT's *2009 Quality/Level of Service Manual* establishes general LOS capacities for roadways that exhibit design characteristics and administrative classifications. However, more specialized LOS analysis tools have been used on selected roadways in order to more accurately identify the roadway capacities. This information can be used to determine the number of lanes needed to achieve the adopted LOS standard for the City's future roadway network, beyond those already programmed. Table 1 lists the improvements needed for each facility. Improvements programmed for 2010-2015 are listed in Table 3 under the "Implementation Strategies" section. The schedule of future long-term transportation capacity improvements planned between 2016 - 2025 is listed in Table 4. This table also includes other mobility improvements not necessarily related to relieving projected congestion, such as transit system enhancements, bicycle and pedestrian facilities, and trails. Figures 2-4, 2-6 and 2-8 depict the future 2025 transportation mobility network, including the number of roadway lanes, location of transit facilities, and bicycle/pedestrian facilities.

Based on the long-term projections, the City may need to consider designating additional

roadway segments as constrained facilities, since they likely will not be widened beyond what is currently planned or programmed. With the exception of Taylor Road, N. Williamson Boulevard, and Yorktowne Boulevard, any future congestion may have to be addressed through alternative mobility and traffic management strategies, such as additional TCEAs, Transportation Concurrency Management Areas, a Long-term Concurrency Management System, or Backlogged Authority, as permited by Florida Statute. For example, in 2025, a reduction of 85 trips on Clyde Morris Boulevard would achieve the adopted LOS standard on the segment from Willow Run Boulevard to Herbert Street. These trips could potentially be accommodated by providing alternatives such as improved transit service, and better bicycle/pedestrian connections in this area, or by applying concurrency standards in a different way.

As part of the mobility strategies applied by the City, establishing constrained corridors is essential to promote alternative modes and to preserve the community character and built environment. Figure 2-4 identifies arterial and collector roadways designated as constrained by policy or physical condition. These roadways will not be widened beyond their present width and lane configurations. TSM improvements such as the addition of turn lanes, bike lanes, sidewalks, accessory transit amenities, and exclusive transit lanes are exempt from the constrained corridor restrictions, but are effective strategies that can be applied to meet adopted concurrency standards. TDM programs may also be appropriate for users of these roadways. In addition, redevelopment of properties along these corridors may present opportunities for land use changes to promote mixed-use development. Together, these transportation and land use strategies can help to reduce vehicle miles traveled.

TABLE 1
NEEDED TRANSPORTATION IMPROVEMENTS (2025)

ROADWAY	SEGMENT		PROJECTED VOLUME	VOL./CAP RATIO	IMPROVEMENTS NEEDED	NEW CAPACITY	NEW VOL./ CAP. RATIO
	FROM	TO					
ADDITIONAL CAPACITY							
Transit Transfer Station	Dunlawton Ave. /Nova Area		N/A	N/A	New central bus transfer Station	N/A	N/A
City-wide Bus Stops			N/A	N/A	Bus stop enhancements (5)	N/A	N/A
City-wide sidewalks			N/A	N/A	Sidewalk enhancements	N/A	N/A
Clyde Morris Blvd.	Herbert St.	Willow Run Blvd.	3,289	102%	TSM/TDM	N/A	N/A
Dunlawton Ave.	Clyde Morris Blvd.	Taylor Rd.	5,361	110%	TSM/TDM or 8-lane divided	N/A or 6,880	N/A or 78%
I-95	Beville Road (SR 400)	Dunlawton Ave.	7,457	136%	6-lane divided	8,320	90%
	Dunlawton Ave.	Pioneer Trail	5,679	103%	6-lane divided	8,320	68%
Taylor Rd.	Clyde Morris Blvd.	Yorktowne Blvd.	1,830	121%	TSM/TDM	N/A	N/A
	Taylor Branch Rd.	I-95	5,957	122%	TSM/TDM or 8-lane divided	6,530	91%
	I-95	Williamson Blvd.	4,454	110%	7-lane divided	6,260	71%
Williamson Blvd.	N. City Limits	Town West Blvd.	3,191	150%	4-lane divided	3,204	100%
	Taylor Rd.	Airport Rd.	4,283	134%	TDM	N/A	*134%
Yorktowne Blvd.	Dunlawton Ave.	Hidden Lakes Dr.	1,686	122%	4-lane divided	3,204	53%
DEVELOPMENT ACCESS & OTHER NEEDS							
Coraci Blvd.	Madeline Ave.	Road “D”	484	N/A	New 2-lane	1,656	29%
	Town West Blvd	Taylor Rd.	845	N/A	New 2-lane	1,656	51%
McGinnis Blvd.	Madeline Ave.	Williamson Blvd.	1,821	N/A	New 4-lane divided	3,204	57%
Madeline Ave.	Ridgewood Ave.	McDonald Rd.	1,197	N/A	New 2-lane	1,656	72%
	Williamson Blvd.	Tomoka Farms Rd.	1,069	N/A	New 2-lane	1,656	64%
Martin Rd.	Williamson Blvd. N	Williamson Blvd. S	229	N/A	New 2-lane	1,656	14%
Ridgewood Ave.	N. City Limits	Dunlawton Ave.	3,488	N/A	TSM/TDM	N/A	N/A
	Herbert St.	Dunlawton Ave.	3,488	N/A	TSM/intersections	N/A	N/A
Spruce Creek Rd.	Canal View Blvd.	Herbert St.	316	N/A	New 2-lane	1,440	22%
Williamson Blvd.	Airport Rd.	Pioneer Tr.	2,287	N/A	New 4-lane divided	3,204	71%
Willow Run Blvd.	Williamson Blvd.	Madeline Ave. ext.	294	N/A	New 2-lane	1,656	18%
Yorktowne Blvd.	Taylor Rd.	Dunlawton Ave.	1,062	N/A	New 4-lane divided	3,204	33%
	Hidden Lakes Dr.	Willow Run Blvd.	1,494	N/A	New 4-lane divided	3,204	47%

* Although volume may be higher, VMTs are expected to drop substantially, by approximately 38%, once development of new commercial nodes planned in the area occurs.
Note: “Needed” refers to those improvements needed to maintain the City’s adopted LOS standard or to provide access.
Note: TSM/TDM improvements are proposed for designated constrained facilities on which capacity improvements are not feasible.

Future Mobility Programs and Land Use Considerations

As noted in the Introduction, significant changes were made to Florida's growth management legislation and regional planning policies in 2008 (HB 697). These changes created energy efficiency requirements that the City must address in its comprehensive plan.

The potential mobility and compatible land use options that the City may consider to address these requirements are discussed below.

TSM/TDM Programs

Transportation System Management (TSM) and Transportation Demand Management (TDM) programs are the collective term for a wide range of measures to add roadway capacity and relieve traffic congestion without having to construct costly new facilities. The ultimate goal of TDM strategies is to influence people to shift to more efficient modes of transportation and to travel during off-peak hours. TSM strategies, on the other hand, aim to affect the actual supply of transportation services. The most effective policies integrate supply and demand strategies to create a transportation network that promotes efficient, low-polluting choices. Specific TSM/TDM strategies include:

- Ridesharing/carpooling/vanpooling and park-and-ride facilities
- High-occupancy vehicle (HOV) facilities
- Bicycle/pedestrian facilities
- Telecommuting
- Flex-time/alternative work schedules
- Compact, mixed-use development
- "Intelligent" highway systems
- Coordinated computerized traffic signals/optimization
- Pricing schemes, such as higher gas taxes and parking fees
- Guaranteed ride home programs
- Fixed-route transit service enhancements
- Water taxis
- Turn lanes
- Access management
- Public outreach and education/marketing

In 2009, the City completed a TDM/TSM Program Manual, primarily directed to identify and establish alternative mobility strategies for the Port Orange Town Center TCEA. However, the manual also includes options that are appropriate to apply city-wide. This Plan will incorporate the mobility strategies identified in the manual and make them a part of the Goals, Objectives and Policies of the Plan.

Efficient Land Use Patterns

As described in the Future Land Use Element, the City can take steps to improve the land use pattern by providing more opportunities for mixed-use development and creating commercial and mixed-use nodes to serve adjacent neighborhoods. These land use patterns should be supported by a variety of transportation options including efficient and well-connected street systems, transit service and amenities, and bicycle and pedestrian ways.

Variety of Mode Choices
The City has been successful at creating a well-connected, relatively compact urban form and walkable transportation system. As the City becomes substantially built-out during the planning period**,** efforts to ensure that the transportation system operates as efficiently as possible will have greater importance. Declining revenues from state and local sources are likely to reduce funding for local large-scale capital infrastructure projects. The City should be able to utilize its existing roadways, transit routes and well-connected sidewalk and bikeway system to greater advantage by expanding the role of alternative transportation modes to meet mobility needs. This would include completing the most critically needed roadways in the City and remaining segments of the bicycle and pedestrian network. It would also include transit system improvements that make using transit more accessible, comfortable and convenient.

Reducing Greenhouse Gas Emissions and Vehicle Miles Traveled
As part of HB 697, the City is required to reduce the environmental impact caused by vehicular emissions and greenhouse gases. Doing so can be expected to improve the air quality and health of its citizens, and help to slow climate change. As noted in the Future Land Use Element and other chapters of this Plan, bringing people closer to where they want to go and providing the connections to get them there will reduce the distance they must drive. By reducing the amount of "vehicle miles traveled," or "VMTs," the emissions from vehicles are also reduced.

The "Lifelong Community"
Creating opportunities for people of all ages to live, work, shop and recreate in close proximity to their homes is important to building a cohesive community, in which people can remain in their neighborhood as their lifestyles and needs change over time. The City's transportation network should be able to accommodate the needs of residents at all stages of their lives, including children, adults, parents, "empty-nesters," active retirees, and seniors. As noted above, this can be accomplished by providing a variety of transportation modes suited to people of different needs, and bringing uses together to reduce travel distance.

The elderly population is considered a transit-dependent socio-economic group. There are several Census tract block groups with a large numbers of elderly persons. Many of these tracts are located along existing transit routes. Opportunities to expand transit service or increase frequency should focus on these areas and other locations where the elderly population is expected to increase and represent a significant portion of the population. This includes making improvements to transit stops, such as installing benches and shelters with schedule information, and providing convenient pedestrian connections from residential areas and stores to bus stops.

The Walkable Community
The successful combination of innovative land use planning and urban design, alternative transportation networks, and TDM/TSM programs, is the "walkable community". Walkable communities are defined as:

> *"desirable places to live, work, learn and play, and therefore a key component of smart growth. Their desirability comes from two factors. First, locating, within an easy and safe walk, goods (such as housing, offices and retail) and services (such as transportation, schools, libraries) that a community resident or employee needs on a regular basis. Second, by definition, walkable communities make pedestrian activity possible, thus expanding transportation options and creating a streetscape that better serves a range of users – pedestrians, bicyclists, transit riders and drivers. To foster walkability, communities must mix land uses and build compactly, and ensure safe and inviting corridors."* [1]

The key ingredients to achieving a truly walkable community are as follows:

1. providing a mix of land use in close proximity to one another;
2. building at a pedestrian scale, including buildings and sidewalks;
3. providing compact residential and commercial development;
4. enabling the construction of a highly-connected, multi-modal circulation network built to the pedestrian scale; and
5. creating unique places or "placemaking," which are compact, mixed-use and pedestrian and transit-oriented, and that have a strong civic character with lasting economic value.

The FDOT Safety Office[2] further describes ways in which cities can create a more pedestrian-friendly urban fabric, including:

> *A System of Continuously Linked Walkways*
> People should be able to get from one place to any other on foot. The walkway environment should include attractive landscaping, trash receptacles, lighting, and street furniture with comfortable places to sit. Successful downtowns, waterfronts, and entertainment districts contain a 50/50 ratio of walking space to vehicle space for spurring economic development.
>
> *Pedestrianized Intersections and Street Crossings*
> The maximum crossing width should not be over 48 feet. Slip lanes, medians, and bulb-outs should be used to minimize pedestrian exposure to traffic. Pedestrian signalization and well-illuminated crosswalks should be provided, with signals timed to allow crossing at a rate of 3.5' per second. In areas with large elderly and handicapped populations, curb ramps and audio/tactile pedestrian signal systems should be provided in accordance with The Americans with Disabilities Act (ADA). Mid-block crossings should also be considered where needed, with bulb-outs, raised medians, median curb cuts, and proper signing.

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[1] *Context-Sensitive Solutions in Designing Major Urban Thoroughfares for Walkable Communities*, ITE, 2005.

[2] *Walkable Communities: Twelve Steps for an Effective Program*

Pedestrianized Commercial Areas
Pedestrian access to commercial areas should be provided from adjacent neighborhoods. Walkways should be provided between the sidewalk and the storefront so that car and pedestrian traffic is kept separate. Vehicle traffic may be restricted to specific times of the day or night in areas of heavy pedestrian usage.

Transit/Pedestrian Linkages
Transit stops should be created at trip origins and destinations, such as neighborhoods, mutli-family residential areas, commercial and employment centers, and hospitals. Transit stops should be easy to reach, and should be inviting and convenient to the pedestrian.

Walkable-Scale Land Use Planning
New and infill development should favor walking over driving. Compact, mixed-use development, a gridded street pattern, neighborhood-scale stores, pedestrian-only connections between uses, and civic spaces should be allowed and encouraged in land use codes, ordinances, and regulations.

Port Orange has been able to incorporate many of these design elements into its urban fabric through the development review process. The City's extensive bicycle and pedestrian system provides access between commercial and residential areas. The majority of the Dunlawton corridor features pedestrian-level lighting. New intersections constructed in the City meet ADA requirements and include tactile signal systems. Transit stops exist adjacent to sidewalks and bikeways to facilitate travel between modes.

Implementing substantial mobility improvements will be challenging due to existing constraints. The City is over 80% built out. Of the remaining vacant land, only approximately 911 acres is designated for commercial and industrial development, which leaves little opportunity for creating new commercial nodes within short distances to residential areas. This means that many of the City's residents will have to continue to travel outside of the City to meet certain basic needs.

In the western half of the city, much of the land has been developed at low densities, with relatively few roadway connections. Although the infrastructure exists to support additional development and redevelopment, connecting this development to the residential areas will be difficult because of the manner in which the road network and lots were laid out. Physical constraints in the west side of the City include the reliance upon a small number of major roads to handle most of the traffic; a curvilinear street pattern with few interconnections; low densities to support transit and other modes; and I-95, which itself constricts movement between east and west.

IMPLEMENTATION STRATEGIES

THE MOBILITY PLAN

The strategies of the past 20 years have served the City well in realizing its vision of becoming a progressive, high-quality community. For the next 20 years, the vision will evolve to ensure that the City's quality can be maintained; so that it can continue to build on its success. With respect to transportation, the vision is for mobility - the continual movement of people and goods - to ensure the quality of life expected by Port Orange businesses and residents. The most effective strategy to maintaining and improving mobility is the development of an efficient and balanced multi-modal transportation system. This section discusses the Mobility Plan for Port Orange, how it will be implemented, and how it will be funded in a cost-feasible manner.

Mobility Improvement

The City is embarking on a new program for implementing transportation mobility improvements. The City is adopting mobility strategies to support a wider variety of mobility strategies to be applied in designated Mobility Improvement (MI) Zones. These strategies are intended to encourage multi-modal transportation, including transit, bicycle and pedestrian modes, supported by appropriate facility design standards. The City's overall mobility strategy is established herein by Goal 1, Objective 1 of this Element. This program focuses on the mobility improvement strategies that will apply in different areas of the City.

Within the City's three MI Zones are established. The Zone boundaries are defined by the development patterns and transportation network characteristics in different parts of the City. Because of different development patterns, the mobility needs and priorities are different in each Zone. In the older, built-out portions of the city, mobility needs are focused more on transportation systems management (TSM) and transportation demand management (TDM) programs, transit enhancement, bicycle and pedestrian improvements, and maintaining the existing system. In the developing portions of the city, where the transportation system is still being created, the focus remains on roadway extensions and capacity improvements, along with TSM programs and bicycle/pedestrian improvements. The three MI Zones are shown on Figure 2-11. The characteristics and specific strategies in each MI Zone are described below.

Mobility Improvement (MI) Zones

Three MI Zones are established. These include:

> *Zone 1* – The historic center of town, comprising the same properties as the Port Orange Town Center TCEA adopted in 2006. Zone 1 is a designated redevelopment area and thus presents opportunities for transportation improvements to be made on a site-by-site basis or with larger-scale redevelopment projects such as Riverwalk. The development pattern is relatively compact and features a gridded street network. Mobility strategies in

this zone are geared toward maintaining and enhancing the existing transportation system as described in the TCEA and improving upon the characteristics of Ridgewood Avenue and Dunlawton Avenue as "complete streets". Other strategies will encourage pedestrian-oriented, mixed-use development as part of Riverwalk, as well as bicycle, pedestrian and transit system improvements and TSM/TDM programs.

Zone 2 – That portion of the City located to the west and south of Zone 1, generally east of I-95 and Clyde Morris Boulevard. Zone 2 contains an interconnected suburban street pattern, with higher residential densities along the major roads serving as transit corridors, and medium to low densities elsewhere. This area is generally built-out and includes commercial development in nodes and along specific corridors. Mobility strategies in this zone are geared toward improving roadway intersections, completing gaps in the bicycle and pedestrian system, providing linkages and amenities for transit, implementing appropriate TSM and TDM programs, and maintaining the existing transportation system and adopted LOS standards.

Zone 3 – That portion of the City generally located west of I-95 and Clyde Morris Boulevard. Zone 3 contains a suburban street pattern with minimal transportation links/connections between adjacent developments. This area is still developing and includes several Planned Unit Developments, nodal commercial centers, an interstate interchange, as well as the Planned Community-Westside area and the proposed Woodhaven development. Mobility strategies in this zone are geared to constructing roadway capacity improvements necessary to maintain the adopted LOS; adding roadway extensions and connections; making bicycle and pedestrian improvements; providing transit service to commercial and employment nodes; utilizing TSM and TDM programs; and maintaining and enhancing the existing transportation system. Complementary land use strategies will help achieve a greater balance of uses to serve existing homes.

The specific mobility strategies for the three MI zones are described in Objectives 1.1, 1.2, 1.3 and 1.4.

Levels of Service

With the adoption of the city-wide Mobility Improvement Program as part of this Comprehensive Plan, the traditional roadway level-of-service measure by a concurrency management system is retained. The City will maintain these adopted LOS standards, but will also consider alternative strategies such as TCMAs, long-term transportation concurrency management areas, etc., as may be appropriate. The City will continue to measure and monitor the level of service on its roadways to gauge the demand on each facility. The City will then apply mitigation measures to meet the mobility needs particular to each part of the City, as identified in the three MI Zones. Mitigation may be in the form of physical improvements, payment of fair-share contributions and impact fees, and other funding sources necessary to ensure multimodal options and maintain

concurrency.

TSM/TDM Programs
In 2009, the City conducted a study of mobility strategies that could be effective in the Port Orange Town Center TCEA. The results of this study are compiled in the *Port Orange TDM/TSM Program Manual,* which the City will use as a basis for applying appropriate multi-modal strategies within the TCEA and MI Zones. For the areas of the City outside of the TCEA/MI zone 1, the City may implement a TDM program and continue to require proportionate fair-share funding for traditional roadway capacity improvements needed to comply with the adopted LOS standards.

Transit
The City will continue to support and participate in the transit system as planned by the TPO and operated by VOTRAN. The City will also continue to concentrate its high-density residential land uses along major roadways and transit corridors. In addition, the City will continue to concentrate commercial uses within the various commercial nodes throughout the City, many of which are visited by transit riders. These commercial nodes are shown on the Future Land Use Element Figure 1-9 and on Figure 2-6 of this Element.

The City will assist VOTRAN with its efforts to encourage ridership. In coordination with VOTRAN priorities, the City may require new development to provide safe, attractive and comfortable transit amenities such as benches, shelters, lighting, and access to transit stops. The City may assist, if possible, in providing access to system operations information at designated bus stop locations and through public information outlets. This would provide assurance to the public about the service, destination, and timeliness of the routes, and would instill confidence that the trip can be accomplished in a reasonable amount of time. The City also can provide coordination between VOTRAN and groups or individuals who rely on transit service in the city.

Pedestrian Orientation
The City will continue to further improve its pedestrian system in support of the "walkable community" concept. The City will look for ways to enhance its existing "Complete Streets" to increase their use by pedestrians, bicyclists and transit riders. This is part of a larger effort to create a "lifelong community" that is more sustainable and energy efficient. As part of the effort for making improvements to the transportation system, the City will include the evaluation of alternative technologies and facility design standards. This will ensure that these efforts will enhance multi-modal choice, increase energy efficiencies in the system, and create a more livable urban environment.

Implementation
The City will continue to operate its concurrency management system and will implement the mobility improvement strategies based on a phased schedule, but may deviate from the schedule if warranted by economic conditions. Short-term efforts may include development of a Corridor Plan or Master Bicycle/Pedestrian Plan, which can then be implemented in prioritized locations. Mobility strategies within the city will retain the Proportionate Fair-share process in select areas and focus on the physical

infrastructure needed for transit, bicycle and pedestrian modes. In future years, development and operation should receive more of the focus.

PROJECTED TRANSPORTATION IMPROVEMENTS

A number of transportation mobility improvements are currently programmed or planned for Port Orange between now and the year 2015. Transportation improvements programmed in the Transportation Planning Organization's (TPO's) Transportation Improvement Program, the Volusia County Five-Year Road Program, and the City's Capital Improvement Program are listed in Table 3. These programmed improvements include roadway, transit, bikeway, and pedestrian projects scheduled over the next five years. The cost estimates for these improvements include right-of-way acquisition, engineering, permitting, and construction costs. Table 4 lists the planned but as yet unprogrammed improvements needed between the years 2016 and 2025. The anticipated cost of each improvement and the funding source are also listed. Missing sidewalk gaps in the significant corridors are listed in Table 2. Approximately 13 miles of additional sidewalk are needed in the City to complete the system. However, additional improvements are planned for construction between the years 2010 and 2030. The individual segments are listed under Tables 3 and 4. The entire future bicycle and pedestrian system is shown on Figure 2-8.

TABLE 2
SIDEWALK GAPS ON COLLECTOR AND ARTERIAL ROADS

ROADWAY SEGMENT	FROM-TO	DISTANCE
Bruner Road	Madeline Avenue- Clyde Morris Blvd.	2300’
Canal View Blvd.	Nova Road – Spruce Creek Road	4000’
Clyde Morris Blvd.(west side)	Dunlawton Avenue- 200’ south	200’
Halifax Drive	Ocean Ave.- Dunlawton Avenue	1800’
Halifax Avenue/Riverside Drive	White Place-Seminole Street	6600’
Herbert Street (north side)	Nova Road- FEC Railway	6100’
Herbert Street (south side)	Nova Road- FEC Railway.	6100’
Herbert Street (north side)	Carya Circle- Nova Road	1350’
Herbert Street (south side)	Golden Gate Dr.-Nova Road	3000’
Herbert Street (south side)	Village Terrace Dr.-City Center Dr.,	700’
Madeline Ave.	Clyde Morris Blvd.-Bruner Road	1235’
Madeline Ave.	Town Park Dr.- Sunset Cove Drive	2000’
Oak Street	Dunlawton Avenue- FEC Ry.	3200’
Ocean Avenue	Halifax Drive- Ridgewood Avenue	500’
Pioneer Trail	East of Stonehealth Lane- Turnbull Bay Road	7800’
Reed Canal Road (north side)	Red Sail Lane-East of Atlantic High School	2250’
Ridgewood Avenue	Poinciana Avenue- Rose Bay (east side)	2000’
Seminole Street	Riverside Drive- Ridgewood Avenue	400’
Spruce Creek Road	Herbert Street- Dunlawton Avenue	1700’
Spruce Creek Road (east side)	Oak Street- 200’ south	200’
Spruce Creek Road (west side)	Selin Circle-Little Town Rd.	900’
Spruce Creek Road (east side)	Nova Road –Angelina Court	1350’
Spruce Creek Road (west side)	Taylor Road- Central Park Blvd.	5150’
Taylor Road (north side)	Dunlawton Avenue- Clyde Morris Blvd.	2600’

Taylor Road	Taylor Branch Road-Williamson Blvd.	1400’
Taylor Road	Crane Lakes Blvd.- Forest Preserve Blvd.	875’
Taylor Branch Road	Dunlawton Avenue- Journey’s End Way	350’
Williamson Blvd. (east side)	Madeline Avenue to N. City Limits	1900’
Williamson Blvd. (east side)	Hockney Court.-1200’ N. of Willow Run Blvd.	4600’
Williamson Blvd. (east side)	Town West Blvd.-South 250’	250’
Willow Run Blvd.	Chardonnay Drive-Williamson Blvd.	980’
TOTAL		73,790’

Source: City of Port Orange, Department of Community Development, 2009

TABLE 3
PROGRAMMED TRANSPORTATION IMPROVEMENTS
FISCAL YEARS 2010-2015

TRANSPORTATION FACILITY	SEGMENT		CONSTRUCTION IMPROVEMENT	COST	FUNDING SOURCE
	FROM	TO			
BIKE/PED PROJECTS					
Clyde Morris Blvd.	Dunlawton Ave.	W. Pines Plaza Driveway	Sidewalk	$70,800	City/TPO
Cross-Town Trail	City Center Dr.	Nova Rd.	Trail	$568,618	City/TPO
Halifax Dr.	Dunlawton Ave.	Ocean Ave.	Bike-ped facility	$100,000	City/CRA
Herbert St.	Carriage Gate Dr.	Nova Rd.	Sidewalk & trail	$483,617	City/TPO XU
Herbert St.	Nova Rd.	Jackson St.	Sidewalk/bike lanes	$30,589	City/TPO XU
Peninsula Dr.	Dunlawton Ave.	Demotte Ave.	Sidewalk	$43,400	City /TPO XU
Ridgewood Ave.	N. City Limits	Dunlawton Ave.	Streetscape improvements	$3,982,500	FDOT/CRA
Spruce Creek Rd.	Dunlawton Ave.	Herbert St.	Trail	$250,000	City/TPO
	Taylor Rd.	Central Park Blvd.	Trail	$226,600	City/TPO
Taylor Rd.	Williamson Blvd.	Taylor Branch Rd.	Pedestrian improvements	$300,000	City/FDOT/ Developer
TRANSPORTATION SYSTEMS MANAGEMENT PROJECTS					
Clyde Morris Blvd.	At Pines Plaza/Wal-Mart driveway		Install traffic signal	$345,000	City/Developer
Dunlawton Ave.	Ridgewood Ave	I-95	Fiber optic addition	$250,000	FDOT
	At Spruce Creek Rd.		Intersection improvement	$750,000	CRA
	At Village Trail		Turn lane	$175,500	City/TPO
Halifax Ave.	Ocean Ave.	Dunlawton Ave.	New roadway alignment	$2,351,250	CRA
Ocean Ave.	Halifax Ave.	Ridgewood Ave.	New roadway alignment	$2,351,250	CRA
Pioneer Tr.	At Turnbull Bay Rd.		Intersection Improvement	$1,550,000	VCO
Ridgewood Ave.	At Herbert St. and Dunlawton Ave.		Intersection improvements	$2,050,000	FDOT
Taylor Rd.	At Devon Street		New traffic signal	$247,217	City/FDOT
	At Dunlawton Ave.		Traffic signal modification	$200,000	Developer
	At I-95 Interchange		WB left turn lane ext.	$200,000	City/FDOT/Developer
Williamson Blvd.	At Town West Blvd.		New traffic signal	$273,000	Developer
	At Pioneer Trail		Intersection improvements	$490,000	Developer
Willow Run Blvd.	At Clyde Morris Blvd.		Turn lane	$130,000	City/TPO
ROADWAY WIDENING PROJECTS					
Coraci Blvd.	Town West Blvd.	¼ mile south	New 2-lane divided	$850,000	Developer
	¼ mile south of Town West	Carmody Lakes Dr.	New 2-lane	$1,300,000	City/Developer
ROADWAY WIDENING PROJECTS CONTINUED					
Martin Rd.	Williamson Blvd. N	Williamson Blvd. S	New 2-lane road	$4,382,560	Developer

TRANSPORTATION FACILITY	SEGMENT		CONSTRUCTION IMPROVEMENT	COST	FUNDING SOURCE
	FROM	TO			
Williamson Blvd.	N. of Summer Trees Rd.	Town West Blvd.	Widen to 4 lanes	$2,420,000	Developer
	Airport Rd.	Pioneer Tr.	New 4-lane road	$16,990,796	Developer
Willow Run Blvd.	Yorktowne Blvd.	Williamson Blvd.	Widen to 4 lanes*	$1,310,400	City
Yorktowne Blvd.	Willow Run Blvd.	B-19 Canal	New 4-lane road	$2,909,000	Developer
	B-19 Canal	Hidden Lakes Dr.	New 4-lane road	$1,840,000	Developer
	Dunlawton Ave.	Taylor Rd.	New 4-lane road	$3,636,625	Developer
TRANSIT IMPROVEMENTS					
Transit Improvements	Dunlawton Ave. /Nova Area		Transfer Station	$125,000	VOTRAN
Transit Improvements	TBD		Five Shelters	$62,500	VOTRAN

Notes:
PE = Preliminary Engineering
ROW = Right-of-way
Const. = Construction
FDOT = Florida Department of Transportation
VCO = Volusia County
City = City of Port Orange
TPO= Volusia County Transportation Planning Organization
CRA = Community Redevelopment Agency

Sources:
FDOT's 2008 *Transportation Costs*
Volusia County TPO's *2025 Transportation Plan Update*
City of Port Orange Capital Improvement Program, 2009.

SCSA= FDOT Surface Transportation Program, Any Area''
* Includes traffic circle

TABLE 4
PLANNED CAPITAL IMPROVEMENTS
FISCAL YEARS 2016-2025

FISCAL YEAR	TRANSPORTATION FACILITY	SEGMENT		CONSTRUCTION IMPROVEMENT	COST IN $1,000s	FUNDING SOURCE
		FROM	TO			
2016-2020						
	Bruner Road	Terminus	Clyde Morris Blvd.	2-lane road extension	800	Developer
	City-wide			Bus stop improvements(5)	63	VOTRAN
	City-wide			Sidewalk improvements	3,601	City
	Clyde Morris Blvd.	At Wal-Mart/Pines Plaza driveway		Traffic signal	345	City/Developer
	Cross Town Trail Ph 2	Jackson St.	Nova Rd.	Trail	120	City/TPO
	Dunlawton Ave.	Halifax River	West city limits	Walklights rehabilitation	1,000	Developer/City/FDOT
	Halifax Dr.	Ocean Ave.	Ridgewood Ave.	Boardwalk	15,450	City/CRA
	Herbert St.	FEC Railway	Jackson St.	Sidewalk	147	City/Developer
		FEC Railway	Clyde Morris Blvd.	Bikeway improvements	1,012	City
	McGinnis Blvd.	Road “D”.	Williamson Blvd.	New 4-lane road	4,533	Developer
	Madeline Ave.	Ridgewood Ave.	Sauls Rd./McDonald Rd.	New 2-lane road	7,000	VCO
		At U.S. 1		Traffic signal	345	VCO/FDOT
	Nova Rd.	Eagle Lake Tr.	U.S. 1	Median landscaping	100	City/FDOT
	Ridgewood Ave.	At Rose Bay and at north city limits		Gateway landscaping	200	City
		At Fleming St. and at Rose Bay		Median Landscaping	100	City/FDOT
		North city limits	Rose Bay	“Complete streets” improvements	1,000	City/FDOT
	Riverwalk	Ridgewood Ave.		Transit and mobility improvements	125	CRA/City
		Ridgewood Ave.		Streetscape	3,983	CRA/City/FDOT
	Road “D”	McGinnis Blvd.	Coraci Blvd.	New 3-lane road	1,260	City/Developer
	Spruce Creek Rd.	At Taylor Rd.		Install roundabout/traffic circle	1,000	City/FDOT
	Taylor Rd.	Clyde Morris Blvd	Yorktowne Blvd.	Widen to 4 lanes	2,143	Developer
		Summer Trees Rd.	Forest Preserve Blvd.	Widen to 4 lanes	4,000	VCO
		Crane Lakes Blvd.	Forest Preserve Blvd.	Bikepath gaps	38	City/TPO XU
	Williamson Blvd.	North city limits	Town West Blvd.	Widen to 4 lanes w/median	23,000	Developer/VCO
	Yorktowne Blvd.	Dunlawton Ave.	Hidden Lakes Drive	Widen to 4 lanes	7,800	City

FISCAL YEAR	TRANSPORTATION FACILITY	SEGMENT		CONSTRUCTION IMPROVEMENT	COST IN $1,000s	FUNDING SOURCE
		FROM	TO			
2021-2025						
	City-wide			Bus Stop improvements	63	VOTRAN
	City-wide			Sidewalk Improvements	1,052	City
	Airport Rd.	Cypress Springs Pkwy.	South city limits	Widen to 4 lanes	8,800	VCO
	Coraci Blvd.	Madeline Ave.	Road "D'	New 2-lane road	3,122	Developer
		Carmody Lakes Dr.	Taylor Road	New 2-lane road	4,633	City/Developer
	Herbert St.	At Spruce Creek Rd./6th St.		Traffic Signal	250	City
	Madeline Ave.	Clyde Morris Blvd.	Williamson Blvd.	Median Landscaping	25	Developer
		Williamson Blvd.	Tomoka Farms Rd.	New 2-lane road	13,400	VCO/FDOT/Developer
	McGinnis Ave.	Madeline Ave.	Road "D"	New 4-lane road	4,533	Developer
	Oak St.	At Spruce Creek Rd.		Traffic Signal	250	City
	Spruce Creek Rd.	Herbert St.	Canal View Blvd.	New 2-lane road	1,300	City
	Village Tr.	At Country Ln.		Roundabout/Traffic Circle	500	City
	Willow Run Blvd.	Madeline Ave.	Williamson Blvd.	New 2-lane road	3,527	City/Developer
		At Yorktowne Blvd.		Roundabout/Traffic Circle	1,000	City
2026-2035	**(INFORMATION ONLY)**					
	Dunlawton Ave.	Clyde Morris Blvd.	Taylor Branch Rd.	Widen to 8 lanes	3,340	FDOT
	I-95	Beville Rd. (SR 400)	Pioneer Tr.	Widen to 6-lanes	23,928	FDOT
		At Pioneer Tr.		Interchange	20,000	FDOT
		Taylor Rd.	Doris Leeper Spruce Creek Preserve	New Trail	480	City
	Madeline Ave.	Long Grove Ln.	Town Park Blvd.	Widen to 4 lanes	5,900	City/Developer
	Pioneer Tr.	Turnbull Bay Rd.	Williamson Blvd.	Widen to 4 lanes	11,545	City/Developer
	Spruce Creek Rd.	Dunlawton Ave.	North of Nova Rd.	Widen to 4 lanes	9,455	City
	Taylor Rd.	Dunlawton Ave.	Williamson Blvd.	Widen to 8 lanes	6,500	City/FDOT
		Forest Preserve Blvd.	Coraci Blvd. Extension	Widen to 4 lanes	4,909	City/Developer

Notes:
FDOT = Florida Department of Transportation
City = City of Port Orange
VCO = Volusia County
Devel = Developers
Sources: FDOT's *Transportation Costs, 2004*, Volusia County TPO's *2025 Transportation Plan Update*, City of Port Orange, 2009

GOALS, OBJECTIVES, AND POLICIES

GOAL 1: MOBILITY IMPROVEMENT

ESTABLISH A TRANSPORTATION SYSTEM THAT PROVIDES MOBILITY, ACCESS AND CHOICES, THAT ENCOURAGES INFILL DEVELOPMENT AND ENERGY-EFFICIENT MULTI-MODAL TRANSPORTATION THROUGH THE DESIGNATION MOBILITY IMPROVEMENT ZONES.

Objective 1.1: *Establishment of Mobility Improvement Zones.* The City of Port Orange is designates three Mobility Improvement (MI) Zones, encompassing the geographic limits of the City. The City will utilize these designations to develop a multi-modal transportation system and address mobility needs throughout the City. The three MI zones are indicated in Figure 2-11.

Policy 1.1.1: Development in MI Zone 1, which consists of the Port Orange Town Center TCEA adopted in 2006, is exempt from traditional state-mandated transportation concurrency requirements. Development in MI Zones 2 and 3 is subject to concurrency standards and shall mitigate transportation impacts according to specific strategies identified for each MI Zone.

Policy 1.1.2: Capital improvements necessary to meet mobility needs may support transit, pedestrian and bicycle modes to reduce reliance on single-occupant auto travel.

Policy 1.1.3: The following mobility strategies shall be utilized in all MI zones, as appropriate:

- Transportation demand management programs
- Transportation system management programs
- Revised parking standards/regulations
- Community transit service
- Parking facilities that accommodate pedestrians and bicyclists safely and conveniently
- "Complete Streets" policy implementation
- Neighborhood traffic management programs
- Transit and pedestrian-oriented site design standards/regulations
- Pedestrian, bicycle, and transit facility amenities and enhancements such as landscaped and shaded routes and shelters

Policy 1.1.4: By 2015, the City shall adopt a city-wide TDM and TSM strategy based on the *TDM/TSM Action Plan* prepared for the City in 2009.

Policy 1.1.5: Transportation Impact Analysis (TIA) reports shall be required of new development, where applicable, as a tool to monitor development impacts.

Policy 1.1.6: The City shall periodically evaluate the effectiveness of the TCEA and each MI zone and, when necessary, make adjustments to policies to more effectively and efficiently meet mobility needs. Evaluation measures include:

- Changes in transit ridership and vehicle miles traveled on the roadway network, and
- Usage of strategically located bicycle and pedestrian facilities in each the TCEA and each MI zone.

Objective 1.2: *Mobility Improvement (MI) Zone 1*. In order to address specific mobility needs unique to MI *Zone 1 (Port Orange Town Center TCEA)*, the City shall implement specific strategies within this zone.

Policy 1.2.1: MI *Zone 1* shares the same boundaries as the Port Orange Town Center (POTC) redevelopment district and the TCEA previously established in 2006, as shown in Figure 2-11. Mobility within *Zone 1* shall be maintained by implementing an appropriate combination of strategies listed in *Policy 1.1.3* and zone-specific strategies and programs, as appropriate and as prioritized below, which shall include:

First Priority

- Transit facility enhancements
- Interconnected street and bicycle/pedestrian circulation system
- Right-of-way dedications

Second Priority

- Impact fees in lieu of off-site improvements
- Impact fee reductions with specified Transit-Oriented Development designs

Third Piority

- Water taxi service

Policy 1.2.2: The City shall require developments within the MI *Zone 1* to contribute toward the cost of mobility improvements identified, but not limited to, those under *Policies 1.1.3* and *1.2.1* by paying a combination of impact fees and proportionate fair share payment. The proportionate fair share payment may be allocated to more than one improvement strategy, but at least 75% must be applied to alternative mobility improvements listed in *Policies 1.1.3* and *1.2.1,* either on the development site or within ¼ mile of a designated transit stop. The remaining 25% may be allocated for roadway capacity improvement projects. Developers of properties in *MI Zone 1* are entitled to impact fee credits for off-site facilities constructed in conjunction with the development project.

Policy 1.2.3: The City will coordinate with VOTRAN or the TPO to prepare a feasibility study to develop a local community transit service plan for MI *Zone 1*. The study will include specific route alignments, headways, hours of operation,

and other service characteristics to address mobility. If the study concludes that the service is not feasible to achieve a minimum ridership, the City shall update the feasibility study periodically thereafter until the local transit service can be implemented.

Objective 1.3: *Mobility Improvement (MI) Zone 2.* In order to address specific mobility needs unique to MI *Zone 2*, the city shall implement specific strategies within this zone.

Policy 1.3.1: MI *Zone 2* encompasses the area as shown in Figure 2-11. Mobility within MI *Zone 2* shall be maintained by the implementing an appropriate combination of strategies listed in *Policy 1.1.3* and zone-specific strategies and programs, as appropriate and as prioritized below, which shall include:

First Priority

- Maintain adopted LOS standards through the concurrency management system
- Transit facilities enhancements
- Transit "super-stop" transfer facility construction
- Right-of-way dedications

Second Priority

- Higher-density residential development along transit corridors

Third Priority

- Impact fees with a minimum 5% increase above the base rate in lieu of off-site improvements
- Special assessment districts

Policy 1.3.2: The City shall establish proportionate fair share projects for development in MI *Zone 2* if needed to meet adopted LOS standards. These may consist of the transportation improvements identified in the Transportation Mobility Element, including roadway capacity, improvements, along with transit shelters and/or bicycle/pedestrian facilities on the development site or within ¼ mile. The proportionate fair share payment may be allocated to more than one mobility improvement strategy. Up to 75% of the payments should be allocated to roadway capacity projects intended to ameliorate the development's roadway impacts. The remaining 25% should be applied to roadway capacity projects or to alternative mobility improvements consisting of strategies listed in *Policies 1.1.3* and *1.3.1*. Developers of properties in MI *Zone 2* are entitled to impact fee credits for off-site facilities constructed in conjunction with the development project.

Objective 1.4: *Mobility Improvement (MI) Zone 3.* In order to address specific mobility needs unique to MI *Zone 3*, the city shall implement specific strategies within this zone.

Policy 1.4.1: MI Zone 3 encompasses the area as shown in Figure 2-11. Mobility within the MI *Zone 3* shall be maintained by implementing an appropriate combination of strategies and programs listed in *Policy 1.1.3* and zone-specific strategies which shall include, as appropriate and as prioritized below:

First Priority
- Maintain the adopted LOS standards through the concurrency management system
- Proportionate fair-share program
- Transportation impact fees

Second Priority
- Expansion of transit service and transit facility enhancements
- Transit "super-stop" transfer facility planning
- Higher-density residential development along transit corridors

Third Priority
- Special assessment districts
- Proportionate–fair share exceptions for TOD

Policy 1.4.2: Proportionate fair-share payments shall be required for new development in MI *Zone 3*, and will be assessed based on 100% of the vehicular impact of the development on the roadway system. Seventy-five percent of the payments should be allocated to roadway capacity projects intended to ameliorate the development's roadway impacts. The remaining 25% may be applied to roadway capacity projects or to alternative mobility improvements consisting of strategies listed in *Policies 1.1.3* and *1.4.1*. Developers of properties in MI *Zone 3* are entitled to City impact fee credits for off-site facilities constructed in conjunction with the development project.

Objective 1.5: *Community Design*. The City shall seek to create a more pedestrian-oriented and transit-friendly transportation network by utilizing a variety of context-sensitive designs for transportation facilities and urban design standards for new development, as may be applicable within each MI zone.

Policy 1.5.1: Mixed-use development will provide comfortable, convenient, and connected sidewalks, pathways and access to transit facilities.

Policy 1.5.2: By 2013, the City will develop a "complete streets" strategy to include multiple transportation modes into proposed plans for road improvements. The intent of this policy is to develop a comprehensive, integrated, multi-modal street network by coordinating transportation planning strategies and private development activities as follows:
- Provide safe and convenient on-site pedestrian circulation.
- Provide cross-access connections/easements or joint driveways where available and cost effective.
- Provide land or easements for the construction of public sidewalks, and/or auxiliary transit support facilities consistent with the design standards of the *VOTRAN Transit Development Design Guidelines*, with appropriate credits for developer contributions.
- Where appropriate, developers may be required to construct improvements listed below. The City may issue credits toward contribution requirements, if applicable:

- In-bound and out-bound turn lanes
- Transit facility improvements
- Adjacent and connecting sidewalks
- Streetscaping and landscaping within the public right-of-way
- Additional bicycle parking.

The City will apply the following guidelines in implementing this policy:

- Determine the applicability of these requirements considering the unique constraints of each development and redevelopment site, the context of each particular street, and compatibility with surrounding areas.
- Consider necessary requirements through design, planning, maintenance, and operations.

Policy 1.5.3: By 2013, the City shall amend the land development code and standard construction details to include site development requirements that define the minimum design and location of pedestrian and transit facilities, and improve and prioritize pedestrian access.

Policy 1.5.4: In conjunction with Future Land Use Element policies, the City shall create Transit Oriented Development (TOD) Overlay Zones for select nodes and corridors. The TOD overlays may contain unique design treatments for each of the MI zones and roadway types, and include but not be limited to provisions regarding:

- Special assessment district(s)
- Land development regulations that support compact development
- Maximum parking standards
- Minimum floor area ratios
- Maximum building setbacks
- Transit and pedestrian facilities.

Policy 1.5.5: It is the City's intent to become more pedestrian and transit-oriented. Within *MI Zone 1,* this shall be accomplished by utilizing urban design principles consistent with the redevelopment plan of the POTC. Within *MI Zone 2*, the City shall promote transit-oriented development for select mixed-use centers. Within *MI Zone 3*, the City shall promote transit-oriented development for community and regional nodes and other select areas. The urban design principles which shall be utilized as appropriate include, but are not limited to:

- Higher densities/ intensities and compact urban form;
- Building placement/build-to lines;
- First-floor retail in mixed-use buildings;
- Parking integration with alternative modes;
- Pedestrian/bicycle circulation and facilities;
- Roadway/right-of-way aesthetics;
- Landscaping, shaded pedestrian routes, and transit shelters;
- Pedestrian-level lighting;
- Transit facility enhancements;

- Development incentives for transit-oriented design; and
- Access management, including select driveway closures.

Policy 1.5.6: For new development and redevelopment, the City shall limit the size of blocks and lengths of cul-de-sac and will encourage greater connectivity between blocks and streets. Exceptions may be made where environmentally sensitive natural features or existing development prevents the extension and connection of streets.

GOAL 2: WELL-CONNECTED AND EFFICIENT MULTI-MODAL SYSTEM

TO PROVIDE A MULTI-MODAL TRANSPORTATION SYSTEM THAT IS SAFE, CONVENIENT, ATTRACTIVE, COST-EFFECTIVE, OPERATIONALLY AND ENERGY EFFICIENT, AND INTEGRATED; THAT PROMOTES HEALTHY LIFESTYLES, REDUCES DEPENDANCE ON SINGLE–OCCUPANT AUTOMOBILES, AND PROTECTS THE ENVIRONMENT; AND THAT PERMITS THE EFFICIENT MOVEMENT OF GOODS AND PEOPLE FOR ECONOMIC DEVELOPMENT.

Objective 2.1: *Bicycle/Pedestrian Modal Split.* The City shall increase the use of non-motorized modes of transportation by constructing a continuous network of bikeways and pedestrian facilities. The City will work to achieve a 1.5% modal split for bicycle and pedestrian traffic by the year 2015. The City will utilize revised modal split targets, which will be adopted after obtaining 2010 Census Data.

Policy 2.1.1: By 2013, the City may prepare a pedestrian and bicycle master plan, which shall analyze the existing system that is in place and identify alternative approaches to expand upon and improve the system, with an emphasis on on-road bike lanes/bike-paths and pedestrian and bicycle trails.

Policy 2.1.2: The City shall strive to increase the use of non-motorized modes of transportation by constructing a continuous network of bikeways and pedestrian facilities.

Policy 2.1.3: The City shall explore the possibility of developing a trail system connector from east of I-95 and south of Taylor Road to the Doris Leeper Spruce Creek Nature Preserve on the south side of Spruce Creek, utilizing the existing northbound I-95 bridge.

Policy 2.1.4: The City shall participate with FDOT in the "Conserve by Bicycle" program and the "Safe Paths to School" program.

Policy 2.1.5: The City shall require a greater mix of uses in new developments with Future Land Use designations of Planned Community and Mixed-Use Center, in such a way that homes, parks, schools, shops, and employment centers, are within walking or biking distance (½ mile) of one another. In existing areas where such a

mix is not present, the City shall encourage infill development to achieve it.

Policy 2.1.6: The City shall use the Volusia Trails Plan and Bicycle Map as a guide to supplement the transportation network with interconnected, non-motorized bicycling and walking corridors.

Policy 2.1.7: The City shall develop interconnected pedestrian and bicycle access ways to public uses such as schools, libraries, parks, intermodal transit stops and nodes, and between residential and commercial developments, where feasible.

Objective 2.2: *Bicycle/Pedestrian Design Standards.* The City shall revise and apply design standards for bicycle and pedestrian facilities by 2015.

Policy 2.2.1: New bikeways in the City, including new and retrofitted bike lanes, bike-paths and trails, should comply with the *FDOT Florida Pedestrian Planning and Design Guidelines* and the *Florida Bicycle Facilities Design Guidelines*, when feasible.

Policy 2.2.2: Pedestrian and bicycle facilities should provide effective and convenient access to new commercial and multi-family residential structures. Main public entrances to buildings should include direct pedestrian access points from parking areas and from adjacent sidewalks and bikeways.

Policy 2.2.3: In conjunction with new development or road improvements, sidewalks wide enough to serve bicycle traffic should be established on one side of every arterial and collector street, with sidewalks for pedestrian use also established on the opposite side of all arterial streets. Along the Dunlawton Avenue corridor, sidewalks wide enough to serve bicycle traffic shall be provided on both sides, pursuant to the Dunlawton Corridor Plan.

Policy 2.2.4: As funding is available, the City shall seek to modify existing intersections to enhance pedestrian use by providing that:

- all intersection corners are illuminated;
- traffic signals are adequately timed to allow a pedestrian crossing;
- curb ramps and audio/tactile signal systems are provided in areas with large elderly and handicapped populations; and
- all sidewalks and crosswalks are constructed to comply with the Americans with Disabilities Act, 1991.

Policy 2.2.5: As funding is available, the City shall work to provide mid-block pedestrian crossings where needed, and study the possibility of building pedestrian bridges over major thoroughfares, such as Dunlawton Avenue, Ridgewood Avenue, I-95, Williamson Boulevard, Clyde Morris Boulevard and Nova Road.

Policy 2.2.6: New residential developments with densities of one unit per acre or

greater shall provide sidewalks on both sides of every street. In addition, where cul-de-sacs within a development are located near adjacent collector or arterial streets, then a sidewalk may be required to provide a connection.

Policy 2.2.7: The City shall require new non-residential development and re-development in mixed-use land use categories to be pedestrian-friendly as follows:

- by providing directly connecting walkways from streets to buildings and parks, and
- by restricting or calming vehicle traffic in areas of heavy pedestrian usage.

Policy 2.2.8: In the development of priority transportation enhancement projects, extra consideration will be given to projects which further the creation of multi-use trails.

Policy 2.2.9: Developers of projects adjacent to roadways with constrained or substandard rights-of-way may be required to provide a bicycle and/or pedestrian access easement to ensure that proper facilities and access are provided.

Objective 2.3: *Transit Mode*. The City shall work with and continue to encourage VOTRAN to provide a safe, convenient, and efficient public transit system to the citizens of Port Orange at an acceptable level of service and with headways as close as possible to 30 minutes or less. The City shall work with VOTRAN to achieve a 1.0% modal split for transit use by the year 2015, and increase the total passengers per revenue mile on routes serving the City. The City will utilize new targets after obtaining 2010 Census data.

Policy 2.3.1: The City shall designate all roads serviced by existing and/or proposed VOTRAN bus routes as "public transportation corridors," as shown on Figure 2-6.

Policy 2.3.2: The City shall strive to maintain all roads within designated public transit corridors at a level of service (LOS) sufficient to support the VOTRAN bus system.

Policy 2.3.3: The City shall support the operational LOS performance standards for fixed-route transit systems as provided by the TPO in its *2035 Transportation Plan Update*.

Policy 2.3.4: The City shall guide the placement, type, and density of new development along public transportation corridors, in a manner consistent with the Future Land Use Element, so as to achieve the level of ridership needed to support mass transit.

Policy 2.3.5: The City shall assist VOTRAN in initiating transit system improvements to increase total passenger per revenue miles traveled on routes serving the City each year.

Policy 2.3.6: The City shall require new developments to provide bus stop(s) with

shelters if located on a public transportation corridor, at locations prioritized by the number of riders, consistent with VOTRAN standards.

Policy 2.3.7: The City shall coordinate with VOTRAN on the location of transit stops to serve proposed major commercial and residential developments.

Policy 2.3.8: The City shall utilize the VOTRAN *Transit Development Design Guidelines* and shall coordinate with VOTRAN in the design of recommended transit improvements.

Policy 2.3.9: The City shall require major trip generators and attractors located on a public transportation corridor to incorporate elements of "transit-friendly design," as specified in the VOTRAN *Transit Development Design Guidelines* or equivalent. Specific elements may include:

- Clearly delineated walkways from the building to the transit stop;
- Buildings and transit stop placed closer to the street, and
- Incorporating elements of transit-oriented design.

Policy 2.3.10: As a transportation demand management (TDM) strategy, the City shall establish a maximum parking requirement for new developments along public transportation corridors in order to reduce surplus parking that encourages low-occupancy automobile trips.

Policy 2.3.11: The City shall work with VOTRAN to improve existing and future bus stops to include benches, shelters, clearly marked signs, lights, and system information, consistent with Sec. 337.408, F.S. All bus stops shall be safe, convenient, meet the needs of all users, particularly the "transportation disadvantaged", and connect to the City's sidewalks and bikeways.

Policy 2.3.12: The City will coordinate with VOTRAN, the FDOT and other agencies to locate and/or develop park-and-ride lots and other parking areas to support transit use.

Policy 2.3.13: The City will coordinate with VOTRAN and the TPO to develop a "super-stop" transfer center at or near the intersection of Dunlawton Avenue and Nova Road, and at the I-95 regional commercial node.

Policy 2.3.14: The City will support efforts to develop the Central Florida Commuter Rail project (SunRail) and explore opportunities to provide express service to stations in western Volusia County.

Policy 2.2.15: The City supports efforts of the TPO, FDOT and other local governments to initiate intrastate/inter-city passenger rail service along the FEC Railway corridor.

Objective 2.4: *TSM Program.* By the year 2015, The City's shall develop and adopt a Transportation System Management (TSM) program to enhance traffic capacity, safety, and efficiency in congested areas.

Policy 2.4.1: The City shall support and participate in the TPO's Congestion Management System (CMS) and FDOT's Mobility Management Plan (MMP).

Policy 2.4.2: The City will implement the TSM strategies and improvements identified in the TSM program and as identified through annual system evaluations.

Policy 2.4.3: Funding to implement the TSM program will be secured through developer contributions, impact fees and proportionate-fair-share agreements, CRA funding, City general funds and intergovernmental funding through the TPO and FDOT, as available. This program will be implemented on a continuing basis, as funds are available.

Policy 2.4.4: The City will evaluate available TSM strategies as a cost-effective alternative to widening roadways.

Objective 2.5*: TDM Program*. By the year 2015, the City shall adopt and implement a Transportation Demand Management (TDM) program which identifies incentive-based strategies to reduce travel demand and which shall be included among the mitigation options that developers may implement to reduce mobility impacts.

Policy 2.5.1: The City government should consider encouraging its employees and those of local businesses to participate in the FDOT Commuter Assistance Program, administered in Volusia County by VOTRAN.

Policy 2.5.2: Funding to implement the TDM program will be secured through developer contributions, impact fees and proportionate-fair-share agreements, CRA funds, City general funds and intergovernmental funding through the TPO and FDOT, as available. This program will be implemented on a continuing basis, as funds are available.

Policy 2.5.3: As part of the TDM program, the City will assist local employers in implementing TDM strategies that have been shown to work in similar locations, such as ride sharing, telecommuting, and flex-time. The City will encourage ride sharing among its own employees and provide opportunities for flex-time for appropriate personnel.

Objective 2.6: *Level of Service and Operations.* The City shall maintain all transportation facilities so that they function at a minimum adopted level-of-service (LOS), as established by (FDOT, Volusia County, and the City of Port Orange. Transportation facilities needed to maintain the adopted level-of-service (LOS) standard shall be evaluated when reviewing all

new development prior to the issuance of a final development order.

Policy 2.6.1: Pedestrian and Bicycle LOS. The City strives to have all pedestrian and bicycle facilities operate at Level of Service "D" as established in the FDOT *2009 Quality Level of Service Handbook,* or latest edition thereof.

Policy 2.6.2: Roadway facility LOS. The City strives to have all roadway facilities operate at adopted levels of service consistent with those listed in the latest editions the FDOT *Quality Level of Service Handbook,* and/or *Highway Capacity Manual,* or by specially conducted travel-time delay studies.

- All roads included in the Florida Intrastate Highway System (FIHS, Sec. 338.001, F.S.) and Strategic Intermodal System (SIS, Sec. 339.61, F.S.) at LOS "C" or better, or as otherwise prescribed by FDOT.
- All State-maintained non-SIS/FIHS roads and designated hurricane evacuation routes at LOS "D" or better.
- South Williamson Boulevard (*Spruce Creek* to Airport Road) at LOS "D," since this roadway was partially funded through the Transportation Regional Incentive Program (TRIP).
- All County and City major arterials and collectors at LOS "E" or better.
- Constrained roadways shall be permitted to operate at the volume/capacity ratio not greater than 134% by 2025. Alternative mobility strategies shall be applied within these corridors.

Policy 2.6.3: Prior to the approval of an application for a subdivision plan or site plan, the City will evaluate impacts on roadways and other transportation facilities necessary to support the development by requiring a traffic impact analysis report. All new developments proposed within the City shall be required to submit traffic impact analysis studies consistent with the Volusia County TPO Guidelines. The City may grant *de minimus* traffic volume exceptions up to a cumulative 10% degradation of the adopted peak-hour LOS standard, as long as the facility is not an evacuation route or SIS facility.

Policy 2.6.4: The City will require a traffic impact analysis to be provided with applications for Comprehensive Plan and Future Land Use amendments that affect the City's transportation system. The analysis must be prepared pursuant to the DCA and FDOT requirements as contained in the "*Local Government Comprehensive Planning Review Guidelines, 2007,*" as amended, and the "*Transportation Concurrency Best Practices Guide, 2007,*" as amended. The City shall also require an analysis of vehicle miles traveled, to demonstrate the effect of the amendment on travel patterns and the degree to which the amendment furthers the City's mobility goals.

Policy 2.6.5: Developments that are projected to cause a roadway segment to operate below the adopted LOS may be required to participate in the City's Fair-Share program.

Objective 2.7: *Safety and Efficiency.* The City, in cooperation with FDOT, the ECFRPC, and the Volusia County TPO, shall improve the safety and efficiency of the existing transportation network and preserve the integrity of the system.

Policy 2.7.1: The City, in coordination with other government agencies and private developers, shall schedule transportation improvements based on the schedules listed in Transportation Mobility Element.

Policy 2.7.2: The City shall consider safety as the highest priority when evaluating potential transportation system improvements and enhancements.

Policy 2.7.3: The City shall improve the efficiency of the transportation system by providing alternatives to motor vehicle use, improving signal systems, constructing turn lanes, improving connections between developments and other traffic operational improvements strategies. Alternative modes and facility improvements, including intelligent transportation systems (ITS), shall be considered when designing new roads and the re-constructing existing facilities.

Policy 2.7.4: The City shall ensure that its transportation system contributes to the ability of Florida's citizens and visitors to access services, jobs, markets, and attractions in an efficient and timely manner.

Objective 2.8: *Constrained Roadways.* On a periodic basis, the City shall, in cooperation with FDOT the ECFRPC, and the Volusia County TPO, identify and officially designate all existing and potentially constrained roadway segments within the Port Orange city limits. The City shall work with these agencies to maintain and improve the operating efficiency on all designated constrained roadway facilities and to address mobility on roadways within the Transportation Concurrency Exception Area and the Mobility Improvement Zones.

Policy 2.8.1: The City shall maintain a map of officially designated constrained facilities. The City-adopted constrained facilities on collector and arterial streets are indicated on Figure 2-4.

Policy 2.8.2: The City shall work with FDOT to manage, maintain, and to the extent feasible, improve the operational efficiency on constrained facilities. Adding turn lanes or making minor adjustments to roadway alignments shall be permitted within constrained corridors, but adding through lanes shall not.

Policy 2.8.3: The City shall apply TSM, TDM and other multi-modal strategies to improve operating conditions on constrained facilities.

Policy 2.8.4: New developments, regardless of size, may be required to provide operational improvements to the City's transportation system to mitigate their impacts on the system in accordance with the Concurrency Management System provisions set forth in the Capital Improvements Element of this Plan, to maintain the City's level-of-service (LOS) standard and improve the safety of the City's

roads ensure smooth traffic flow, and to aid in the elimination of hazards. Operational improvements may include the addition of turn lanes, deceleration lanes, sidewalk extensions and connections, sign placement, bus system amenities, bicycle facilities, signals and pavement markings. New developments within the Transportation Concurrency Exception Area shall not be required to maintain roadway LOS standards, but shall be required to comply with this policy through multimodal improvements such as public transit facilities, community trolley/shuttle facilities/service, or other comparable mitigation as identified by the City.

Policy 2.8.5: Developments that are projected to negatively impact an intersection or roadway segment will be required to participate in the City's Concurrency and Fair-Share program set forth in the City's Proportionate Fair-Share Ordinance located in the Land Development Code. The Concurrency and Fair-Share program, mandated by state law, provides a means for development to pay for infrastructure needs to support it rather than rely on local governments or taxpayers to provide such needs. Failure to participate will result in no final plan approval and no issuance of a development order.

Objective 2.9: *Right-of-Way Requirements.* The City shall coordinate with the County and State to identify, prioritize and acquire land for future right-of-way and public parking areas.

Policy 2.9.1: Where the acquisition of right-of-way by any agency results in non-compliance with requirements of the Land Development Code for building setbacks and landscape buffers, provisions shall be utilized to re-establish the buffer and address non-conformities.

Policy 2.9.2: The City shall maintain standards for minimum rights-of-way widths for each type of roadway. All new development shall be required to donate or reserve right-of-way adjacent to arterial or collector roadways with substandard right-of-way widths prior to the issuance of a final development order.

Policy 2.9.3: All building setbacks for new construction and building additions shall be measured from future right-of-way lines once such lines are established.

Policy 2.9.4: The City shall not abandon, sell, or otherwise convey existing rights-of-way for roadways from public ownership unless a determination has been made that the right-of-way will not be needed for future improvements.

Policy 2.9.5: All planned arterial and collector roadways shall be dedicated to the public upon completion of construction and acceptance by the government agency maintaining the roadway.

Policy 2.9.6: The required right-of-way landscape buffers shall not be used for additional right-of-way without landscape mitigation.

Policy 2.9.7: The City will seek opportunities to acquire lands for public parking to support transit service, redevelopment and park-and-ride lot(s). Such facilities may consist of separate designed parking lots, leased lots, or shared-use facilities.

Objective 2.10: *Access Management.* The City shall establish access management standards for arterials, collectors, and local streets consistent with those of the administrative jurisdictions.

Policy 2.10.1: New roadways should be configured so that primarily arterials and collectors intersect with or have direct access to an arterial street, and the number of new intersections of arterials and local streets is limited.

Policy 2.10.1: Single-family lots with frontage on more than one street shall have access from the street with the lower functional classification. No new single-family, duplex or triplex lots shall directly access arterial or collector roadways.

Policy 2.10.3: All access points shall be consistent with City, County and State access regulations. Shared access or variances may be required to achieve separation standards.

Policy 2.10.4: Traffic signs and signals shall be installed as warranted and directed by the *Manual on Uniform Traffic Control Devices*.

Policy 2.10.5: Along arterial roadways, the City may require service roads to be constructed, cross-access easements to be provided, or public roadways to be dedicated as a condition of a development project approval.

Policy 2.10.6: The City shall require new roadways to be dedicated to the public when there is a compelling public interest for the roadways to connect with the existing public roadway network.

Policy 2.10.7: In order to achieve an interconnected roadway network, all subdivisions shall have at least two points of non-emergency access open to motor vehicle traffic.

Policy 2.10.8: All new subdivisions shall "stub out" to adjoining undeveloped lands and connect to roadways that are "stubbed out" at their boundaries. Exceptions can be made where topographical or environmental conditions preclude vehicular connections. In such cases, the City may instead accept connections for bicycles and pedestrians.

Policy 2.10.9: The City shall update the Dunlawton Avenue Corridor Plan and prepare corridor plans for other select arterial and collector roadways. The Plans will include access management, utility needs and aesthetic features in order to promote these roadways for economic development in accordance with Florida Statutes.

Objective 2.11: *Parking*. The City of Port Orange will maintain regulations to provide safe and convenient motor vehicle and bicycle parking.

Policy 2.11.1: All new developments in the City shall continue to provide adequate off-street parking for motorized and non-motorized vehicles prior to the issuance of a final development order.

Policy 2.11.2: Parking areas shall be landscaped. Additionally, the City will encourage the use of reflective surfaces to reduce the urban heat island effect.

Policy 2.11.3: The City shall develop incentives for reduced parking standards for commercial uses and higher-density residential projects which apply transit-oriented design standards to encourage transit, walking and bicycle use.

Policy 2.11.4: The City shall encourage the use of shared parking and preferential parking for rideshare vehicles and energy efficient vehicles.

Objective 2.12: *Evacuation.* The City's roadway network shall provide a safe and rapid means of coastal evacuation for the citizens of Port Orange and adjacent cities, as outlined in the Coastal Zone Management Element.

Policy 2.12.1: During emergency evacuations, City emergency service personnel shall facilitate efficient evacuation to ensure that hurricane evacuation routes operate at LOS "D" or better.

Policy 2.12.2: The City shall coordinate with VOTRAN to assist in the evacuation of transit-dependent persons.

Policy 2.12.3: The City will avoid public investment in roadway capacity improvements which encourage or subsidize an increase in development density in coastal high hazard areas that would increase the evacuation time beyond 12 hours.

Objective 2.13: *Protect I-95 from Non-Interstate Traffic*. The City shall, in cooperation with FDOT, continue to explore, develop, and implement policies to discourage local traffic from using the federal Interstate Highways (I-95 and I-4) and the Florida Intrastate Highway System (FIHS)/Strategic Intermodal System (SIS).

Policy 2.13.1: Encourage local traffic to use alternatives to I-95, such as Williamson Boulevard, Yorktowne Boulevard, Clyde Morris Boulevard, Nova Road, and Ridgewood Avenue/U.S. 1.

Policy 2.13.2: Coordinate with FDOT regarding the impact of land use decisions in the vicinity of FIHS corridors.

Objective 2.14: *Design Standards and Maintenance*. The City shall adopt, maintain, and update design standards for transportation facilities. All new and re-constructed roads shall be designed and constructed to conform with minimum design standards.

Policy 2.14.1: New and reconstructed roadways, sidewalks, bikeways, trails, transit shelters and other transportation facilities shall comply with minimum design standards. The City may adopt standards by reference or ones similar to those from the following sources:

- Manual of Uniform Standards for Design, Construction and Maintenance for Streets and Highways (The Green Book),
- The Manual of Uniform Traffic Control devices,
- The Florida Department of Transportation 1986 Standards Specifications for Road and Bridge Construction, and
- Context-sensitive designs endorsed by ITE and AASHTO.

Policy 2.14.2: Private streets shall be constructed to the same standards as public streets, and shall be maintained by the homeowners association or other means approved by the City.

Policy 2.14.3: The City shall pursue paving of all unpaved streets within City rights-of-way which provide access to existing development. Special assessments of abutting property owners shall be considered as a means to fund the improvement costs.

Policy 2.14.4: The City shall schedule timely maintenance, resurfacing, and repair of roads, bikeways, sidewalks, and bridges, to minimize costly reconstruction and enhance safety.

Policy 2.14.5: The City shall continue to permit flexibility for constructing and retrofitting facilities in substandard rights-of-way in order to preserve unique natural features. The City may permit alternative roadway designs on the local street system in order to encourage the preservation of unique vegetation and large trees.

Policy 2.14.6: The City shall consider alternative roadway sections that accommodate narrower rights-of-way and roadway widths in the context of traditional neighborhood development.

Policy 2.14.6: The City shall be empowered to allow alternative roadway layouts, provided that such layouts are consistent with the functional purpose of planned City roadways.

Policy 2.14.7: The City shall require the use of alternative designs for intersections, which may include traffic circles (roundabouts) and traffic calming measures such as chokers, chicanes, and textured or colored surfaces, so long as the maintaining agency (e.g. Florida Department of Transportation or Volusia County) approves.

Policy 2.14.8: Freight terminal access for large vehicles shall be considered in the design of the transportation system.

Objective 2.15: *Transportation Funding.* The City will systematically review transportation system funding resources and options on at least a yearly.

Policy 2.15.1: The City may pursue grants, developer contributions, special assessments, impact fees, proportionate-fair share agreements, and other funding sources to finance construction of new transportation facilities and services.

Policy 2.15.2: The City shall not assume maintenance of substandard private roadways until such roadways are brought into compliance with City design standards, unless specifically authorized by the City Council.

Policy 2.15.3: Developments approved prior to the adoption of the 2010-2025 Comprehensive Plan update with conditions to improve or fund improvements to the transportation system shall not be exempted from those conditions. Nothing in this plan shall be deemed or construed to eliminate any requirement previously placed upon a development as a condition of approval.

Policy 2.15.4: The City will encourage the development of "Florida Transportation Corporation Act" corporations (private non-profit corporations acting on behalf of and under contract with FDOT), to obtain rights-of-way and assist in the planning and design of improvements to the State roadways in the City.

GOAL 3: COORDINATION AND PLANNING

TO CREATE A TRANSPORTATION PLANNING PROCESS THAT IS COORDINATED WITH OTHER JURISDICTIONS AND AGENCIES, AND CONSIDERS THE EFFECT OF NEW TRANSPORTATION IMPROVEMENTS ON ADJACENT LAND USES.

Objective 3.1: *Planning Coordination.* The City shall coordinate its transportation planning with the Transportation Planning Organization (TPO), Volusia County, FDOT, VOTRAN, adjacent cities and other transportation agencies.

Policy 3.1.1: The City shall promote a comprehensive transportation planning process which coordinates state, regional, and local transportation plans.

Policy 3.1.2: The City shall support, and where possible, participate in the FDOT and TPO long-range mass transit and multi-modal transportation plans

Policy 3.1.3: The City shall utilize the Volusia County TPO Long-Range Transportation Plan (LRTP) as a basis for planning and programming future

transportation improvements. In coordination with FDOT and the TPO, the City shall participate in updates to the LRPT to determine its transportation needs from now until the next planning horizon.

Policy 3.1.4: The City shall send a representative to attend all relevant transportation planning meetings and shall communicate with other agencies involved in transportation planning in the Port Orange area.

Policy 3.1.5: The City shall keep the other agencies involved in transportation planning in the Port Orange area informed of the City's plans and policies for transportation improvements. Written notification of the status of the City's current plans shall be sent to the other agencies on a regular basis.

Policy 3.1.6: Transportation investments in major travel corridors and facilities will be coordinated with local, regional, and state agencies to enhance system efficiency and minimized adverse environmental impacts.

Policy 3.1.7: The City shall work with FDOT to ensure that state transportation investments in major travel corridors are designed and constructed to accommodate multiple modes.

Policy 3.1.8: In accordance with state policy, the City shall encourage adjacent communities and municipalities to ensure that existing port facilities and airports are being used to the maximum extent possible before expanding or developing new facilities.

Policy 3.1.9: The City shall encourage the construction and utilization of a state-wide public transportation system, including but not limited to inter-city or a high-speed rail system, in lieu of highway system expansion, where appropriate. The City will explore ways to support efforts by FDOT and other jurisdictions to establish AMTRAK service for the region on the FEC Railway line.

Policy 3.1.10: In cooperation with state, regional, and local agencies, the City shall ensure that its transportation system provides maximum access to jobs and markets.

Policy 3.1.11: In cooperation with state, regional, and local agencies, the City shall promote the effective coordination of various transportation modes in urban areas to assist urban development and redevelopment.

Policy 3.1.12: The City shall regulate development in the flight path and clear zones of the Spruce Creek Fly-In airport to ensure that new development will not adversely affect flight operations.

Policy 3.1.13: The City will continue to pursue attempts to acquire and rehabilitate the FEC Railway Depot using grant funds from the State Historic Preservation Office, SAFETEA-LU Transportation Enhancement funds, private donations and other sources.

Policy 3.1.14: The City's future transportation development will be guided by the policies set forth in the ECFRPC's Strategic Regional Policy Plan.

Objective 3.2: *Land Use.* The City will ensure that existing and proposed population densities, housing and employment patterns, and land uses are consistent with the transportation modes and services proposed to serve these areas.

Policy 3.21: All changes to the City's transportation system shall be consistent with the adopted land uses within the City. Conversely, all changes in land use shall be consistent with the transportation system's ability to support those changes, unless otherwise prescribed for the Transportation Concurrency Exception Area.

Policy 3.2.2: Transportation planning and analysis within the area identified on the Future Land Use Map as Planned Community-Westside shall be governed by the following provisions:

A. The number of external trips generated as a result of development shall not exceed 62,600 trips per day. This number is equal to that which would be generated by the land uses shown on the adopted Future Land Use Map for the Planned Community-Westside area and the current and programmed roadway network conditions as of June 25, 2001. Any proposed intensification of these uses shall require the City or developer of this property to demonstrate, by a professionally acceptable traffic impact analysis, that the additional traffic will not result in a degradation to the adopted level-of-service standard for the roadways within the area where the project traffic exceeds 10% of the level of service "C" volumes, unless appropriate measures are identified and implemented in concert with additional traffic impacts. Additionally, the City shall ensure that traffic impacts from Planned Community-Westside will not result in a degradation to the adopted level-of-service standard for the roadways adjacent to the Kirton property, located immediately north of Planned Community-Westside, unless appropriate measures are identified and implemented in concert with additional traffic impacts. The results of this determination shall be provided to the City of Daytona Beach.
B. Before any development occurs, the City shall provide the City of Daytona Beach, the Volusia County TPO, the Volusia County Traffic Engineering Department, and FDOT District 5 with a future traffic impact analysis of the property using the most recent version of the Central Florida Regional Planning Model (CFRPM). This analysis will be based upon the Future Land Use Map designation of the property as of June 25, 2001. The City shall also provide an analysis utilizing the anticipated land use impacts and planned roadway network resulting from the proposed development of this property.
C. The City will continue to provide a report to the City of Daytona Beach, Volusia County, Volusia County TPO, DCA, and FDOT District 5, on an annual basis at the end of each calendar year. The report utilizes background traffic data from FDOT, Volusia County and the City of Port Orange. The assessment includes a traffic distribution and assignment

based on either the CFRPM or best professional practices resulting from local knowledge. The limits of the study area shall be where the project traffic exceeds 10% of the level of service "C" volumes on collector or higher-classified roadways. The study shall include the following road segments and intersections when traffic volumes generated by Planned Community-Westside create impacts on those segments and intersections in excess of 10% of the level-of-service "C" volumes:

Existing Segments:
Beville Rd. (I-95 to Clyde Morris Blvd.)
Williamson Blvd. (Beville Rd. to Airport Rd.)
Taylor Rd. (Clyde Morris Blvd. to CR 415)
Clyde Morris Blvd. (Madeline Ave. to Taylor Rd.)
Madeline Ave. (Williamson Blvd. to Nova Rd.)
CR 415 (Pioneer Tr. to US 92)
Willow Run Blvd. (Williamson Blvd. to Clyde Morris Blvd.)
Dunlawton Ave. (I-95 to Nova Rd.)

Future (Proposed) Segments:
Yorktowne Blvd. extension (Taylor Rd. to Willow Run Blvd.)
Madeline Ave. (LPGA Blvd. extension to Williamson Blvd.)
LPGA Blvd. extension (CR 415 to US 92)

Existing Intersections:
Beville Rd. / Williamson Blvd.
Willow Run Blvd. / Williamson Blvd.
Willow Run Blvd. / Clyde Morris Blvd.
Clyde Morris Blvd. / Dunlawton Ave.
Clyde Morris Blvd. / Madeline Ave.
Taylor Branch Rd. / Dunlawton Ave.
Taylor Rd. / Williamson Blvd.
Taylor Rd. / CR 415
Williamson Blvd. / Madeline Ave.
Williamson Blvd./Town West Blvd.
CR 415 / Pioneer Tr.
Yorktowne Blvd. / Dunlawton Ave.
Dunlawton Ave. / Nova Rd.

Future (Proposed) Intersections:
US 92 / CR 415
Madeline Ave. / LPGA Blvd./CR 415
Yorktowne Blvd. / Willow Run Blvd.

The report shall contain the following information:

- Development status of the property indicating the location and intensity of development, and list of proposed developments currently under City review, for which a Development Order has not yet been issued;
- Summary of traffic impacts (AADT, peak hour trips, segment LOS, etc.) generated by all development projects within Planned

Community-Westside that received a Certificate of Occupancy during the previous year, as well as by projects that are expected to be completed in the coming year;

- Identification of potential external impacts on local, county and state roads outside the Planned Community; and
- Copies of the current and proposed Capital Improvements Element, Capital Improvements Budget, and Five-Year Work Programs of Port Orange, Volusia County, and FDOT.

D. The above-mentioned analysis shall be used for the planning and development of financially feasible capital improvements. The City of Port Orange Concurrency Management System shall provide the appropriate enforcement mechanism such that the City cannot issue development orders for projects which result in a degradation of the level of service below those standards contained in the Port Orange Comprehensive Plan and Land Development Code. This monitoring program shall be done on an annual basis and shall continue until the Planned Community-Westside is built out.

E. The City shall further notify Volusia County of future zoning changes to the Macro CDP, pursuant to the Interlocal Planning Agreement between the City and the County.

Policy 3.2.3: In cooperation with Volusia County, the City shall limit trips from the City wellfield properties so as not to exceed 5% (13,750 daily trips) of the level of service capacity on the Volusia County thoroughfare network or cause any part of the network to operate below the adopted level of service standard. In the event that the trips generated from the City wellfield properties do exceed 5% of the adopted level of service capacity, the City will provide transportation infrastructure improvements or other appropriate mitigation measures consistent with Volusia County's concurrency management regulations.

Policy 3.2.4: The City shall limit trips from Cracker Creek [parcel numbers 6330-00-00-0160; 6330-00-00-0180; 6330-00-00-0170; 6225-03-00-0070] to 1,815 Average Daily Trips, so as to not create a significant impact on the Volusia County thoroughfare network and State roadway facilities.

Policy 3.2.5: As a condition of PUD approval, Developers will construct the following transportation improvements as generally illustrated on Figure 2-4 of the Transportation Element:

(i) Williamson Boulevard extension from its current terminus, 0.60 miles south of the intersection of Airport Road and Williamson Boulevard, to Pioneer Trail west of I-95;

(ii) Transportation improvements along Pioneer Trail centered at, but not limited to, the intersection with Williamson Boulevard to accommodate turning vehicles accessing the PUD property; and

(iii) Martin Road.

GOAL 4: AN ENVIRONMENTALLY SOUND AND ENHANCED TRANSPORTATION NETWORK

TO CREATE A TRANSPORTATION SYSTEM THAT IS SUSTAINABLE, AND THAT PROTECTS THE NATURAL ENVIRONMENT BY REDUCING TRAVEL DEMAND, ADVERSE IMPACTS ON AIR QUALITY, WATER QUALITY, NOISE, AND WILDLIFE HABITAT, AND IS AESTHETICALLY PLEASING.

Objective 4.1: *Air Quality*. The City shall promote alternative transportation modes to reduce air pollution**,** improve air quality and reduce greenhouse gas omissions.

Policy 4.1.1: The City shall evaluate land use changes for reductions in vehicle miles traveled.

Policy 4.1.2: The City shall periodically monitor and assess total vehicle miles traveled on the roadway network.

Policy 4.1.3: The City shall continue to work with state and regional transportation agencies to monitor and improve air-quality in the region. The City will abide by applicable provisions of the 1990 Clean Air Act and the State Implementation Plan.

Policy 4.1.4: The City will obtain air quality monitoring reports from appropriate agencies and propose measures to reduce carbon dioxide and carbon monoxide concentrations.

Policy 4.1.5: The City may promote the use of alternative fuels to reduce greenhouse gas omissions by allowing alternative fuel centers in the land development code, and providing incentives for hybrid and non-combustible motor vehicles like preferential parking.

Policy 4.1.6: The City shall continue its program of purchasing hybrid and alternative fueled vehicles as part of the City's fleet, when possible.

Policy 4.1.7: The City will encourage the use of solar-reflective surfaces on transportation facilities.

Policy 4.1.8: The City will consider establishing an environmental ratings system or sustainability certification program for roadway design and construction for new and reconstructed/rehabilitated roadways in the City. Such a program could be similar to the *Greenroads* program developed at the University of Washington. The program may include the following components:

- Low impact development techniques for stormwater
- Life-cycle cost analysis
- Pavement reuse/recycling

- Energy efficiency
- Native landscaping
- Minimizing emissions
- Pavement technologies for permeability, durability, noise reduction, and solar reflectivity

Objective 4.2: *Natural Environment*. The City will strive to preserve and enhance water quality, wildlife habitat, and natural vegetation when designing transportation system improvements and enhancements.

Policy 4.2.1: Where appropriate, utilize stormwater systems that include open swales for conveyance instead of enclosed systems.

Policy 4.2.2: Prior to developing new roadways, a survey of wildlife and natural vegetation along the roadway corridor shall be required.

Policy 4.2.3: The City shall consider wildlife corridors when planning new roadways, such as providing underpasses or overpasses or avoiding critical habitats. In cases where critical habitats cannot be reasonably avoided, appropriate permits will be obtained per the Conservation Element.

Objective 4.3: *Aesthetics*. The City will strive to improve the aesthetic quality of its transportation system by incorporating landscaping and architectural features that enhance the character of the community.

Policy 4.3.1: The City shall continue to maintain existing landscaped medians and will pursue opportunities for grants and assistance to continue roadway beautification along other major roadways as appropriate. Landscaping shall incorporate the Florida Friendly landscaping principals described in the Florida Friendly Yard and Neighborhood Program.

Policy 4.3.2: New facilities shall be landscaped with drought-tolerant native species.

Policy 4.3.3: The City shall design or require roadways and parking areas to include tree plantings that can provide substantial canopies to reduce the urban heat island effect.

Policy 4.3.4: Stormwater features necessary to treat run-off from roadways should be designed in an aesthetically pleasing manner and made to accommodate passive recreation, if possible. Stormwater facilities developed as part of the transportation facility may be used to provide irrigation for landscaping.

Policy 4.3.5: The City will establish community gateways along select entrances and at signature locations. Gateways should include themed or contextual landscaping,

signing, lighting and other aesthetic features to establish a sense of arrival and be consistent with landscaping programs offered by the FDOT.

Policy 4.3.6: The City shall consider designating certain roadways as scenic corridors in coordination with FDOT, Volusia County and adjacent local governments.

Policy 4.3.7: The City may consider establishing corridor plans for select roadways with design and landscape themes, to be developed as part of a neighborhood plan development. These roadway corridors may include more restrictive or controlled access regulations, building placement, design and regulation, unique and context-oriented landscape designs, drainage features, decorative asphalt and concrete for roadways and pedestrian facilities, transit facility design and context-themed public and or private sign regulation.

Objective 4.4: *Noise Attenuation.* Promote land use patterns that are minimally impacted by noise from existing and proposed transportation projects, and work to minimize increases in decibel levels when new roads are constructed.

Policy 4.4.1: The City shall consider the noise effects of I-95 and other arterial roadways when reviewing new residential development projects. The City will coordinate with developers to discourage new residential uses immediately adjacent to I-95.

Policy 4.4.2: The City will work with FDOT regarding the placement of noise attenuation walls or earthen berms adjacent to existing residential areas along I-95 in conjunction with widening the highway to six lanes.

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