



TRAFFIC CIRCULATION ELEMENT

GOAL, OBJECTIVES & POLICIES

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GOAL TCE. TRANSPORTATION CIRCULATION SYSTEM.

It shall be the goal of the City of Casselberry to ensure the planning and provision of a safe, efficient, balanced and economically feasible transportation system which meets the needs of existing and future land use activity, while maintaining environmental, residential, and economic compatibility.

OBJECTIVE TCE 1. PROMOTE SAFE AND LIVABLE MULTI-MODAL TRANSPORTATION. The City, along with other area governmental entities as appropriate, shall implement a comprehensive transportation strategy to promote mass transit, pedestrian, and bicycle use within the City and metropolitan area. This shall include a pedestrian and bicycle circulation system that addresses access to commercial areas and a sidewalk program.

- Policy TCE 1.1** The City shall require transit vehicle operation or transit facility upgrades, where needed during site plan review and in developer's agreements.
- Policy TCE 1.2** The City shall participate in Federal and/or State programs, which encourage the use of mass transit in employment areas.
- Policy TCE 1.3** The City shall, on an ongoing basis, work with Seminole County and the MPO and assist in establishing policies and standards which promote housing in close proximity to employment opportunities and transit services.
- Policy TCE 1.4** The City will continue to require new development to plan and provide for pedestrian circulation systems linking major land uses in accordance with the City's Bicycle Plan.
- Policy TCE 1.5** The City shall coordinate with the School Board, on an ongoing basis, to ensure the provision of safe access to existing and future school facilities through effective design of roadway, bicycle facilities, access, and sidewalks.
- Policy TCE 1.6** The City shall require consideration of pedestrian safety in the planning, design, and construction of all transportation facilities.
- Policy TCE 1.7** The City will coordinate with state, local, and regional governmental entities to provide bikeway facilities for new and reconstructed roadway facilities, with determination of need and costs being of primary consideration.
- Policy TCE 1.8** The City shall require consideration of bicycle safety and adherence to State Standards in the planning, design, and construction of all transportation facilities.
- Policy TCE 1.9** The City shall implement its approved Bike Plan through the acquisition of any needed right-of-way, design, marking, and construction of trails.
- Policy TCE 1.10** Lynx bus stop and transit design shall be constructed with neighborhood character and CRA design standards.

- Policy TCE 1.11** The City shall request assistance from the County in identifying available funding for transit facilities in order to correct any existing problems and to provide for future commuter rail or light rail facilities.
- Policy TCE 1.12** The City shall study and develop incentives for commercial development to provide workplace housing.
- Policy TCE 1.13** The City will work with LYNX to incorporate Transit Emphasis Corridor passenger amenities within the City, The amenities shall include, but are not limited to:
- Sidewalks leading to/from bus stops;
 - Lighted passenger shelters at high volume stop locations;
 - Pull out lanes at selected stops;
 - Real time passenger information at selected stops and at transit centers (i.e. information about the next bus arrival is provided at the stop); and, signal prioritization and bus queue bypass lanes at selected intersections.

Furthermore, the City shall work with LYNX towards a long range vision of implementing higher capacity transit modes within the City, such as bus rapid transit or streetcar service.

Policy TCE 1.14 The City shall continue to establish and enforce policies, standards and regulations for the management of access points and connections to the City and County road system to include, but not be limited to, provisions for the location, design and frequency of access points and connections. Implementation of the State Access Management Program and the control of access connections to the State highway system consistent with Chapter 14-96 and 14-97, F.A.C. and the Florida Department of Transportation Access Management Rule will be coordinated with the Florida Department of Transportation through the City's permitting process.

OBJECTIVE TCE 2. SERVICE STANDARDS. The City shall establish service standards which utilize existing and planned infrastructure, while allowing the ability to implement a balanced transportation system.

Policy TCE 2.1 The City herein adopts the following system for levels of service as measured in the peak hour:

	State Facilities	County Facilities	City Facilities
Major Arterial	D	N/A	N/A
Minor Arterial	E	D	D
Collector	N/A	D	D
Local	N/A	N/A	C

Exceptions to the above standards are as follows; which will have the indicated designations.

State: US 17-92		
Within the Casselberry City Limits		LOS E
Orange County Line to Triplet Lake Drive		Constrained
SR 436		
West City Limits to Oxford Road		Constrained
County: Lake Howell Road		
South City Limits to SR 436		Constrained
Howell Branch Road		
SR 436 to East City Limits		Constrained ¹
Red Bug Lake Road		
SR 436 to Eagle Circle		Constrained ²
Eagle Circle to East City Limits		Constrained ³

¹ Constrained to Six Lanes

² Constrained to Four Lanes Until Remainder of Red Bug Lake Road is Widened to Four Lanes

³ Constrained to Four Lanes

The level of service standards provided for traffic circulation are provided for planning and evaluation purposes to determine whether the policies providing mobility and funding alternatives within the TCEA are achieving the objectives for mobility within the City.

Policy TCE 2.2 The City shall continue to monitor multi-modal LOS on all major corridors according to the City's adopted TCEA policies.

Policy TCE 2.3 As an established TCEA, development within the City shall be exempt from meeting concurrency requirements. Mobility shall be maintained by the implementation of the strategies and programs in this element and through complimentary policies in the comprehensive plan. TCEA mobility strategies for the City will include, but not be limited to:

- Transportation demand management (TDM) program
- Transportation system management (TSM) program
- Revised parking standards/regulations
- Parking facilities including pedestrian and bicycle facilities
- Pedestrian and bicycle facilities enhancements
- Transit facility enhancements
- Complete streets policy implementation
- Transit- and pedestrian-oriented site design standards/regulations

Policy TCE 2.4 The City shall monitor development activity and implementation of mobility strategies to ensure that the exception area is supporting new development and redevelopment. The baseline condition for the performance measures and respective targets will be identified/defined in 2009 and shall be the data available for comparison against the

data collected for the adoption year of the TCEA or the date of subsequent Evaluation and Appraisal Reports (EAR), and mid-EAR reporting timeframes as appropriate. The monitoring will include analysis and/or information for the following:

- a. The amount of development/redevelopment by land use in the City as a function of density, FAR, and percentage of mixed use. Other site planning performance criteria may be used as part of the evaluation such as building placement, parking location and number of spaces, connection to adjacent properties, proximity to transit stops/shelters, connection to adjacent sidewalk network, and provision of pedestrian, bicycle, and transit amenities to monitor the land use mix and the amount of development in the urban infill area instead of furthering urban sprawl.
- b. The implementation of mobility strategies, programs, and policies in support of the TCEA and the City's development and redevelopment objectives, by the following targets:

Mobility Strategy	Performance Measure*	Target*
Transportation Demand Management (TDM)	Performance in ridesharing or vanpooling programs	3% annual increase of participants
	Number of businesses/employers offering flexible work schedules	3% annual increase of participants
	Implementation of transit pass programs and number of participants (businesses and individual)	Implementation by 2015 with 5% annual increase after implementation
	Number of bus turn out facilities (at locations desired by LYNX)	1 per 3 years as coordinated with LYNX
	Number of improved and/or new bus shelters in LYNX routes within the TCEA	1 improved and/or new shelter each year
Transportation System Management (TSM)	Number of intersection and/or signal improvements	1 per project generating greater than 5,000 net new daily trips
	Reevaluate the signal synchronization to maintain optimized flow	By 2013

	Number of joint driveways and/or cross-accesses or combined driveways	1 per redevelopment/development project
Pedestrian (Sidewalk) Enhancements	Amount of sidewalks added and/or expanded to the network in the TCEA	500 linear feet of sidewalk per year
	Linear feet of streetscaping/landscaping which enhances the crosswalks in TCEA	500 feet per year
	Number of pedestrian enhanced crosswalks in TCEA	1 per project generating greater than 5,000 net new daily trips
Bicycle Facilities Enhancements	Number of bicycle stalls/lockers and related amenities for projects within the TCEA	1 bicycle stall/locker for every 50 vehicle parking spaces provided within the TCEA for redevelopment and new development
	Linear feet of bicycle lanes and related facilities in TCEA	Bicycle lanes and related facilities including bicycle provisions at intersections as part of programmed street resurfacing and/or rehabilitation (where feasible)

* Performance measures and targets may be subject to further consideration (i.e., if these performance measures and targets cannot be supported by reasonably available data or additional measures are identified that may also be appropriate).

The effects of the TCEA strategies, programs, and policies in accomplishing the objective of improved mobility for the multi-modal transportation system within the TCEA shall be monitored by the following performance measures strategies:

Performance Measure*	Target*
Change in ridership, including boardings/alightings for LYNX routes within the City	1% annual increase
Change in headways for LYNX routes	10-minute headway decrease every 5 years
Commuter Rail ridership (change in ridership will be reported in subsequent years after the implementation of the service)	3% annual increase each year after implementation
Proposed trip generation from redevelopment/new developments (based on CMS Applications and TIAs) versus actual traffic counts on adjacent roadways	Achieve 5% reduction in actual traffic counts versus trip generation projections
Change in daily and peak hour traffic volumes on US 17-92 and SR 436	Achieve less than 1% annual increase

* Performance measures and the associated targets will be coordinated with the respective agencies such as LYNX and FDOT. The facilities and infrastructure for several of the targets, such as bus shelters, are contingent upon development/redevelopment activity and associated developer contributions.

*Performance measures and targets may be subject to further consideration (i.e., if these performance measures and targets cannot be supported by reasonably available data or additional measures are identified that may also be appropriate).

The City will evaluate the strategies to determine whether modifications to the strategies are necessary. This evaluation will be conducted every seven years or at the next Evaluation and Appraisal Report (EAR). The results will be included in the Evaluation and Appraisal Report along with any recommendations to refine the TCEA policies and mobility strategies through EAR based amendments.

Policy TCE 2.5 **Implementation of TCEA Strategies.** The City's mobility strategies and performance measures in Policy TCE 2.4 will be supported by the development and redevelopment projects within the City. The expected contribution by a development or redevelopment project toward the implementation of the referenced TCEA strategies and performance measures will be based upon the implementation levels below. The number and type of strategies required by a development/redevelopment project is based on the referenced project's trip generation potential and its impact on the roadway network.

Implementation Level	Average Daily Trip Generation	Number of Required Strategies by Category
Level 1	Less than 50	Pedestrian Strategies: 1 Bicycle Strategies: 2
Level 2	50 to 400	Pedestrian Strategies: 3 Bicycle Strategies: 2 Transit Strategies: 1
Level 3	400 to 1,999	Pedestrian Strategies: 3 Bicycle Strategies: 2 Transit Strategies: 1 TDM Strategies: 2
Level 4	Greater than 2,000 but less than 5,000	Pedestrian Strategies: 3 Bicycle Strategies: 3 Transit Strategies: 2 TDM Strategies: 2
Level 5	Greater than 5,000 - but less than 9,999	Pedestrian Strategies: 3 Bicycle Strategies: 3 Transit Strategies: 2 TDM Strategies: 2 TSM Strategies: 1
Level 6	Greater than 10,000 or 50 or more Employees	Pedestrian Strategies: All applicable Bicycle Strategies: 3 Transit Strategies: All applicable TDM Strategies: All applicable TSM Strategies: 1

The developer may sign a development agreement or contract with the City of Casselberry for the provision of the required strategies. The choice of strategies shall be subject to final approval by the City during the site plan approval process. The strategies chosen shall relate to the particular site and transportation conditions where the development is located. The developer may choose to provide one or more strategies off-site with the City's approval. In recognition of the varying costs associated with the strategies, the City shall have the discretion to count the sufficiency of strategies, based on cost estimates provided by the developer and verified by the City.

The following strategies may be used to satisfy the required strategies above. The potential strategies for the five categories (1) pedestrian, (2) bicycle, (3) transit, (4) TDM, and (5) TSM, include but are not limited to:

Mobility Category	TCEA Strategy Options
(1) Pedestrian	<ul style="list-style-type: none"> ▪ New sidewalks ▪ Removal/relocation of sidewalk obstacles ▪ Repairs/replacement of existing sidewalks ▪ ADA improvements ▪ Pedestrian lighting

	<ul style="list-style-type: none"> ▪ Intersection upgrades (pedestrian crossings) ▪ Increased network access
(2) Bicycle	<ul style="list-style-type: none"> ▪ Addition of bike lanes ▪ Bicycle parking, lockers ▪ Bicycle showers in new development/redevelopment ▪ Intersection improvements (bicycles)
(3) Transit	<ul style="list-style-type: none"> ▪ Bus shelters ▪ Bus shelter upgrades ▪ Bus bay provisions ▪ Service enhancements/contributions ▪ Contribution to trolley system
(4) TDM	<ul style="list-style-type: none"> ▪ TDM program implementation ▪ Shared parking provision ▪ Driveway consolidation/cross access easements
(5) TSM	<ul style="list-style-type: none"> ▪ Intersection improvements ▪ Turn lane provision ▪ Access management ▪ Streetscaping

OBJECTIVE TCE 3. LAND DEVELOPMENT CODE/SITE STANDARDS. The City shall coordinate the transportation system with the future land use map and ensure that existing and proposed population densities, housing and employment patterns, and land uses are consistent with proposed transportation facilities, modes and services. This shall be accomplished by utilizing its site development plan review process and the Unified Land Development Regulations to assess potential transportation impacts of new development, to determine necessary transportation system improvements, and to implement effective and efficient site design measures.

Policy TCE 3.1 Although development within the City is exempt from traffic concurrency, new development and redevelopment shall submit a traffic impact analysis (TIA) study except when the Public Works Director and the Community Development Director find it is unnecessary due to sufficient roadway capacity. The TIA shall evaluate all roadways identified by the City to address traffic, transit, bicycle, and pedestrian impacts. The evaluation shall follow professional standards and requirements found in the City's Unified Land Development Regulations. The City may also require necessary operational improvements such as improved geometrics, curb cut reductions, adequate turn lanes, transit pullover bays, striping, and signage to maximize existing system capacity. The cost of preparation of the TIA will be borne by the developer.

Exemption from concurrency does not exempt any development from conducting a TIA necessary to evaluate traffic safety and operational standards or from installing road and access improvements necessary to promote public safety. However, mitigation may also be in the form of the transit mobility strategies.

Policy TCE 3.2 The City shall utilize the Unified Land Development Regulations to coordinate the location and design of new roadway network facilities, transit corridors, and pedestrian

facilities. Special attention will be given to protect the safety of pedestrians by site designs that reduce hazardous and/or conflicting site conditions.

- Policy TCE 3.3** The City shall continue to require land use density and site plan layout/phasing which supports reduced travel demand, shortened trip lengths, higher internal capture, and balanced trip demand.
- Policy TCE 3.4** The City shall utilize the latest versions of the Manual of Uniform Standards for Design Construction and Maintenance for Streets and Highways, the Manual of Uniform Traffic Control Devices, and FDOT's Standard Specifications for Road and Bridge Construction, latest edition, as its adopted standards for transportation facility planning.
- Policy TCE 3.5** The City shall evaluate the effectiveness of the TCEA strategies every seven years as part of the Evaluation and Appraisal Report and report the impacts of the following:
- Amount/type of development activity;
 - Amount/type of improvements to transit infrastructure;
 - Change in transit ridership as a function of the amount and type of development/redevelopment activity; and
 - Adoption and implementation of programs which promote pedestrian and non-automobile travel including improvements to pedestrian and bicycle facilities.
- Policy TCE 3.6** The City shall continue to utilize land use, zoning, subdivision regulations, and other applicable regulations to coordinate the location and design of new roadway network facilities and transit corridors, as well as bikeway and pedestrian facilities.
- Policy TCE 3.7** In order to more efficiently utilize existing transportation facilities and capacity, the City shall, along with other governmental agencies, implement appropriate Transportation System Management (TSM) activities which reduce travel time, and/or maximize capacity, through the Unified Land Development Regulations.
- Policy TCE 3.8** **Complete Streets.** Implement a "complete streets" policy, as established by the Federal Highway Administration, to accommodate all modes of transportation in plans for roadway modifications within the City. The intent of this policy is to develop a comprehensive, integrated, multimodal street network by coordinating transportation planning strategies and private development activities as follows:
- Provide safe and convenient on-site pedestrian circulation such as sidewalks and crosswalks connecting buildings, parking areas, and existing or planned public sidewalks.
 - Provide cross-access connections/easements or joint driveways where available and cost effective.
 - Deed land or convey required easements, as requested by the City, for the construction of public sidewalks, bus turn-out facilities, and/or bus shelters with appropriate credits toward developer contribution requirements.
 - Where appropriate, developers shall provide for the following improvements with credits toward contribution requirements:

- Project turn lanes
- Bus Shelters
- Adjacent sidewalks
- Streetscaping/landscaping within the public right-of-way
- Additional bicycle parking

OBJECTIVE TCE 4. NEIGHBORHOOD PROTECTION. The City shall preserve the residential character of neighborhoods by sensitive transportation planning and design, as well as prioritizing improvements in a manner which protects existing and future neighborhoods.

Policy TCE 4.1 During site plan review for either residential or non-residential development, the City shall require neighborhood traffic considerations to limit or prohibit cut-through traffic in neighborhoods. This will be primarily accomplished through site design that discourages non-residential traffic through neighborhoods including between adjacent neighborhoods. Developers shall be required to evaluate the traffic impacts of their development, including development within the TCEA, on adjacent neighborhoods. The City can mandate to developers conditions for approval that will mitigate potential transportation impacts from their development on adjacent neighborhoods.

Policy TCE 4.2 In order to divert non-residential traffic from local residential streets, it shall be the policy of the City to give priority to improvements which alleviate neighborhood traffic problems by increasing the flow on the major roadway network.

Policy TCE 4.3 The City will construct new roadways or road widenings as identified in the Traffic Circulation and Capital Improvement Elements as City facilities to augment the existing major roadway system and protect residential neighborhoods. Whenever possible, the City shall re-route construction related traffic away from residential areas.

Policy TCE 4.4 The City may implement neighborhood traffic control or traffic calming devices in selected areas of existing, through-traffic problems as deemed warranted by the City Commission following full public input. Techniques to be evaluated and implemented, where feasible, will include those enumerated within the Neighborhood Traffic Management section of the Traffic Circulation Element.

Policy TCE 4.5 The City will implement and encourage, on an ongoing basis, along with appropriate governmental entities, road buffer and design measures on road widening projects through residential areas.

OBJECTIVE TCE 5. TRANSPORTATION REVENUE. The City shall seek to obtain funds from available sources to finance needed improvements and will coordinate with private, local, regional, and state agencies to determine a proper funding mix for transportation improvements.

Policy TCE 5.1 The City will participate in and seek funds from the MPO or any similar agency in order to include City related improvements in the Metropolitan Orlando Urban Area

Transportation Plan and to finance improvements to enhance and improve mobility in the Orlando region and Casselberry, specifically.

- Policy TCE 5.2** The City will continue to jointly fund transportation projects, if appropriate, with appropriate governmental agencies.
- Policy TCE 5.3** The City shall support changes to state legislation which enable local and regional governments to increase the revenue base for transportation improvements.
- Policy TCE 5.4** The City shall oppose any transfer of transportation facilities to the City's jurisdiction from another governmental entity unless the facility is improved by the transferring governmental entity to the City's design and condition, as well as accompanied with a level of funding to maintain the facility.
- Policy TCE 5.5** The City shall continue to fund construction, operation, and maintenance costs through all available sources of transportation revenue.
- Policy TCE 5.6** The City shall support private initiatives for implementation of transportation improvements, which are consistent with the City's Comprehensive Plan.
- Policy TCE 5.7** The City shall place a high priority on user-based financing strategies.
- Policy TCE 5.8.** The City shall continue to apply traffic impact fees to new development and re-development, as determined by the most recent adopted study, to finance road improvements and to provide transit opportunities throughout the City.

OBJECTIVE TCE 6. INTERGOVERNMENTAL COORDINATION. The City will coordinate transportation planning, funding, design, and implementation efforts with all relevant levels and agencies of government as implemented by the following policies.

- Policy TCE 6.1** The City shall, on an ongoing basis, assist in the coordination, location, classification, planning and construction of needed roads with FDOT, MPO, ECFRPC, Seminole County, appropriate municipalities, and other relevant agencies, and implement recommendations contained in the respective traffic circulation elements and the Orlando Urban Area Transportation Study pursuant to Chapter 380, Florida Statutes.
- Policy TCE 6.2** The City shall continue to coordinate with the local mass transit provider to ensure that adequate regional transit service is provided to the citizens.
- Policy TCE 6.3** The City shall update annually, in cooperation with other local and state agencies, its information on traffic, socio-economic characteristics, accidents, road characteristics, and transit ridership.
- Policy TCE 6.4** The City shall coordinate, on an ongoing basis, with Seminole County, FDOT, and the ECFRPC on key transportation decisions affecting the roadways within the City's jurisdiction.
- Policy TCE 6.5** The City shall manage access to State Roads through close coordination with Florida Department of Transportation and shall require that all access to State Roads be consistent with F.A.C. Rules, Chapter 14.
- Policy TCE 6.6** The City will cooperate, on an ongoing basis, with other governmental agencies on

Transportation Systems Management (TSM) measures such as coordinated traffic signals and auxiliary turn lanes that optimize traffic flow and improve operational levels of service.

OBJECTIVE TCE 7. PUBLIC INVOLVEMENT. The City shall maintain a public involvement program in the City's transportation planning process.

Policy TCE 7.1 The City will seek business and citizen participation in the transportation planning process, neighborhood traffic management, facility widenings, and provision of mass transit service through the use of neighborhood meetings, flyers and other methods.

Policy TCE 7.2 Upon adoption of the public involvement plan, the City shall require public notice of public meetings on the planning and design of transportation improvements.

OBJECTIVE TCE 8. ENVIRONMENTAL PROTECTION. The City shall establish policies, standards, and regulations in order to coordinate future transportation systems with the desire to enhance natural resources, maintain the quality of the environment, and improve the quality of the urban area.

Policy TCE 8.1 The City shall maintain and enhance the quality of the natural environment by improving the quality of water by requiring site plan design measures in the Unified Land Development Regulations to decrease water pollution due to the transportation system.

Policy TCE 8.2 Upon adoption of the plan, the City shall prohibit the use of new or improved roadway facilities as the sole justification for amendments to the future land use element where such development will adversely impact neighborhoods or the environment.

Policy TCE 8.3 With regard to transportation facilities, the City shall continue to enforce policies, standards, and regulations which provide for the protection of wetland areas by requiring documented evidence of an overriding public need, and appropriate mitigation of unavoidable wetland disturbance.

OBJECTIVE TCE 9. RIGHT-OF-WAY PROTECTION. The City of Casselberry shall ensure and maintain the necessary rights-of-way on all public roads in order to provide cost-effective improvement options.

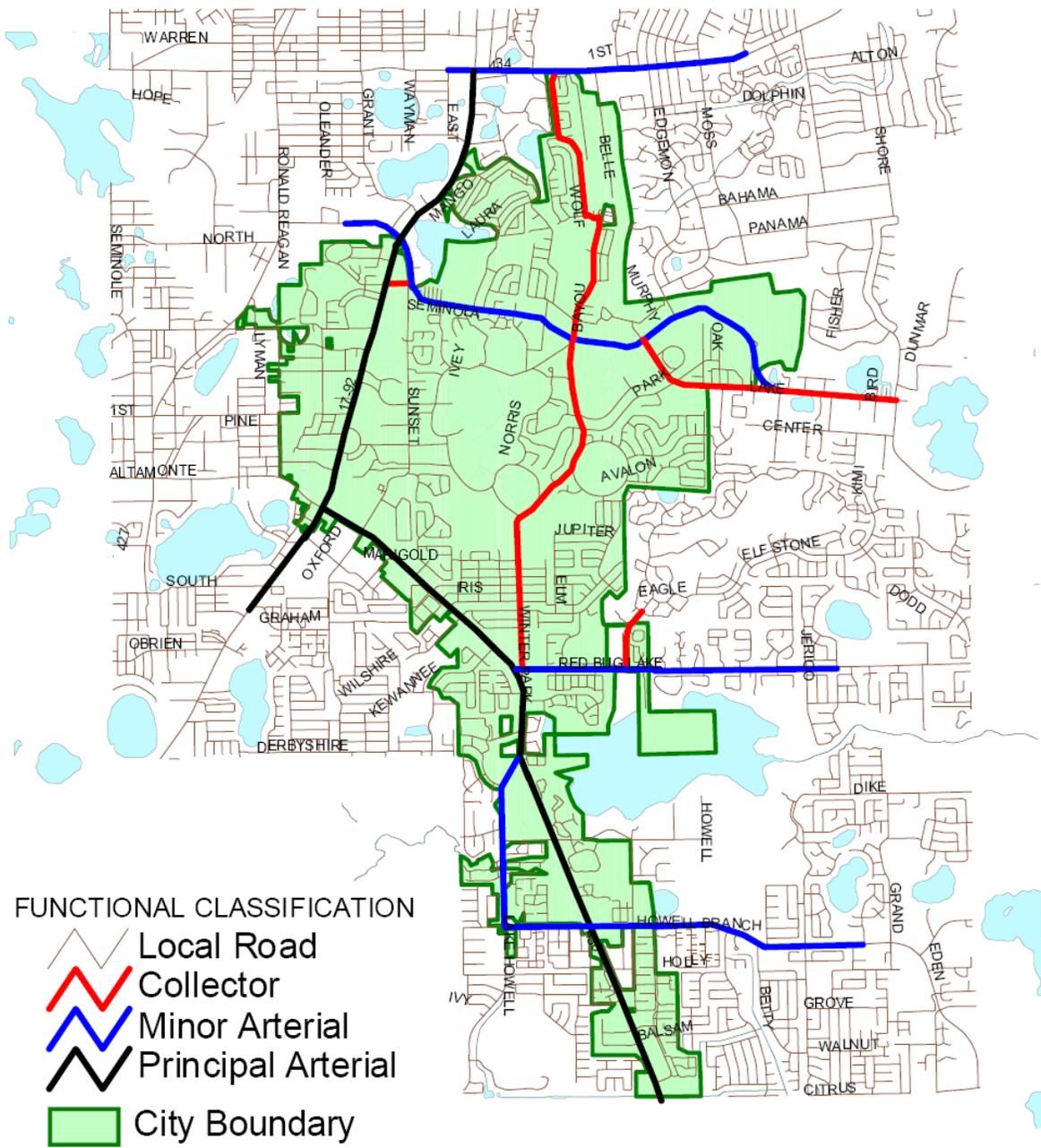
Policy TCE 9.1 The City shall establish conditions of development approval to protect the needed Right-of-Way for future road improvements as identified on the Future Traffic Circulation Map. Such conditions shall include building setbacks and donation/declaration of Right-of-Way by the developer.

Policy TCE 9.2 The City shall utilize the right-of-way widths as required by the ULDR's.

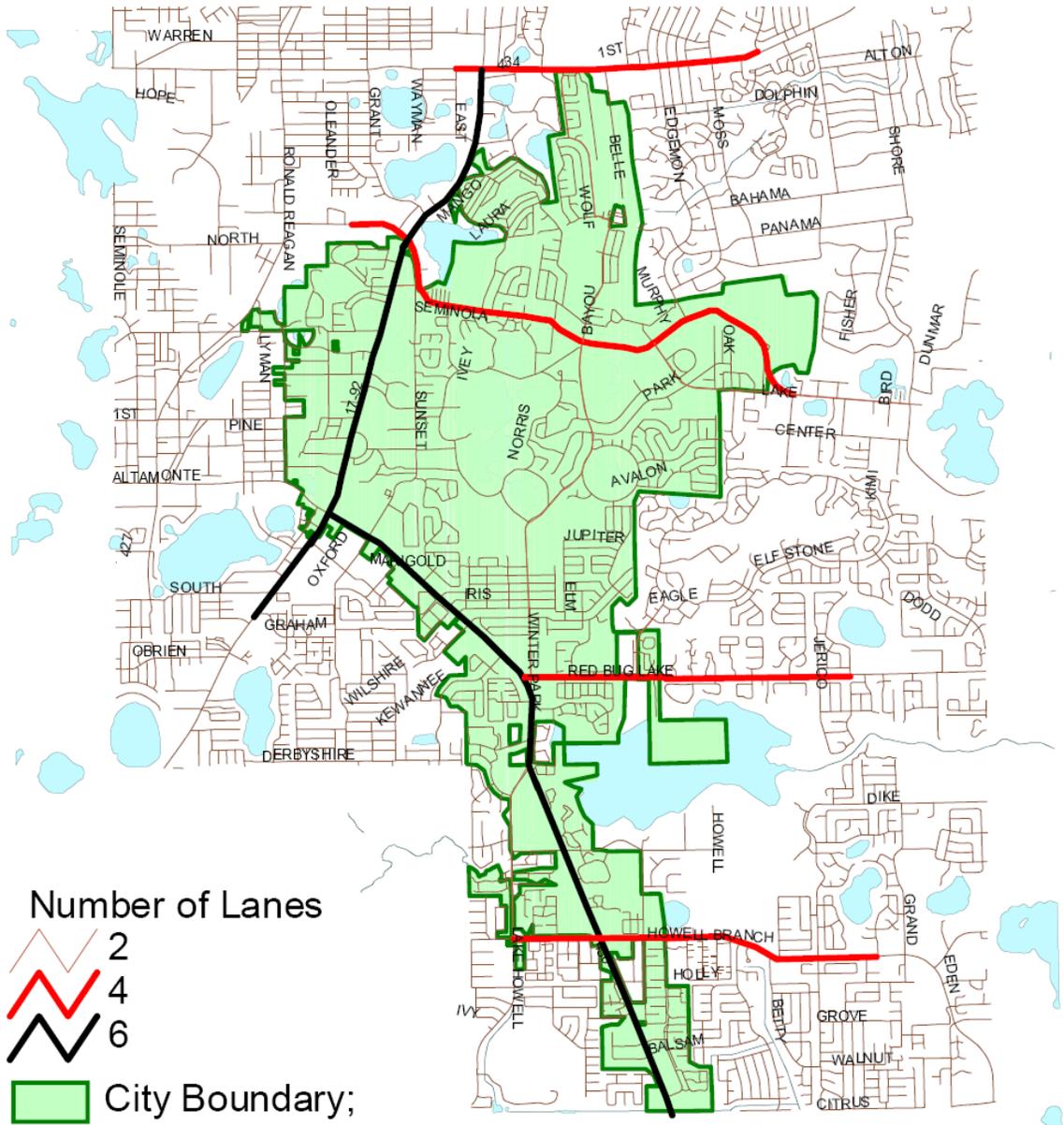
Policy TCE 9.3 The City shall explore programs and incentives which will encourage new developments to donate additional right-of-way to be used for mass transit services.

Transportation Map Series

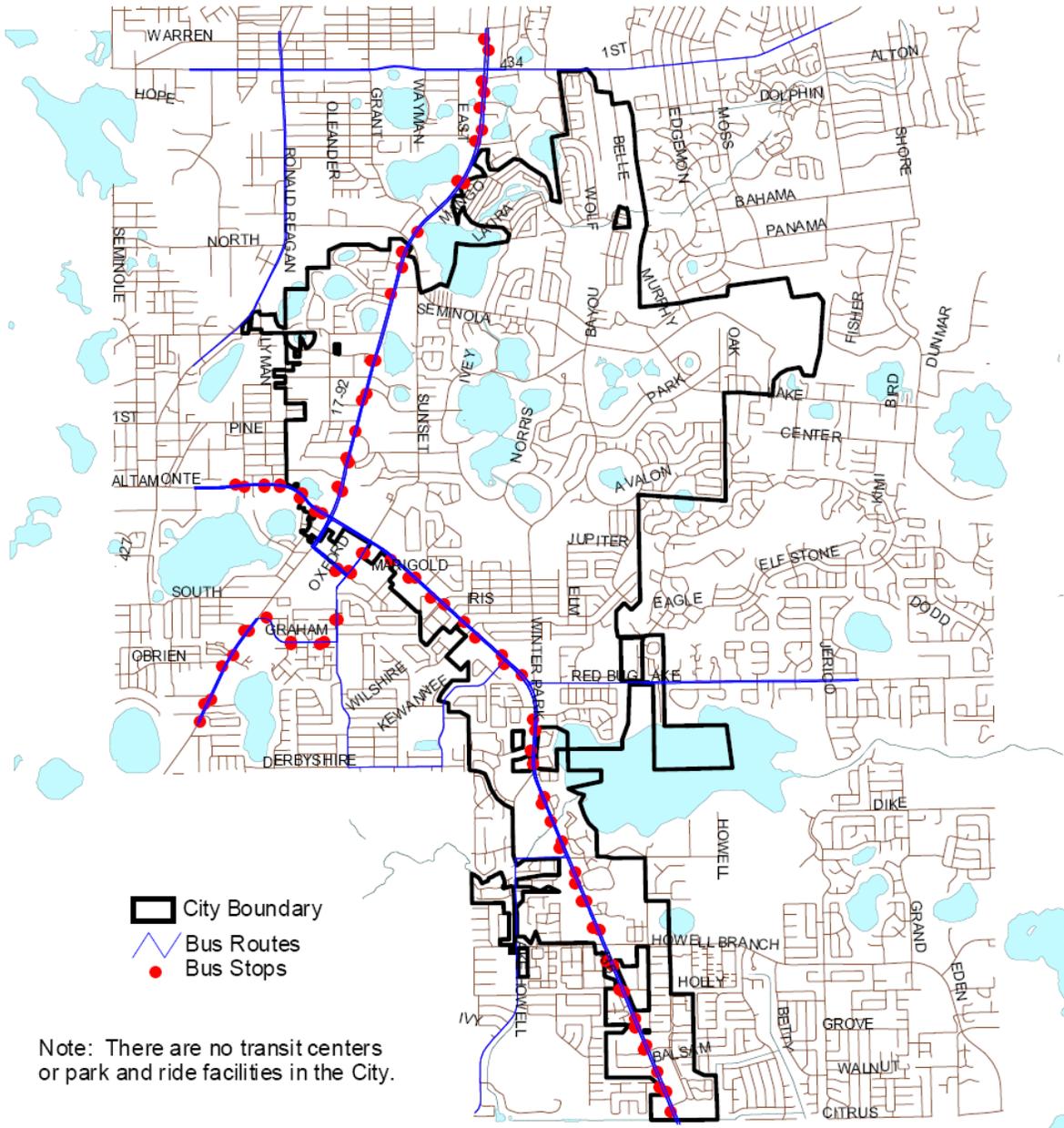
ROADWAY FUNCTIONAL CLASSIFICATION, 2019 CITY OF CASSELBERRY



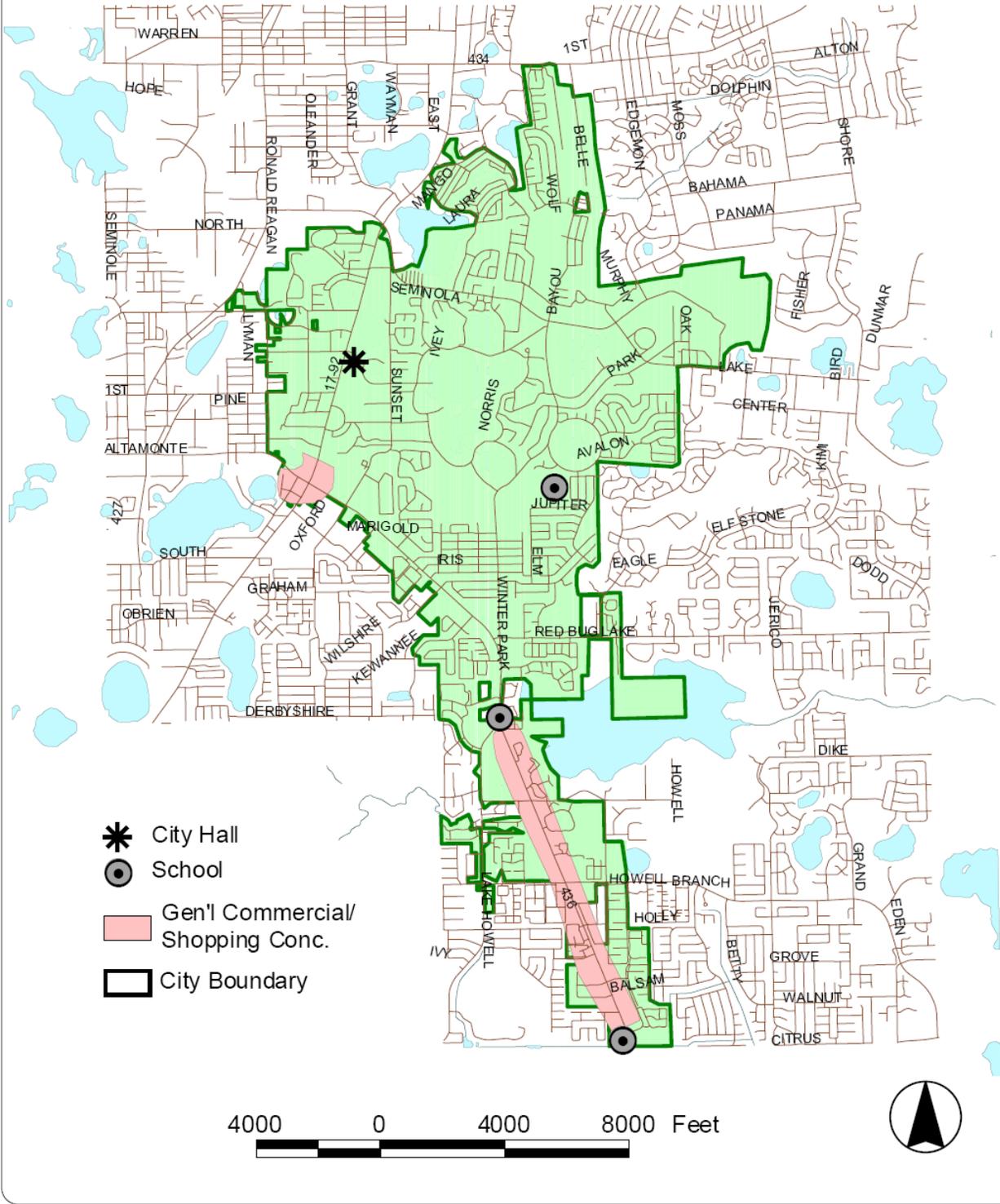
NUMBER OF LANES, 2019 CITY OF CASSELBERRY



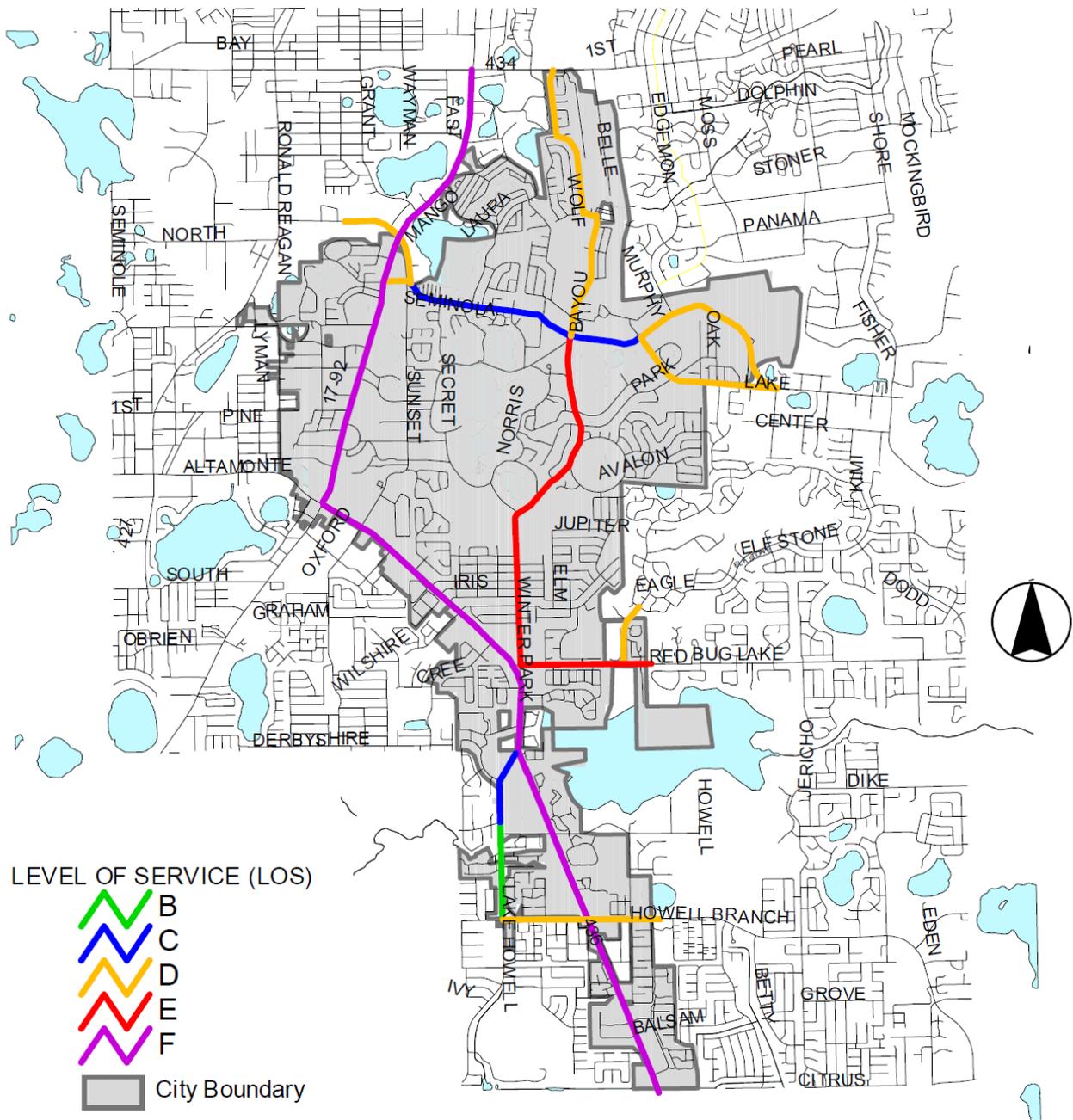
BUS ROUTES AND STOPS CASSELBERRY AREA



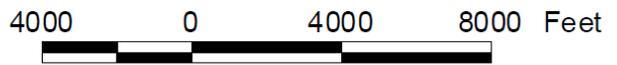
LOCATIONS OF TRANSIT GENERATORS AND ATTRACTORS, 2019 CITY OF CASSELBERRY



ROADWAY LOS, 2019 CITY OF CASSELBERRY



Source: LOS for US 17-92, SR 434, and SR 436 are from FDOT District 5 LOS Tables, 2008. (See LOS Table in the supporting Data and Analysis.)



LOS for Seminola, Red Bug Lake, Howell Branch, and Winter Park are from Seminole County's Vision 2020 Comprehensive Plan. LOS for all other roads are based on local assessment.

