

# Traffic and Transportation Plan

City of Winter Park, Florida



2/7/2011  
Public Works  
Department

# Traffic and Transportation Plan

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## **Introduction to Traffic and Transportation Plan (TTP)**

The City of Winter Park's Public Works Department developed the Traffic and Transportation Plan to support and implement the Transportation Element of the City's Comprehensive Plan. The TTP contains a collection of projects, plans, programs, and policies that will promote and enhance a balanced multi-modal transportation system.

### **Comprehensive Plan**

In order to establish the setting for this Traffic and Transportation Plan, the following paragraphs are excerpts from the City Comprehensive Plan Transportation Element.

*The City of Winter Park's high economic value and quality of life have been enhanced by its well-balanced transportation system. From its original design in the 1850's, Winter Park has set a planning framework that integrates a sustainable village pattern with a balanced transportation system.*

*The original Winter Park town plan incorporated traditional design features, such as an interconnected street network, a mixture of different land uses, and an urban design that reinforces the street as the dominant public realm. The resulting street layout and building orientation support the development of a balanced transportation system.*

*To maintain its high quality of life, Winter Park must continue its focus on a balanced transportation system that enhances the City's character and meets resident travel needs. The transportation system must further the mission, which is:*

***Winter Park is and will continue to be a walkable, pedestrian-friendly, sustainable, treed, relaxed, beautiful, safe, urban village that promotes neighborliness and courtesy among its citizens and visitors.***

*The Transportation Element of the Winter Park Comprehensive Plan outlines the policy direction of the City of Winter Park regarding the mobility and accessibility needs of its citizens. State law requires the regular updating of the City's Comprehensive Plan, and the minimum requirements for the Transportation Element are contained in Chapter 9J-5.019 of the Florida Administrative Code.*

*The Comprehensive Plan is a policy document that evaluates the City as a whole, looks at long-term issues and opportunities, and sets out a strategy to manage those issues and take best advantage of those opportunities. The transportation*

*element accomplishes these tasks as they relate to the City's transportation needs and infrastructure.*

*As a policy guidance document, this Transportation Element will influence the transportation-related actions of the City for years to come. The City maintains its well-balanced transportation system through three actions: investment, regulation, and coordination. Through its investments in infrastructure, the City will build and maintain an adequate network. Through its zoning and land development regulations, the City may partner with private development. Through its coordination and cooperative work with local, regional, state, and federal agencies, the City will create a transportation network that further enhances the quality of life of its citizens, and contributes to the regional mobility strategy. This element ties together these disparate actions so that they support a common mission.*

*Comprehensive planning looks at the big picture, rather than the incremental actions of daily municipal decisions. When the City sets overall policy and direction, individual and incremental decisions can all support a unified vision, in the process creating synergy and saving resources. This Transportation Element coordinates all travel modes within the City, creating seamless transition between private automobiles, passenger rail service, transit buses, bicycles, and walking.*

## **Report Organization**

The first part of this balanced plan, Section I, discusses transit in the City of Winter Park, the existing Lynx bus system and future plans along with the proposed Sunrail commuter rail system.

The second part of the plan, Section II, includes proposed projects which improve mobility or traffic movement primarily along collectors and arterials. A map of the City depicting the location of these improvement projects and a list describing each project follows and has been generated using many sources, including previous plans, city staff information, and input from residents/motorists/other users.

The third part of this plan, Section III, includes a discussion of bike/pedestrian facilities and lists of improvements to promote the multimodal vision of the transportation plan.

The fourth part of this plan, Section IV, includes ways to address quality of life concerns on local roads through the use of traffic calming. A policy is presented which defines what traffic calming is, when it is appropriate, and the necessary level of support to get it implemented.

Lastly, Section V of the plan includes a brief overview of the City Wayfinding Plan and its benefits to the City.

### **Summary**

This Traffic and Transportation Plan (TTP) plan provides the list of plans, projects, programs, and policies to implement and construct for improved multi-modal transportation within the City.

This plan is meant to be fluid, updated periodically to reflect accomplishments and address future conditions in the ever changing regional traffic landscape.

The traffic element of the Comprehensive Plan already discusses regional traffic issues, transit and rail, along with documenting the existing traffic network conditions. Therefore, this report is not meant to address these issues but rather focuses on specific transportation improvements under the City's direct control.

# ***Section I***

# ***Transit System***

## *Section I Transit System*

Existing public transit services are operated by the Central Florida Regional Transportation Authority and referred to locally as LYNX. LYNX provides local and express bus public transit services throughout the Orlando metropolitan area, serving Orange, Osceola and Seminole counties. LYNX, an agency of the state of Florida, was created in 1989 by the Florida Legislature to plan, design and construct, maintain, and operate public regional bus service in the tri-county area. LYNX provides fixed-route bus service, transit facilities and amenities, ride sharing for carpools and vanpools, and paratransit services generally referred to as ACCESS LYNX.

The purpose of this section is to outline the existing transit service in the area, the planned and programmed regional transit services proposed for Winter Park.

### **Existing LYNX System**

The existing LYNX transit system consists of 65 bus routes or “Links” that provide service between residential areas, shopping centers, hospitals, and major employment centers. Service on these links is operated using a total fleet size of 285 buses with ridership in excess of 86,000 daily trips.

All 65 routes provide service on weekdays, 62 routes operate on Saturdays, and 46 operate on Sundays and holidays. Some routes begin service earlier and/or operate later than others. On weekdays, service is provided between the hours of 4:30 a.m. and 3:00 a.m. Most routes provide service every 15 to 60 minutes on weekdays, less frequently on evenings and weekends. On Saturdays, LYNX buses run between 4:30 a.m. and 2:00 a.m., with approximately 83 percent of the routes operating past 8:00 p.m. On Sundays and holidays, service is provided between 5:00 a.m. and 1:30 a.m., with approximately 77 percent of the routes operating past 8:00 p.m. Some routes operate every 30 minutes whereas others run hourly. On weekdays, approximately 50 percent operate at 30 minutes or better frequency. On Saturdays, approximately 32 percent operate at 30 minutes or better frequency. On Sundays and holidays, only about 10 percent operate at 30 minutes or better frequency.

The span of service for local and express bus routes varies depending on demand requirements and service characteristics. For example, express routes that serve downtown Orlando generally operate on weekdays during the a.m. and p.m. peak periods only. Local bus routes may or may not have early evening or late evening service, depending on demand and the need for connections to other routes.

LYNX provides the majority of its service in Orange County, with the exception of two routes. Of those 65 routes, 56 operate exclusively within Orange County, three share service with Osceola County, and six also operate in Seminole County. One additional route, jointly funded by Volusia County and FDOT and operated by LYNX, provides express commuter service between west Volusia County and downtown Orlando. Another express route runs between Clermont in Lake County to downtown Orlando. Osceola County is served by a total of eight routes, five of which operates exclusively within the County. In Seminole County, nine routes provide service, including three that operate only in Seminole County. There are no routes that serve all three counties. In addition, customers traveling between Seminole County and west Volusia County must transfer between routes.

The LYNX Central Station (LCS) is located in downtown Orlando within the block bounded by Livingston Street, Garland Avenue, Amelia Street, and the CSX Railroad. LYNX Central Station is the core transfer station with many (approximately 60 to 70%) of the LYNX buses traveling to and from this primary location.

LYNX presently has a flat fare, “pay as you board” systems on their fixed routes buses. Passenger fares for local and express services are shown in Table 1-1.

Table 1-1: Current Passenger Fares (FY 2010/11)

Service	Fare
LYNX Local Bus Adult Cash Fare	\$2.00
LYNX Express Bus Adult Cash Fare	\$3.50
LYNX Child and Senior Fare	\$1.00
LYMMO	Free
LYNX Transfers (Local to Local)	Free

Each system also presently provides discounts for multiple day passes (e.g., weekly or monthly) and for children and senior citizens.

In 1992, LYNX was designated the Community Transportation Coordinator (CTC) for Osceola, Orange, and Seminole Counties. As CTC, LYNX coordinates the provision of publicly funded transportation for all persons in the tri-county area who cannot provide for their own transportation due to age, income, or disability as defined by federal and state programs.

In addition to its fixed-route and ACCESS paratransit services, LYNX is the Orlando metropolitan area's mobility manager. LYNX operates and/or manages a wide range of transportation services, including the I-4 Road Rangers Program that provides assistance to stranded motorists on I-4 (in partnership with FDOT) and the Commuter Assistance Program that encourages carpooling and vanpooling, with 70 active vanpools.

Since 1993 LYNX has expanded its ACCESS and fixed-route service by 189 percent and 117 percent, respectively. In addition, since 1993 LYNX's ACCESS ridership has increased by approximately 146 percent and its fixed-route ridership has increased by approximately 91 percent. There are 174 demand responsive vehicles that operate under a purchased transportation service contract.

### **Relevant LYNX Services and Routes**

For the purpose of this analysis, relevant LYNX service and routes refer to both direct service to the Winter Park service area, as well as to LYNX transit superstops and transit centers adjacent to the city. According to LYNX planning documents, transit superstops and transit centers provide for transfer between multiple routes (LINKS) and serve as access points to transit for neighborhoods and community centers. They are located near activity centers, schools, shopping centers and residential complexes with a focus on community and commercial conveniences. In addition, although not official LYNX facilities, a number of important transfer sites exist throughout the region. Some of these sites may be candidates for a customer facility as LYNX expands service.

At present, there are eight (8) fixed route services in Winter Park. The route description and characteristics for these routes are provided below. Winter Park is also served by several transfer locations, including Winter Park Village, Winter Park Amtrak Station, and Winter Park Hospital. These locations and the routes that service these locations are briefly described in the following paragraphs. Figure 1 presents the existing LYNX system in the area.

### **Winter Park Service**

Existing public transit service to Winter Park has been limited primarily to local LYNX bus routes, including Routes 1, 9, 13, 14, 23, 102, 313, and 443. The majority of these routes focus on the west side of the City, and on the major roadway facilities such as Orange Avenue, US 17-92, Lee Road, Aloma Avenue and Fairbanks Avenue. However, several local collectors are served, such as Minnesota Avenue, Denning Drive, Morse Boulevard, Canton Avenue, Webster Avenue, New York Avenue, Ranger Boulevard, Scarlett Road, Glenridge Way, and Lakemont Avenue. LYNX has an existing transfer

location at Winter Park Village near the corner of Webster Avenue and Denning Drive. LINKS 1, 9, 14, 23, 102 and 443 transfer at this location. Other minor locations include Florida Hospital Winter Park and New York Avenue.

The following paragraphs outline the service characteristics of the routes that serve Winter Park.

- **LINK 1 (Altamonte Springs/Winter Park).** Link #1 provides service between the Altamonte Mall and the Winter Park Village. The service area includes Altamonte Springs, Maitland, Eatonville and Winter Park, with the route traversing SR 436, Wymore Road, Kennedy/Lake Boulevard, and US 17-92. This route operates from 5:10 am to 9:05 pm Monday through Saturday, with 60-minute headways. There is no Sunday and holidays service. Route 1 ranks 49 out of the 59 fixed route services LYNX provides in route performance, with 1.12 passengers per revenue mile, 14.77 passengers per revenue hour, and 8.15 passengers per trip. The route has a farebox recovery of approximately 18.10%, with a \$3.79 subsidy per passenger.
- **LINK 9 (Winter Park/Rosemont).** Link #9 provides service between the Pine Hills and the Winter Park Village. The service area includes Pine Hills, Eatonville and Winter Park, with the route traversing Pine Hills Road, Clarcona-Ocoee Road, US 441, Kennedy/Lake Boulevard, and US 17-92. This route operates from 5:40 am to 12:29 am Monday through Saturday, with 60-minute headways. Sunday and holidays service ends at 8:00 pm. Route 9 ranks 26 out of the 59 fixed route services LYNX provides in route performance, with 1.56 passengers per revenue mile, 22.27 passengers per revenue hour, and 16.10 passengers per trip. The route has a farebox recovery of approximately 26.95%, with a \$2.20 subsidy per passenger.
- **LINK 13 (University of Central Florida).** Link #13 provides service between the LYNX Central Station in downtown Orlando and the University of Central Florida. The service area includes Orlando, Winter Park and unincorporated Orange County, with the route traversing Glenridge Way, Lakemont Avenue and Aloma Avenue in Winter Park. The Route serves the VA Clinic and Florida Hospital Winter Park. This route operates from 4:30 am to 12:05 am Monday through Saturday, with 60-minute headways. Sunday and holiday's service begins at 5:45 am and ends at 9:35 pm.. Route 13 ranks 42 out of the 59 fixed route services LYNX provides in route performance, with 1.21 passengers per revenue mile, 16.73 passengers per

revenue hour, and 22.57 passengers per trip. The route has a farebox recovery of approximately 24.19%, with a \$2.74 subsidy per passenger.

- **LINK 14 (Calvary Towers).** Link #14 provides service between the Calvary Towers at Clay Street and Minnesota and Winter Park Village. The service area is Winter Park, with the route traversing Minnesota Avenue, US 17-92, Morse Boulevard and Denning Drive. The Route serves the Towers as well as Valencia Community College. This route operates from 6:35 am to 8:25 pm Monday through Sunday and Holidays, with 60-minute headways. Sunday and holiday's service ends at 6:35 pm.. Route 14 ranks 41 out of the 59 fixed route services LYNX provides in route performance, with 1.48 passengers per revenue mile, 14.49 passengers per revenue hour, and 5.94 passengers per trip. The route has a farebox recovery of approximately 18.31%, with a \$3.60 subsidy per passenger.
  
- **LINK 23 (Winter Park/Springs Village).** Link #23 provides service between the Springs Village near SR 434 and Montgomery Road in Seminole County and the Winter Park Village. The service area includes Altamonte Springs, Orlando, Winter Park and unincorporated Seminole and Orange Counties. The route traversing Montgomery road, SR 434, SR 436, Forest City Road, Edgewater Drive, Fairbanks Avenue, Denning Drive, Webster Avenue and US 17-92. This route operates from 5:15 am to 8:45 am Monday through Saturday, with 60-minute headways. There is no Sunday and holidays service. Route 23 ranks 47 out of the 59 fixed route services LYNX provides in route performance, with 1.09 passengers per revenue mile, 16.07 passengers per revenue hour, and 15.38 passengers per trip. The route has a farebox recovery of approximately 22.54%, with a \$3.12 subsidy per passenger.
  
- **LINK 102 (Orange Avenue/South 17-92).** Link #102 provides service between the Seminole County and LYNX Central Station in downtown Orlando. The service area includes Casselberry, Fern Park, Maitland, Eatonville, Winter Park and Orlando, with the route traversing US 17-92, Webster Avenue, Morse Boulevard, Denning Drive, New York Avenue and Orange Avenue. This route operates from 4:30 am to 12:45 am Monday through Friday, with 15-minute headways most of the day. Saturday, Sunday and holidays service is from 5:00 am to 11:50 pm with 30 minute service. Route 102 ranks 31 out of the 59 fixed route services LYNX provides in route performance, with 1.86 passengers per revenue mile, 19.91 passengers per

revenue hour, and 19.68 passengers per trip. The route has a farebox recovery of approximately 22.28%, with a \$2.36 subsidy per passenger.

- **LINK 313 (VA Clinic).** Link #313 provides service between the LYNX Central Station in downtown Orlando and the VA Clinic. The service area includes Orlando and Winter Park, with the route servicing the several elderly high rise towers in downtown Orlando, connecting them to the VA Clinic and shopping opportunities. The route traverses several downtown Orlando Streets as well as Central Avenue, Bumby Avenue, Corrine Drive, General Reese, and Glenridge Way. This route operates from 6:00 am to 7:35 am Monday through Saturday, with 60-minute headways. There is no Sunday and holidays service. Route 313 ranks 53 out of the 59 fixed route services LYNX provides in route performance, with 0.99 passengers per revenue mile, 9.06 passengers per revenue hour, and 7.88 passengers per trip. The route has a farebox recovery of approximately 11.23%, with a \$5.95 subsidy per passenger.
  
- **LINK 443 (Lee Road Crosstown).** This link provides a connection to between Pine Hills Road area at the transit center at Park Promenade Plaza and Florida Hospital Winter Park, via Lee Road and Winter Park Village. In Winter Park, the route traverses Lee Road, Webster Avenue, Denning Drive, Morse Avenue, New York Avenue and Aloma. It also dos a loop at the Florida Hospital Winter Park. This route operates from 5:25 a.m. to 8:15 p.m. Monday through Saturday, Sunday and holidays, with 60-minute service. Sundays and holidays, the service begins at 6:25 am, and ends at 6:23 pm. Route 443 ranks 10 out of the 59 fixed route services LYNX provides in route performance, with 2.04 passengers per revenue mile, 28.75 passengers per revenue hour, and 28.05 passengers per trip. The route has a farebox recovery of approximately 40.58%, with a \$1.26 subsidy per passenger.

Figure 1-1. Existing LYNX System

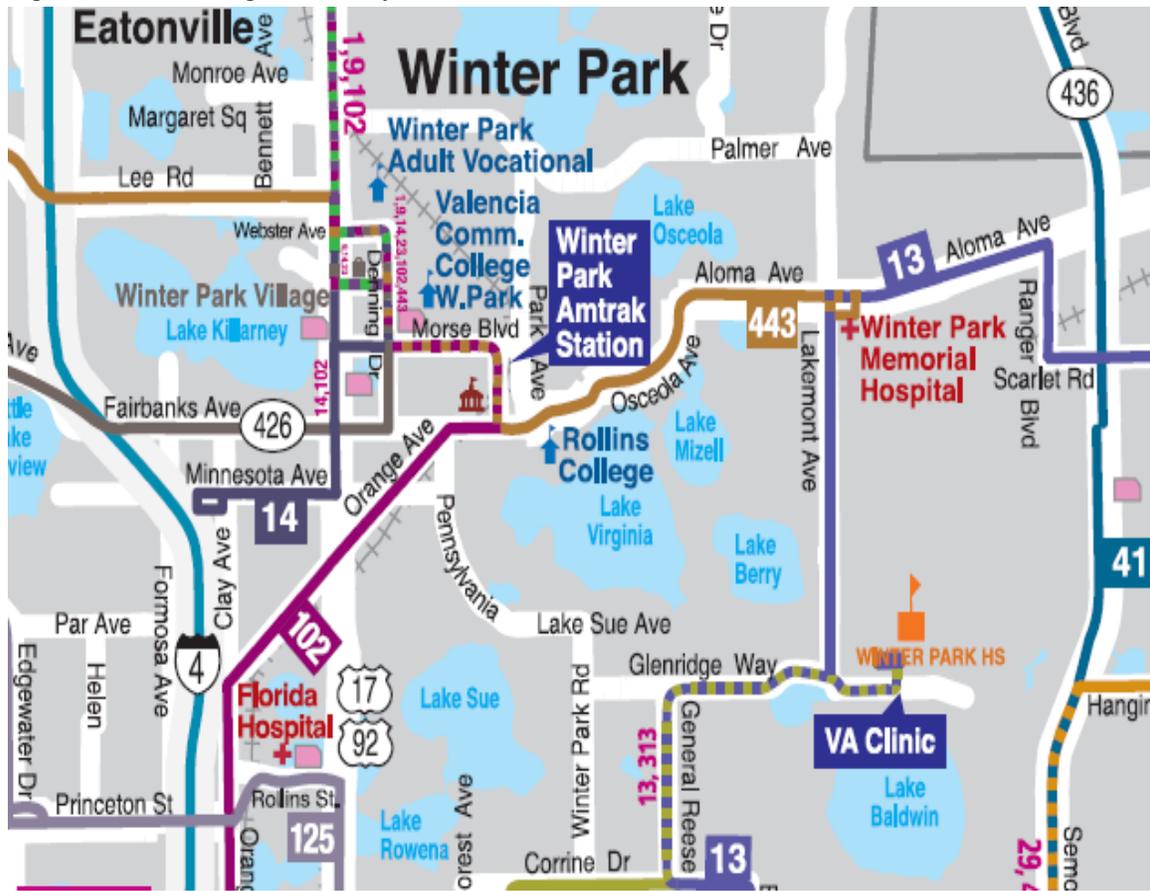


Table 1-2 summarizes the routes that serve Winter Park and the potential connection locations for the potential transit services.

Table 1-2: LYNX Connecting Service

Route	Link Name	Weekday Service (minutes)	Saturday Service (minutes)	Sunday Service (minutes)	Weekday Hours of Operation	Year 2010 Ridership (monthly)
1	Altamonte Spgs./Winter Pk.	60	60	N/A	16.5	6,938
9	Winter Park/Rosemont	60	30	60	19	16,457
13	UCF	60	30	60	19.5	25,182
14	Calvary Towers	60	60	60	14	2,046
23	Winter Park/Springs Village	60	60	60	15	11,325
102	Orange Ave./South 17-92	15	30	30	20	61,262
313	VA Clinic	60	60	N/A	13.5	11,242
443	Lee Road Crosstown	60	60	60	15	25,356

## **Planned/Programmed Improvements**

Since 1994, LYNX has periodically commissioned a Comprehensive Operations Analysis (COA), which evaluates the then existing transit system, and makes recommendation for a near term (five year), short term (ten year) and long range (ten to twenty year) planning horizon. The ultimate long-range “vision” of LYNX for transit in the Central Florida community consists of a “layered” approach of transit services that are defined to meet the travel demands of specific markets. Transit centers are expanded to provide convenient locations for route transfers. New park-and-ride lots are also proposed. The Long-Range Vision for transit is defined as 11 to 15-years in the future. Expanded transit funding sources are assumed as part of the Long-Range Vision. In general, transit services included in the Long-Range Vision include:

**Commuter Rail.** The Long-Range Vision includes commuter rail service from Saxon Boulevard in Volusia County to Poinciana Boulevard in Osceola County along the existing CSX Railroad. The primary travel market focus for commuter rail service is long distance work-based trips (e.g., to/from downtown Orlando).

**Transit Emphasis Corridor Routes.** These routes are the backbone of the proposed LYNX Long-Range transit network. Corridors have been identified along major arterial roadways that are proven transit markets (e.g., SR 436 and Colonial Drive). The Long-Range Vision reflects strong transit service in these corridors, with frequent service, enhanced passenger amenities, connections to local neighborhood routes at transit centers, and low cost roadway improvements that can improve bus on-time performance and travel times.

**Regional Routes.** An extensive network of regional routes has been proposed as a means to provide fast and convenient point-to-point service. These routes provide express and limited stop service to/from major regional destinations such as Downtown Orlando, Orlando International Airport, Disney and International Drive. These routes generally originate from transit centers and/or park-and-ride lots.

**Primary Local Routes.** These routes provide more localized service through neighborhoods and commercial districts. Primary local routes tend to be somewhat longer in length and less circuitous in routing than the secondary local routes.

**Secondary Local Routes.** These are local routes that focus more on neighborhood circulation, providing a transit connection to a nearby transit center.

**Call-and-Ride Zones.** This last category of service provides service in low-density areas. Residents that are located within a call-and-ride zone would call in advance to reserve a trip for a specified time. Trips would then be “chained” for passenger pick-ups/drop-offs. Small shuttle buses are proposed for call-and-ride zone service.

In addition, LYNX is also required by the Florida Department of Transportation (FDOT) to produce a Transportation Development Plan (TDP), which is updated every year and has a major update every three (3) years. This document provides a five-year and 10 year plan upon which LYNX provides input to the MPO five year Transportation Improvement Program and the Long Range Financially Constrained Plan. According to the LYNX plans submitted to the FDOT and MetroPlan Orlando (MPO), none of the projects below are currently listed in the five and 10 year plans, with the exception of routes related to Commuter Rail Service. Figure 2 presents the routes in the Long Range Plan.

### **Relevant LYNX Improvements**

The following paragraphs outline the improvements in the LYNX plans that are relevant to the Winter Park transit services.

### **Transit Facilities**

Implementation of the new LYNX transit system requires an extensive network of transit centers, superstops and park and ride lots to support the proposed transit network. Transit centers are locations in which transit links converge to facilitate safe passenger transfers between connecting Links to accommodate transit coach layover/dwell times and to ensure a high level of on-time performance. Superstops and Transfer Centers provide for transfer between multiple Links and serve as access points to transit for neighborhoods and community centers. They are located near activity centers, schools, shopping centers and residential complexes with a focus on community and commercial conveniences. These facilities, while they may vary depending upon site considerations, typically contain the following: several bus bays, passenger shelters, benches, lighting, an information kiosk, secure bicycle racks, and trash receptacles.

The existing and planned transit facilities, which will have an impact on the Winter Park transit routes or system include:

**Primary Transit Superstop**

- None Listed

**Primary and Secondary Transit Centers:**

- Winter Park Village (existing)
- University Boulevard and SR 436. (Even though not in City, this future off street facility will have an impact on ridership.)

**Regional Bus Park and Ride Lots:**

- None Listed

**Commuter Rail Park and Ride Lots**

- None Listed

**Commuter Rail Stations**

- Winter Park Amtrak Station. This will be discussed in next section.

**High Capacity Transit – Transit Emphasis Corridor Links**

As indicated in the LYNX documents, the high capacity transit links have minimal deviations from the major arterials to ensure quick transit travel times. These links serve many of the transit centers identified above, providing transfer connections to the Long Range Vision’s regional and local routes. Frequent service levels are proposed on the Transit Emphasis Corridor links to ensure minimum passenger wait times at transit stops. The maximum proposed peak or midday period service frequency proposed for a Transit Emphasis Corridor route is 15 minutes. Passenger amenity improvements are also envisioned as a critical element for the Transit Emphasis Corridor links.

Highway improvement measures are also proposed along these links as a means to improve bus travel times and on time performance. Such measures could include signal prioritization and bus queue bypass lanes at select intersections. Ridership is anticipated to build along these Transit Emphasis Corridors as service frequencies are improved, passenger amenities are added and travel time improvement measures are implemented. It is envisioned that service on some of these corridors could evolve into higher capacity transit modes, such as bus rapid transit or streetcar. Transit Emphasis Corridor routes have been numbered beginning with Link #100 and detailed descriptions of the proposed services that impact the Winter Park area follow.

**Route 102 – South 17-92**

This route currently operates from LYNX central Station to Fern Park via Winter Park Village. There are plans to increase the headways as shown below. In addition, the termini location at the north end of the route would change from Fern Park to the Altamonte Springs Commuter Rail Station. Proposed frequencies are as follows:

Period	Weekday	Saturday	Sunday
Peak Periods	15 minutes	15-minutes	30-minutes
Midday Period	15-minutes	15-minutes	30-minutes
Evening Period	15-minutes	15-minutes	30-minutes
Late Evening Period	30-minutes	30-minutes	30-minutes



**Regional Links**

An extensive network of regional links has been proposed by LYNX as a means to provide express or limited stop service to/from major regional trip destinations. These links typically begin at a proposed park and ride lot or transit center, and operate on Central Florida expressways or as limited stop service on major arterials to major employment destinations. Service on the OIA oriented links may be best suited for the over-the-road coaches with luggage compartments. Service on the other regional links should be accommodated with suburban coach buses (i.e. buses with high-back seats and over-the-seat luggage racks). There are no planned regional network routes that impact the Winter Park area.

**Collectors**

Collectors are local fixed routes that tend to be somewhat longer in length and less circuitous in routing. These Links have a 300-series designation. The routes that will impact the Winter Park area include the following.

**Link 300 – University Blvd./Lee Rd.**

This proposed link would begin at the existing University of Central Florida (UCF) transit center and follow University Boulevard. westbound to Ranger Boulevard. This link continues north on Ranger Boulevard and west along Aloma Avenue and Fairbanks Avenue to New York Avenue. In Winter Park, this link follows the existing Link 23 along New York Avenue, Morse Boulevard, Denning Drive, Webster Avenue, U.S. Highway 17-92, and Lee Road At U.S. Highway 441 (Orange Blossom Trail), this link travels northwest to the Rosemont transit center located on Rosewood Way. This route would combine the characteristics of existing routes 23 and 443. Proposed frequencies are as follows:

Period	Weekday	Saturday	Sunday
Peak Periods	30-minutes	30-minutes	60-minutes
Midday Period	30-minutes	30-minutes	60-minutes
Evening Period	60-minutes	60-minutes	60-minutes
Late Evening Period	60-minutes	60-minutes	60-minutes

**Link 319 – Downtown Orlando - Wymore Rd/Orange Ave – Altamonte Mall**

This link would operate between the LYNX Central Station (LCS) and the Altamonte Mall. This link alignment is similar to the existing Link 1, with some mid-route and northern segment exceptions. Proposed routing from the LCS is north on Magnolia Avenue/Orange Avenue serving Florida Hospital-Orlando. From Florida Hospital-Orlando, service continues north on

Orange Avenue and Clay Street to Fairbanks Avenue. At Fairbanks Avenue, service continues west on to Wymore Road, then north on Lake Destiny Drive to Wymore Road, continuing north along Wymore Road west/north and east along Westmont Drive, south along Douglas Avenue and east along State Road 436 to the Altamonte Mall transit center. Proposed service frequencies are as follows:

Period	Weekday	Saturday	Sunday
Peak Periods	30-minutes	30-minutes	60-minutes
Midday Period	30-minutes	30-minutes	60-minutes
Evening Period	60-minutes	60-minutes	60-minutes
Late Evening Period	60-minutes	No Service	No Service

**Link 320 – Kennedy Blvd./Lake Ave.**

This link would operate between the Park Promenade Plaza transit center to downtown Winter Park. This link alignment is similar to the existing Link 9. Proposed routing from the Park Promenade Plaza is from Silver Star Road, Powers Drive Indian Hills Road, Pine Hills Road, North Lane, Rose Bay Drive, Rose of Tralee Way, Lake Orlando and Cinderlane Parkway to the Rosemont transit center. This link then continues via All American Boulevard, Edgewater Drive, Forest City Road, Kennedy Boulevard, Lake Avenue, U.S. Highway 17-92, Webster Avenue, Denning Drive, Morse Boulevard and New York Avenue to downtown Winter Park. Proposed service frequencies are as follows:

Period	Weekday	Saturday	Sunday
Peak Periods	30-minutes	30-minutes	30-minutes
Midday Period	30-minutes	30-minutes	30-minutes
Evening Period	60-minutes	60-minutes	60-minutes
Late Evening Period	60-minutes	60-minutes	60-minutes

**Local Circulators: Secondary Links**

Secondary links tend to focus more on neighborhood circulation, providing transit connections to nearby transit centers while operating on a fixed route and fixed schedule. Smaller 25’ to 30’ buses are proposed for use on secondary links. Secondary links will have a 400-series designation. Following is a description of each of the proposed secondary links that impact the Winter Park area.

**Link 435 – Winter Park Circulator**

This link would operate as a circulator within the Winter Park area with a connection to Florida Hospital-Orlando. This link would begin at the Meadows, travel east on Monroe Avenue., south on Bennett Avenue., east on Elvin Avenue., south on U.S. Highway 17-92, west on Webster Avenue/Gay Road., to the Plymouth Apartments. This link would then return on Webster Avenue, south on Denning Drive., east on Canton Avenue., south on New York Avenue., west on Fairbanks Avenue., southwest on Orange Avenue., south on U.S. Highway 17-92, west on Princeton Street., north on N. Orange Avenue., east on Rollins Street, returning reverse routing to Winter Park. Proposed service frequencies are:

Period	Weekday	Saturday	Sunday
Peak Periods	30-minutes	60-minutes	No Service
Midday Period	30-minutes	60-minutes	No Service
Evening Period	30-minutes	60-minutes	No Service
Late Evening Period	No Service	No Service	No Service

**Central Florida Commuter Rail Project**

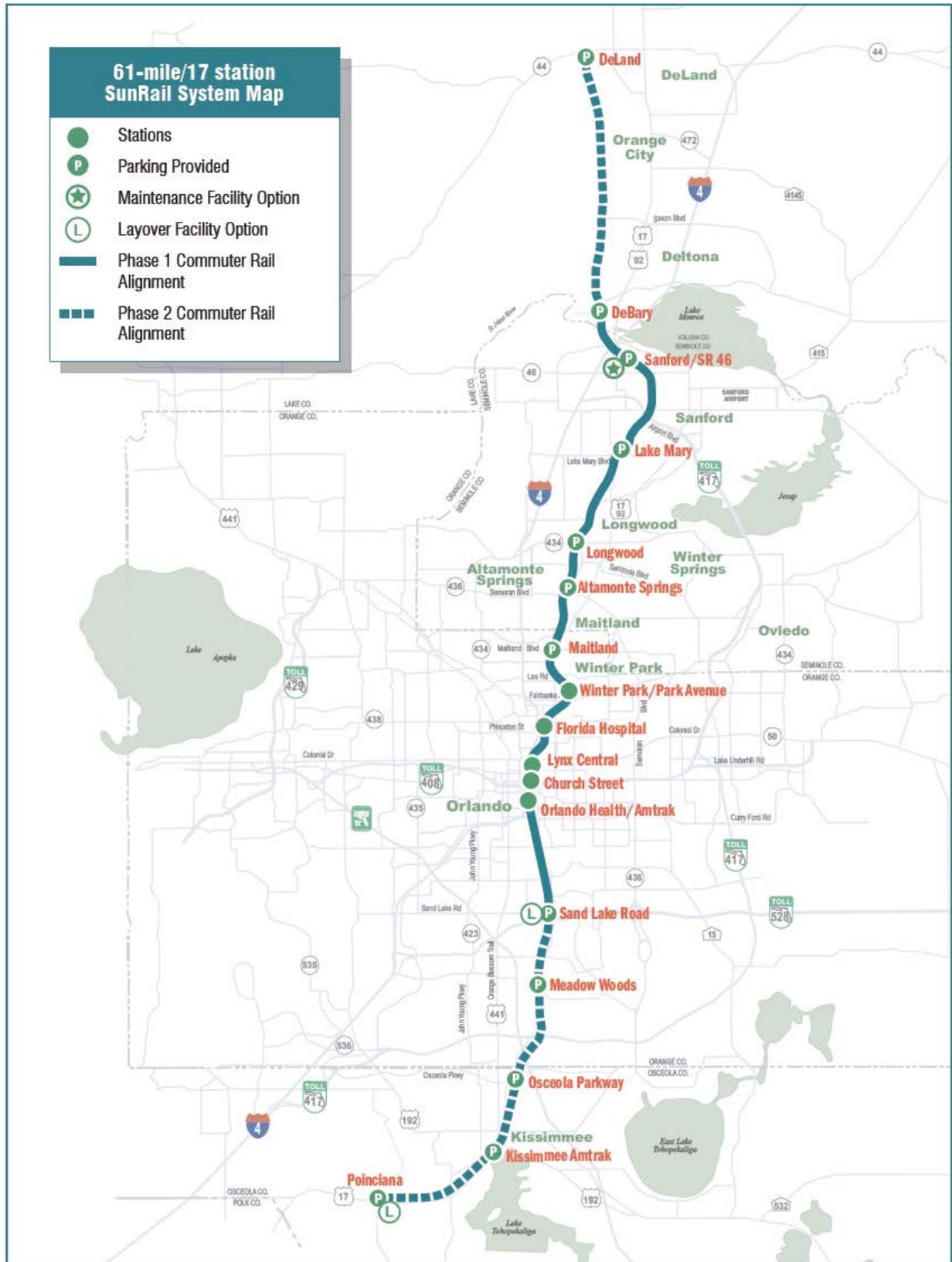
Based upon the business plan of CSX, which calls for voluntarily shifting through freight traffic out of congested areas along the “A” line through central Florida to the “S” line which is west of the Orlando metropolitan area, the Florida Department of Transportation (FDOT) has agreed to purchase approximately 61.5 miles of the CSX A-Line from Deland in Volusia County to Poinciana in Osceola County. CSX will retain easement for freight operations on the “A” line within specific operating windows, but the freight service schedule will change to reflect priority for commuter rail. Through the State’s SIS program, FDOT is contributing to a variety of construction projects necessary for the S-Line to handle increased freight on that CSX rail line. Primarily these improvements include expansion and replacement of the existing line as well as grade crossing separations. In addition, CSX is developing a new Integrated Logistics Center in Winter Haven.

The proposed Central Florida Commuter Rail Transit (CFCRT) project is currently in the Final Design (FD) stage of project development. The CFCRT Locally Preferred Alternative (LPA) is a 54-mile, 17 station (eight within Orange County) project, which will utilize the existing Class IV freight CSXT A-line railway, that runs through Central Florida. The project runs from Saxon Boulevard in Volusia County through Seminole County to Downtown Orlando from Downtown, the project runs through Osceola County and Kissimmee to Poinciana. The project will utilize Federal Railroad Administration (FRA) compliant push pull train sets (engine plus coaches and cab cars) to operate urban rail service, including bi-directional 15 minute headway peak hour, 30 minute off-peak and 60 minute evening and weekend service. This project is being sponsored by

the FDOT, in association with the region's two MPOs, two transit agencies, the City of Orlando and the four counties. Figure 3 presents the commuter rail alignment. There is a Commuter Rail Station in Winter Park.

There exists a potential next phase of the CFCRT project which could utilize the existing Orlando Utilities Commission (OUC) railroad line that extends east from the CSXT "A" line to the Stanton Energy Plant. This line is located to the south of the Orlando International Airport (OIA). This corridor is currently utilized for the transport of coal, and is a single track within, on average, a 100-foot right-of-way. Given the CFCRT project and the existence of the OUC corridor as well as the nature and vacancy of land within the area, there exists a potential to extend CRT to OIA in the future, with potential connection beyond OIA, depending on land development and funding availability. The first phase of the commuter rail line from DeBary to Sand Lake Road will begin operation in 2013 and is expected to carry as many people as one lane of Interstate 4 traffic during peak times. In terms of capacity, the initial operation plan will have 30-minute peak hour service. This equates to the directional capacity provision for 700 people in the peak hour.

Figure 1-3: Proposed Central Florida Commuter Rail Transit System



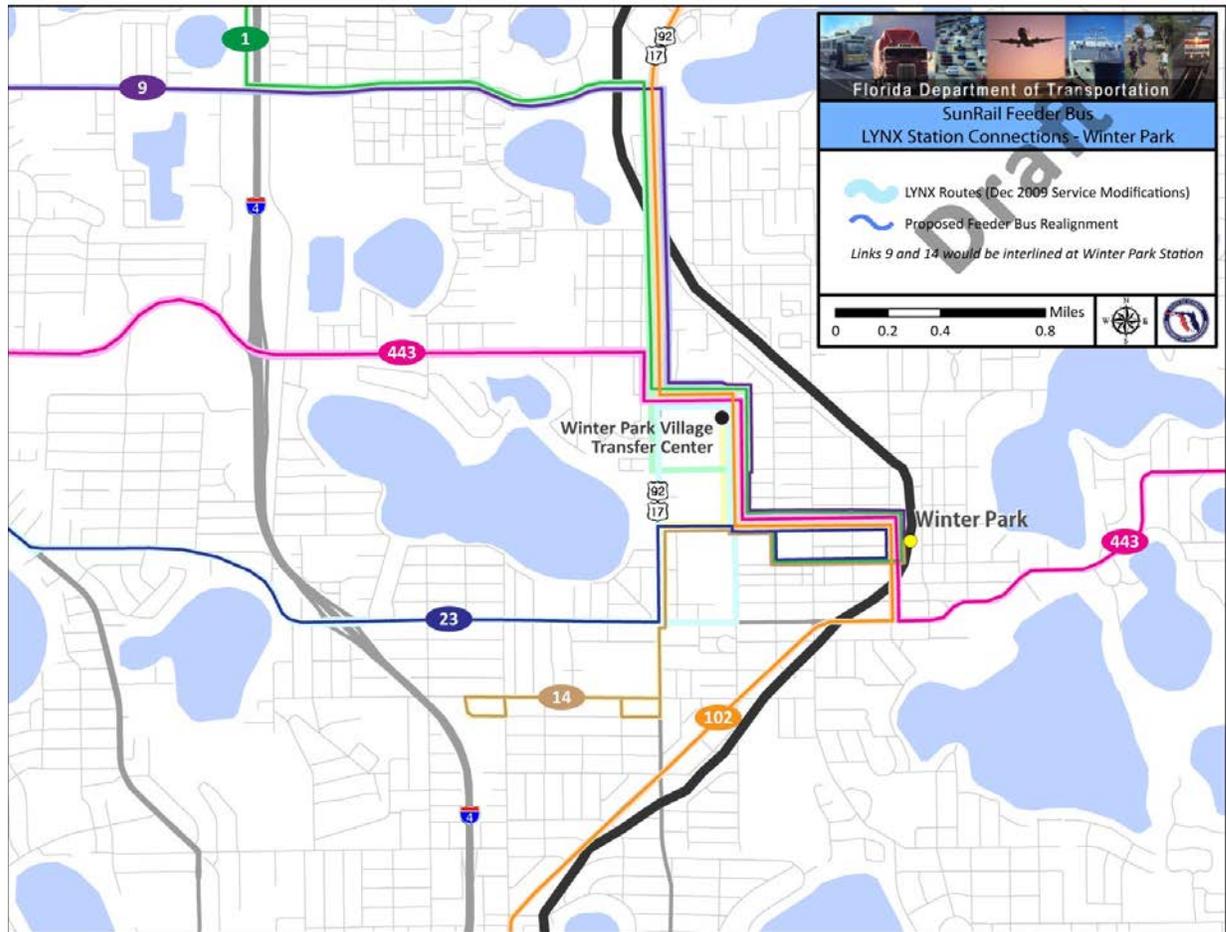
The proposed 15-minute service will have the directional capacity provision of 1,400 persons in the peak hour.

### **Winter Park Station**

The “Winter Park Station” is located in the City of Winter Park, in Orange County, Florida on the east side of New York Avenue, south of the intersection with East Morse Boulevard. The west side station area is adjacent to the City owned Amtrak site, and Amtrak platform facilities, and will include the commuter rail station platform. The eastside platform is within the acquired CSX right of way. As this is a destination station, there is no separate parking provided for the commuter rail project. Access to the facility will consist of pedestrian access, drop off at the station, a city provided bus drop off on Morse Boulevard and an access driveway on Morse Boulevard.

With the advent of commuter rail, FDOT has agreed to assist in the cost of providing feeder bus service to the commuter rail stations. In some cases, this includes the rerouting of existing or proposed bus routes. LYNX, FDOT and Winter Park have developed a rerouting plan for Routes 1, 9, 14 and 23 to access Winter Park Station. LYNX and FDOT have assured Winter Park representatives that no areas losing service due to the reroutings have high levels of ridership, namely sections of Fairbanks Avenue and Denning Drive. In addition, LYNX and FDOT have assured Winter Park that bus transfer activity and bus layovers will continue to remain at Winter Park Village Transfer Center. As part of the feeder bus service plan, Winter Park recommended that the Winter Park loop (currently proposed to operate on Morse Boulevard, New York Avenue, New England Avenue and Denning Drive, be shifted from Denning Drive over Capen Avenue. This modification and change will be reflected in future feeder bus plans. Figure 4 presents the feeder bus plan as of April 2010.

Figure 1-4. Winter Park Feeder Bus Plan



## **Section II**

# **Proposed Traffic and Transportation Plan**

## *Section II Proposed Traffic and Transportation Plan*

This section of the plan focuses on proposed improvements to the primary roadway network within the City of Winter Park in order to promote improved mobility on collector and arterial roads. Quality of traffic flow on the City's collector and arterial roadways plays a vital role in the ability to efficiently move around the City as well as the ability to protect the neighborhoods (local roads) from excess traffic impacts. If mobility is not good, much delay is experienced by all motorists creating inefficiency and frustration along with promoting cut through traffic in the neighborhoods, all of which reduces the function of collectors and arterials to determine ways to improve efficiency since these roadways are constrained and adding additional travel lanes is not practical or desired. A list of improvement projects has been developed to improve efficiency on the City's collector and arterial network.

These improvement projects were generated from previous reports and studies, resident input and local staff knowledge. This list is a starting point and a snapshot in the continual process of improvement which has been underway for many years. The proposed projects locations are shown on the city map on the following page. They are listed in Table 2-1 PROPOSED TRANSPORTATION PROJECTS following the map, and they are described in more detail after the Proposed Transportation Projects table. Funding for the proposed projects is anticipated from various sources including future General Fund allocations, state and federal funding through MetroPlan and/or earmarks, local grants, and CRA.

Improvement of the City's transportation network is a continual process and recent accomplishments in the process of improving mobility are listed in Table 2-2 COMPLETED TRANSPORTATION PROJECTS on the following pages. Funding for these completed projects came from various sources including the City's General Fund, FDOT, CRA Funds and Grants.

### **Functional Classification**

To promote the concept of a balanced transportation network, an overriding concept is to encourage traffic to use roads in their intended hierarchy when traveling through and within the City. This hierarchy is established and described in the City's Comprehensive Plan. It includes the classification of roads depending on their function in the transportation network. These include arterials, collectors and local roads. Using the road network hierarchy and from a resident viewpoint, all trips generally start or end at a residence on a local road. As the trip progresses, travel may occur on one or several local roads and will generally end up on a collector road. As the trip continues, travel may occur along one or more collector roads and may even include travel on an arterial road. Depending on the destination, the trip may end along the arterial or collector road where most commercial businesses are located. If the

destination is to a residence, then the trip will continue on an arterial or collector, traveling down the hierarchy to end on a local road. This is how the network should ideally function. Problems occur when trips abandon the collector or arterial and travel on local roads only to get back on another collector or arterial to proceed with the trip. This is a violation of the hierarchy of the road network and can be termed “cut-thru” traffic which can adversely impact our quality of life.

An important element to promote proper use of the road network is the quality of mobility on the collector and arterial network. If the mobility is good, then there should not be a desire to violate the hierarchy by jumping from one collector or arterial using a local road to avoid congestion.

# Winter Park Traffic and Transportation Plan

## Jurisdictional Boundaries

- Eatonville
- Maitland
- Orlando
- Winter Park
- Orange County
- Seminole County



## Project Locations

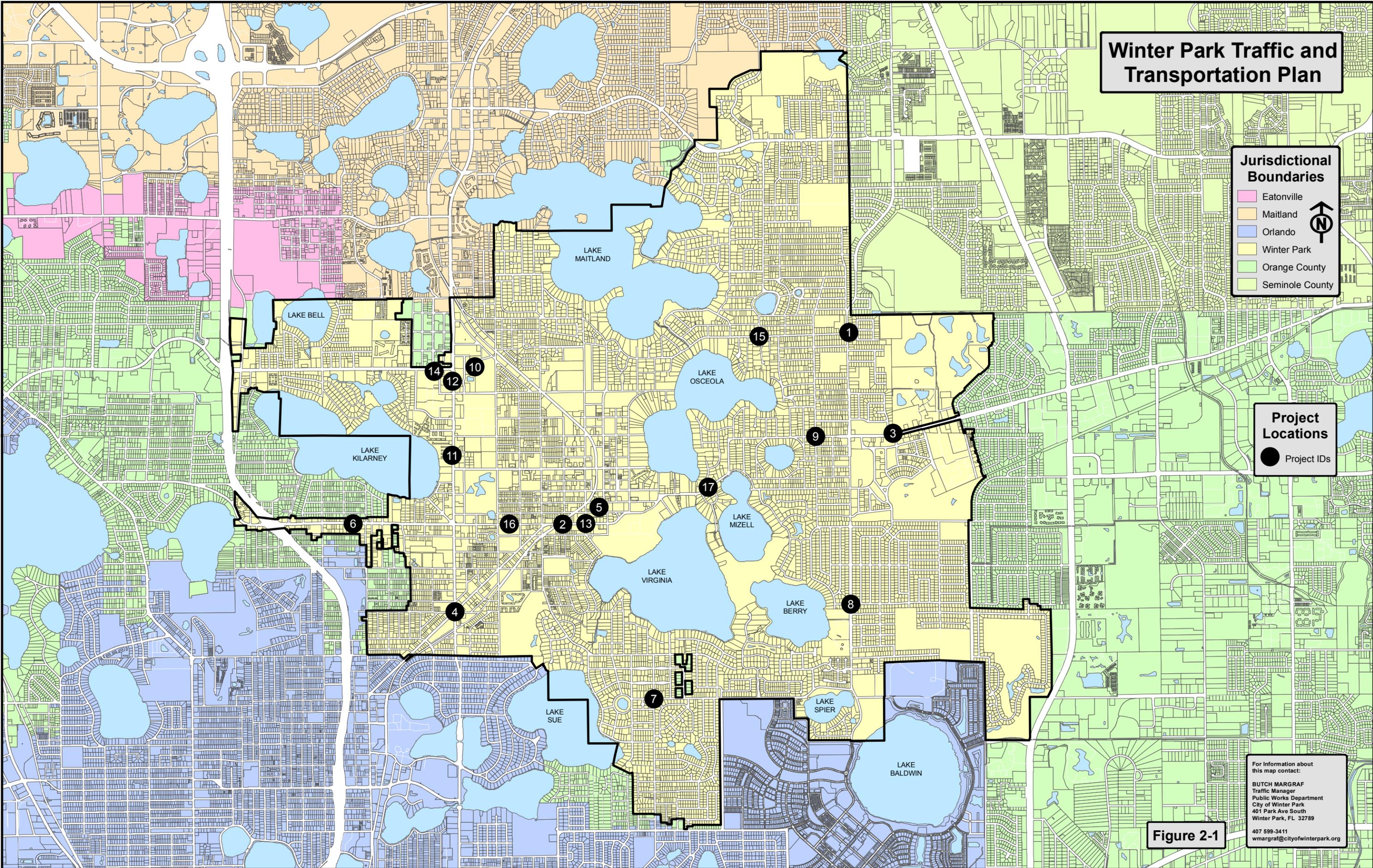
- Project IDs

For information about this map contact:

**BUTCH MARGRAF**  
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Winter Park, FL 32789

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Figure 2-1



PROPOSED TRANSPORTATION PROJECTS							
	Project Name	From	To	Description of Improvement	Estimated Cost	Staff Priority Rank	Funding Source
1	Rebuild Lakemont Palmer Traffic signals	Lakemont Ave	Palmer Ave	Rebuild Traffic Signals - added 3 signalized xwalks	100,000	1	unfunded
2	Construct Conduits for Interconnect on Fairbanks Ave	New York Ave	Orlando Ave	Construct conduits, pull boxes, and communication lines for traffic signal coordination	40,000	2	unfunded
3	Construct Conduits for Interconnect on Aloma Ave	Lakemont Ave	Balfour Ave	Construct conduits, pull boxes, and communication lines for traffic signal coordination	40,000	3	unfunded
4	Construct Dual Left Turns on Orange Ave at Orlando Ave	Orange Ave	Orlando Ave	Reconfigure the northeastbound and southwestbound traffic lanes for dual left turns	50,000	4	unfunded
5	Implement City Wayfinding Plan	citywide		Install directional signs for guests and visitors	50,000	5	unfunded
6	Fairbanks Ave Roadway Improvements Project	I4	Orlando Ave	construct sanitary sewer line along center line of roadway, streetscape, upgrade traffic signals		6	unfunded
7	Minnesota Ave Bike Facilities	Orlando Ave	Overspin Ave	Construct bike lanes and bike route on Minnesota Ave as a parallel and alternate route for Fairbanks	500,000	7	unfunded
8	Rebuild Glenridge Winter Park signals	Winter Park Rd	Glenridge Way	Rebuild Traffic Signals - add 4 signalized xwalks	75,000	8	unfunded
9	Rebuild Lakemont Whitehall signals	Lakemont Ave	Whitehall Drive	Rebuild Traffic Signals - add 4 signalized xwalks	100,000	9	unfunded
10	Modify Aloma Phelps signal	Aloma Ave	Phelps Ave	modify signal geometry to split phase Phelps Ave traffic movements	50,000	10	unfunded
11	Lee Road Extension	Orlando Ave	Denning Drive	extend Lee Road east to Denning Drive, this is a condition of the 1792 Master Plan with FDOT	10,000,000	11	unfunded
12	1792 Orlando Ave Master Plan	city limits north	city limits south	reconstruct Orlando Ave with wider sidewalks, medians, narrower lanes, landscaping	3,000,000	12	unfunded
13	Modify SB Left Turns at Webster Ave on 1792	Orlando Ave	Webster Ave	remove SB left turn lane, relocate concrete median to lengthen NB Lee Rd left turn lane	50,000	13	unfunded
14	3 Lane Denning Drive	north RR crossing	Orange Ave	modify lane geometry to 3 lanes with bike lanes	1,000,000	14	unfunded
15	Reconstruct New York Fairbanks Intersection	Fairbanks Ave	New York Ave	rebuild the intersection and signals relocating the NW corner pole and controller cabinet	150,000	15	unfunded
16	3 Lane Lakemont Ave	Edwin Blvd	Pine Ave	modify lane geometry to 3 lanes with bike lanes	750,000	16	unfunded
17	Remove Winter Park Road School Zone	Dana Way	Spring Lane	remove the flashing school light assemblies	1,000	17	unfunded
18	Alternate Route to Orlando Ave signs on Lee Road	Lee Road	Orlando Ave	install Alternate Route signs on Lee Road approaching Executive Drive	500	18	unfunded
19	Temple Drive Palmer Ave Traffic signal	Palmer Ave	Temple Drive	construct a residential scale traffic signal at Palmer and Temple intersection with signalized peds	100,000	19	unfunded
20	Fairbanks Ave Right of Way Acquisition	Pennsylvania Ave	Orlando Ave	Acquire right of way along Fairbanks Ave to add left turn lanes to EB Pennsylvania Ave, EB and WB Denning Drive, and increase right turn storage capacity WB at Orlando Ave		20	unfunded
21	Construct Traffic Signal at Henkel Circle Trismen Terrace on Osceola Ave	Fairbanks Ave	Henkel Circle	construct a traffic signal on Osceola Ave at Henkel Circle/Trismen Terrace	200,000	21	unfunded

## **Proposed Traffic and Transportation Plan Improvements**

The following items are descriptions of the projects in the Proposed Transportation Projects Table 2-1 written with more details of the projects.

1. Rebuild intersection signals at Lakemont Ave and Palmer Ave. Add a left turn arrow southbound. Add 3 additional signalized and striped pedestrian crossings. This intersection improves the connection of neighborhoods on the east side of Lakemont Ave to Lakemont Elementary School, the YMCA, and Phelps Park.
2. Construct conduits, pull boxes, and communication lines on Fairbanks Ave from New York Ave, to Pennsylvania Ave, to Denning Drive, and to Orlando Ave. The interconnection of signals will permit direct communication between signals for better traffic signal coordination resulting in improved traffic flow.
3. Construct conduits, pull boxes, and communication lines on Aloma Ave from Lakemont Ave to St Andrews Blvd, and to Balfour Drive. The interconnection of signals will permit direct communication between signals for better traffic signal coordination resulting in improved traffic flow.
4. Reconfigure the northeastbound and southwestbound traffic lanes at the intersection of Orlando Ave and Orange Ave to include one thru lane and dual left turn lanes. Modify the signal head and pavement marking geometries. The left turn demand in both directions at this signal is high and during peak hours demand often exceeds capacity. The capacity for northeastbound and southwestbound Orange Avenue left turns will be increased to better meet the left turn demands.
5. Implement the City Wayfinding Plan throughout the City. This project is a system of destination signs that will direct guests and visitors to places of interest within Winter Park. Clear and informative wayfinding signs will reduce traffic congestion caused by drivers searching for destinations.
6. Reconstruct Fairbanks Ave from Orlando Ave to Interstate 4. The Utility Department's "Fairbanks Avenue Roadway Improvements Project" includes sanitary sewer construction work to replace existing septic sewer systems and streetscaping work to upgrade Fairbanks Ave functionally and aesthetically. This project will promote Fairbanks Ave redevelopment. Included in this project are new mastarm style traffic signals on Fairbanks Ave at Clay Street and Formosa Ave with improved pedestrian crossings, landscaped medians, and left turn lanes.

7. Rebuild intersection signals at Winter Park Road and Glenridge Way. This project includes replacement of the old signal equipment, excluding concrete signal poles, and adding 4 new signalized pedestrian crossings.
8. Rebuild the intersection signals at Lakemont Ave and Whitehall Drive. This project includes replacement old signal equipment, including replacing signal poles with mastarm poles, and adding 4 new signalized pedestrian crossings.
9. Modify the signal head geometry and the timing of the traffic signals at the Aloma Ave and Phelps Ave intersection to split the northbound and southbound traffic movements.
10. Construct the Lee Road Extension to Denning Drive per the Orlando Avenue Master Plan. The majority of the cost for this project is for land and right of way acquisition. This change will improve the Orlando Ave traffic flow and decrease the current congestion on Orlando Ave in the Webster Ave to Lee Road segment.
11. Reconstruct the Orlando Avenue corridor per the Orlando Avenue Master Plan. This plan includes widening the sidewalks by relocating the existing curb line, narrowing the thru travel lanes, adding street trees and landscaping in sidewalk planters, and modifying the bi-directional turn lane to include left turn lanes and raised medians for improved pedestrian mobility.
12. Remove the southbound left turn traffic movement at the intersection of Orlando Ave and Webster Ave. Modify the signal head geometry and the timing of the traffic signals. Relocate the current southbound left turn concrete median separator on Orlando Ave to the median side edge of the southbound thru lane. This change will increase left turn storage capacity for northbound left turns onto Lee Road, and it will reduce the frequency for both northbound and southbound of left turning vehicles blocking thru traffic lanes.
13. Reconstruct the intersection on Fairbanks Ave at New York Ave. This project includes mastarm style traffic signals, relocation of the traffic signal controller cabinet, and increasing the curb radius of the northwest corner. The larger curb radius will facilitate the right turns of trucks and buses.
14. Construct “Alternate Route To Orlando Ave” signs for eastbound Lee Road to alert drivers of Executive Drive as an alternate route to Orlando Avenue.
15. Construct a traffic signal in residential scale at the intersection of Palmer Ave at Temple Drive. This project includes 2 signalized pedestrian crossings.

16. Acquire Fairbanks Ave right of way (ROW) from Pennsylvania Ave west to Orlando Ave. Add left turn lanes at eastbound and westbound Pennsylvania Ave, eastbound and westbound Denning Drive, and increase the vehicle storage capacity for the westbound lanes at Orlando Ave.

17. Construct a traffic signal at Trismen Terrace/Henkel Circle and Osceola Ave intersection. This signal would provide a safe pedestrian crossing, and it would provide signalized vehicle access to Osceola Ave for Henkel Circle, Genius Drive, and Audobon Lane residents on the south side of Osceola Ave, and signalized access for Trismen Terrace, Detmar Drive, Seymour Ave, Lakewood Drive, Alberta Drive, and Cortland Ave residents on the north side of Osceola Ave. These residents have no alternative ingress and egress to their neighborhoods.

COMPLETED TRANSPORTATION PROJECTS										
	Project Name	From	To	Description of Improvement	Comp	Type	Estimated Cost	Staff Priority Rank	Commission Rank	Funding Source
1	Convert Signals to LED	citywide		Convert 21 State Road intersections to LED	Y	T	85,000			Police forfeiture funds
2	Rebuild Orange Denning Minnesota signals	Orange Ave	Denning Drive	Const mastarm signals, relocate signal setback to design standards, split phase Minnesota Ave	Y	T	279,976			CRA/Assessments
3	Rewire New England Interlachen signals	New England Ave	Interlachen Ave	rewire signals for reliability and delay of total intersection rebuild expense	Y	T	3,500			Streets Signal Maintenance
4	Video Detection Orlando Ave	Lee Road	Orange Ave	replace loop detection for Orlando Ave signals with video detection. Wire loops not reliable in concrete roadway	Y	T	140,000			FDOT
5	Install Protected Left Turn	Howell Branch Rd	Temple Trail	install eastbound protected left turn phase	Y	T	3,500			Stormwater
6	Install Protected Left Turn	Howell Branch Rd	Via Tuscany	install westbound protected left turn phase	Y	T	3,500			Stormwater
7	Rebuild Fairbanks Denning signals	Fairbanks Ave	Denning Drive	rebuild signals, split phase Denning Drive	Y	T	98,470			FDOT
8	Reconstruct Holt Ave	Park Ave	Pennsylvania Ave	brick Holt Ave adding 2 raised crosswalks	Y	T	358,276			Street Bricking Program
9	Reconstruct French Ave	Holt Ave	Lakeview Drive	brick French Ave	Y	T	152,827			Street Bricking Program
10	Retime Coordinate signals Orlando Ave	Lee Road	Orange Ave	collect exist data, retime, coordinate all signals	Y	T	20,200			FDOT
11	Retime Coordinate signals Fairbanks Ave	I4	SR 436	collect exist data, retime, coordinate all signals	Y	T	65,300			FDOT
12	Rebuild EB off Ramp	I4	Fairbanks Ave	rebuild signals, widen traffic lanes	Y	T	50,000			FDOT
13	Rebuild Canton Signals	Denning Drive	Canton Ave	Const Mastarm Signals - added 4 signalized xwalks	Y	TP	75,000			CRA
14	Rebuild Webster Signals	Denning Drive	Webster Ave	Const Mastarm Signals - added 2 signalized xwalks - added 4 blankout No Turn On Red signs	Y	TP	105,655			CRA
15	Rebuild Morse Signals	Denning Drive	Morse Blvd	Const Mastarm Signals - added 4 signalized xwalks	Y	TP	79,855			CRA
16	Streetscape Webster Ave	Denning Drive	Pennsylvania Ave	narrow travel lanes, widen sidewalk	Y	TP	374,254			CRA
17	Restrung Fairbanks Chase signal	Fairbanks Ave	Chase Ave	added signalized ped signal for Chase Ave	Y	TP	26,572			FDOT

# **Section III**

# **Pedestrian and Bicycle Circulation Plan Update**

This section of the Traffic and Transportation Plan (TTP), the Pedestrian and Bicycle Circulation Plan Update, is a separately prepared document inserted into the TTP. The City Pedestrian and Bicycle Advisory Board along with City staff compiled the report and the board has adopted it to guide pedestrian and bicycle improvements in the City of Winter Park.

# 2010



## Pedestrian and Bicycle Circulation Plan Update



Adopted by:

The Pedestrian Bicycle Advisory Board

July 12, 2010

# **Pedestrian and Bicycle Circulation Plan**

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## Introduction

The City of Winter Park Pedestrian and Bicycle Circulation Plan (PBCP) provides an overview of specific pedestrian and bicycle improvements throughout the City.

### What is the Pedestrian and Bicycle Circulation Plan?

The Pedestrian and Bicycle Circulation Plan is the City's blueprint for pedestrian and bicycle travel. First adopted in 1995 and originally identified as the Bicycle Circulation Plan (BCP) (See appendix C) it recognized the need to reconcile two seemingly conflicting goals: to provide mobility and access throughout the city in a way that is safe to all modes of transportation and convenient; and, to preserve the charm and tranquility of Winter Park by minimizing automobile congestion, air pollution, and noise.

The PBCP operates under the policy umbrella of the Winter Park Comprehensive Plan. In order to establish the setting for this Pedestrian Bicycle Circulation Plan, the following paragraphs are excerpts from the City Comprehensive Plan Transportation Element.

**2-1: TRANSPORTATION GOALS, OBJECTIVES, AND IMPLEMENTING POLICIES.** *This section stipulates goals, objectives, and implementing policies for the Transportation Element pursuant to 9J-5, FAC. The purpose of this element is to provide guidance for appropriate plans and policies needed to insure a walkable, pedestrian and bicycle-friendly, treed, relaxed, beautiful, safe, urban village that promotes neighborliness and courtesy among citizens and visitors.*

**Goal 2-1: BALANCED TRANSPORTATION SYSTEM.** *It shall be the goal of the City of Winter Park to ensure the provision of a balanced transportation system that promotes its mission.*

**OBJECTIVE 2-1.1: SAFE AND BALANCED MULTIMODAL SYSTEM.** *The design and character of the streets within Winter Park shall create a safe, balanced multimodal transportation system that promotes and supports the broad transportation needs of current and future Winter Park residents. The attached Figures 13 and 14 serve as the City's official near term (five year) and long term (20 year) future transportation plan.*

**Policy 2-1.1: Transportation System Principles.** *The continuous improvement of the City's transportation system is dependent on coordinating all improvements to the transportation network and to develop improvements that support that network. The Transportation Element Goal recognizes transit, bicycle and pedestrian activities as alternative modes of transportation for each street in the community.*

**Policy 2-1.2: Final Design for Streets.** *The City shall seek citizen and business participation in those decision-making processes related to the transportation planning process, roadway modifications, transit service, the provision of bicycle and pedestrian amenities, and other design characteristics.*

**Policy 2-1.4: Implementing Regulations.** *The City shall utilize land use, zoning, the Land Development Code, concurrency management, transportation impact analyses, proportionate fair share and other applicable regulations to coordinate the design of network facilities, transit*

corridors, **bicycle and pedestrian** facilities, appropriate setbacks, rights-of-way, and centerlines of the roadway network.

**Policy 2-1.5: Pedestrian and Bicycle Advisory Board.** *The City Council shall continue the function of the Pedestrian and Bicycle Advisory Board to review and improve the **pedestrian and bicycle** circulation system, and pursue and direct funding for improvements. Appointments to the Board shall be comprised of Winter Park residents made by City Council. Board Advisors shall include representatives from Planning and Community Development, Public Works, Public Safety, and Parks and Recreation.*

**Policy 2-1.6: Route-to-School Plan.** *The City shall by 2010, create a plan for school access for students living within the City that walk to school and those students that walk to schools within the City. At a minimum, the plan will recommend enhancements to the sidewalk, pedestrian crossings, and bicycle network.*

**Policy 2-1.7: Sidewalk Inventory.** *The City will continue to inventory the location and conditions of the sidewalk network, as well as crosswalk locations, on all roadways.*

**Policy 2-1.8: Sidewalk Program Principles.** *The City currently has a Sidewalk Program. The Sidewalk Program is based upon the following principles:*

- *Every Arterial and Collector level facilities will have a continuous sidewalk on both sides of the street.*
- *Every Local Street will have a continuous sidewalk on one side of the street.*

**Policy 2-1.9: Sidewalk Program Priorities.** *The priority installation of new sidewalks and the reconstruction of existing sidewalks on Arterial, Collector and Local Streets shall be generally ranked by the following categories:*

1. *Proximity to School (1-mile, or less)*
2. *Proximity to Transit Stop (1/4-mile, or less)*
3. *Proximity to Public Park (1/2-mile, or less)*
4. *Neighborhood or resident request*

*The order of construction within categories shall be determined by: vehicular traffic speed, vehicular lane width, vehicular volumes, pedestrian usage, proximity to a pedestrian attractor, and construction feasibility.*

**Policy 2-1.10: Provide a Bicycle Circulation System.** *The City, in partnership with Orange and Seminole Counties, MetroPlan Orlando, and other local and state agencies, will continue to plan, fund and construct a network of bicycle facilities as depicted in the Winter Park Bicycle Circulation Plan, to increase the non-motorized transportation system.*

## **Purpose of the 1995 BCP and the PBCP update**

The PBCP update builds on the 1995 BCP and embraces its stated purposes:

### **I. To Maintain Winter Park as the Premier Urban Village in the State of Florida**

Winter Park has evolved as one of the most livable and memorable communities in Florida. Public spaces like streets, squares, and parks were designed to be the urban setting for everyone to conduct their daily lives. Thousands of oaks were planted by prior generations for the enjoyment of current generations. Neighborhoods were designed to accommodate diverse people and activities. This pedestrian and bicycle system will help maintain and enhance a more livable environment for ourselves and our children.

### **II. To Minimize Threats to Winter Park's Urban Fabric**

Over the last thirty years, Winter Park's very livable urban fabric has been slowly chipped away. Society has locked itself into the automobile as the only means of transportation regardless of who we are, what our age, and where we are going. We must begin to provide the infrastructure to encourage other forms of transportation to protect Winter Park's livable urban fabric.

### **III. Develop Viable Transportation Alternatives**

Bicycle travel is becoming an important element of local transportation systems for communities throughout the country. In Boulder Colorado, a large percentage of all travel in the City is done by walking, bicycling, or riding transit. In Davis California, a large percentage of the population commutes to work by bicycle. Winter Park's Pedestrian and Bicycle Circulation Plan will facilitate walking and bicycling as a viable transportation alternative for residents.

### **IV. To become an Important Element of Winter Park's Community Planning Effort**

The basis of the 1995 BCP was the "Winter Park in Perspective" planning process to rediscover the planning and architectural traditions that had shaped the City. For example, the "Treasured Places" workshop citizens identified hundreds of locations throughout the City which they wanted preserved, or enhanced. The BCP utilized these ideas of Winter Park residents to develop the plan for a more successful system. The Winter Park 1995 BCP was developed with the participation of the following groups:

#### **WINTER PARK RESIDENTS**

-The residents of the City participated in a series of workshops in the spring of 1995;

#### **SURROUNDING COMMUNITIES**

-Representatives from the City of Orlando, the City of Maitland, and Orange County were on hand at the workshops in 1995 to assist in making connections between Winter Park and their communities; and

#### **ROLLINS COLLEGE**

-Students in the Environmental Studies department at Rollins College in 1995 developed and applied a method for determining the bicycle friendliness of roadways in Winter Park.

-In the year 2000 a Pedestrian and Bicycle Advisory Board of resident walkers, cyclists, and city staff was established to facilitate pedestrian and bicycle improvements throughout the city.

-In September of 2007 residents of the City and the Neighborhood Council participated in the effort to update the existing 1995 plan.

The ideas and information for this update of the PBCP are the compilation of the 1995 BCP plan (Appendix C), the existing pedestrian and bicycle facilities, the proposed pedestrian and bicycle improvements, and input from residents for updating the plan.

## Pedestrian and Bicycle Facility Descriptions

The following pictures and paragraphs present common pedestrian and bicycle facility descriptions.



**Bike Paths (Trails)**, like the Cady Way Trail, are used for non-motorized travel and are physically separate from streets. All paths in Winter Park are multi-use facilities available to everyone – bicyclists, skaters, skateboarders, runners and walkers. They provide a pleasant place for recreation because they are separated from streets and conflicts with automobiles.



**Bike Lanes** are portions of streets reserved for the exclusive use of bicycles. They are designated by signs and pavement markings showing a bicycle and a diamond-shaped restricted lane symbol. Bike Lanes are typically found on arterial streets.



**Bike Routes** are streets which are well-suited for cycling. They are identified with a green bike route sign. Bike routes are generally residential streets. The majority of Winter Park’s streets do not have a specific bike route designation. However, all City streets are open to cycling.



Many **bike routes** in the City do not have bicycle pavement markings, but selected streets will have the “**sharrow**” marking on the pavement to identify to vehicles and cyclists the shared use of the street.



**Bike Parking** should be provided at bicycle destinations, such as schools, parks, stores, high employment concentrations, and major transit stops. The City passed a Bicycle Parking Ordinance in 2006 to accomplish this.



**Trailheads** are intended to be reference points of entry and gateways to the Winter Park bicycle network. Trailhead amenities may include information kiosks, drinking fountains, benches, tables, automobile parking, and related facilities.



**Multiuse Sidewalks** are sidewalks that are a minimum 8 feet wide and usually are found through or adjacent to neighborhoods. They serve not only pedestrians but the inexperienced cyclists, usually young children.



Typical **Sidewalks** that are 4 to 5 feet wide are found throughout the residential neighborhoods. They serve not only pedestrians but the inexperienced cyclists, usually young children.



**Curb-cut Ramps** are found at all intersections of streets with sidewalks.



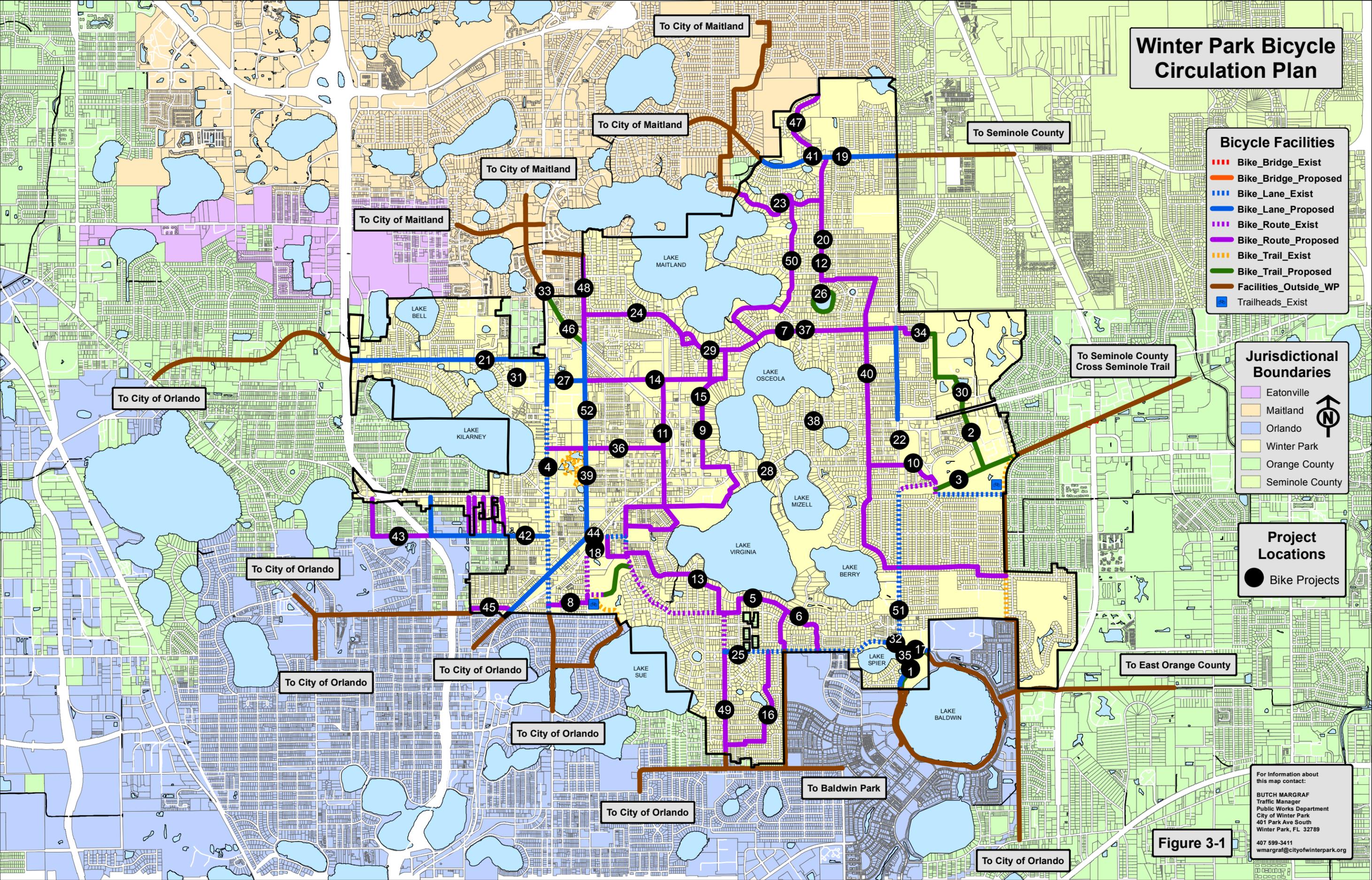
**Sidepaths** are paths or sidewalks that have been designated for use by cyclists and are within the right of way of a public road, but are not immediately adjacent to vehicular traffic (i.e., the traveled way).

# Winter Park Bicycle Circulation Plan

- ### Bicycle Facilities
- ▬▬▬ Bike\_Bridge\_Exist
  - ▬▬▬ Bike\_Bridge\_Proposed
  - ▬▬▬ Bike\_Lane\_Exist
  - ▬▬▬ Bike\_Lane\_Proposed
  - ▬▬▬ Bike\_Route\_Exist
  - ▬▬▬ Bike\_Route\_Proposed
  - ▬▬▬ Bike\_Trail\_Exist
  - ▬▬▬ Bike\_Trail\_Proposed
  - ▬▬▬ Facilities\_Outside\_WP
  - Trailheads\_Exist

- ### Jurisdictional Boundaries
- Eatonville
  - Maitland
  - Orlando
  - Winter Park
  - Orange County
  - Seminole County

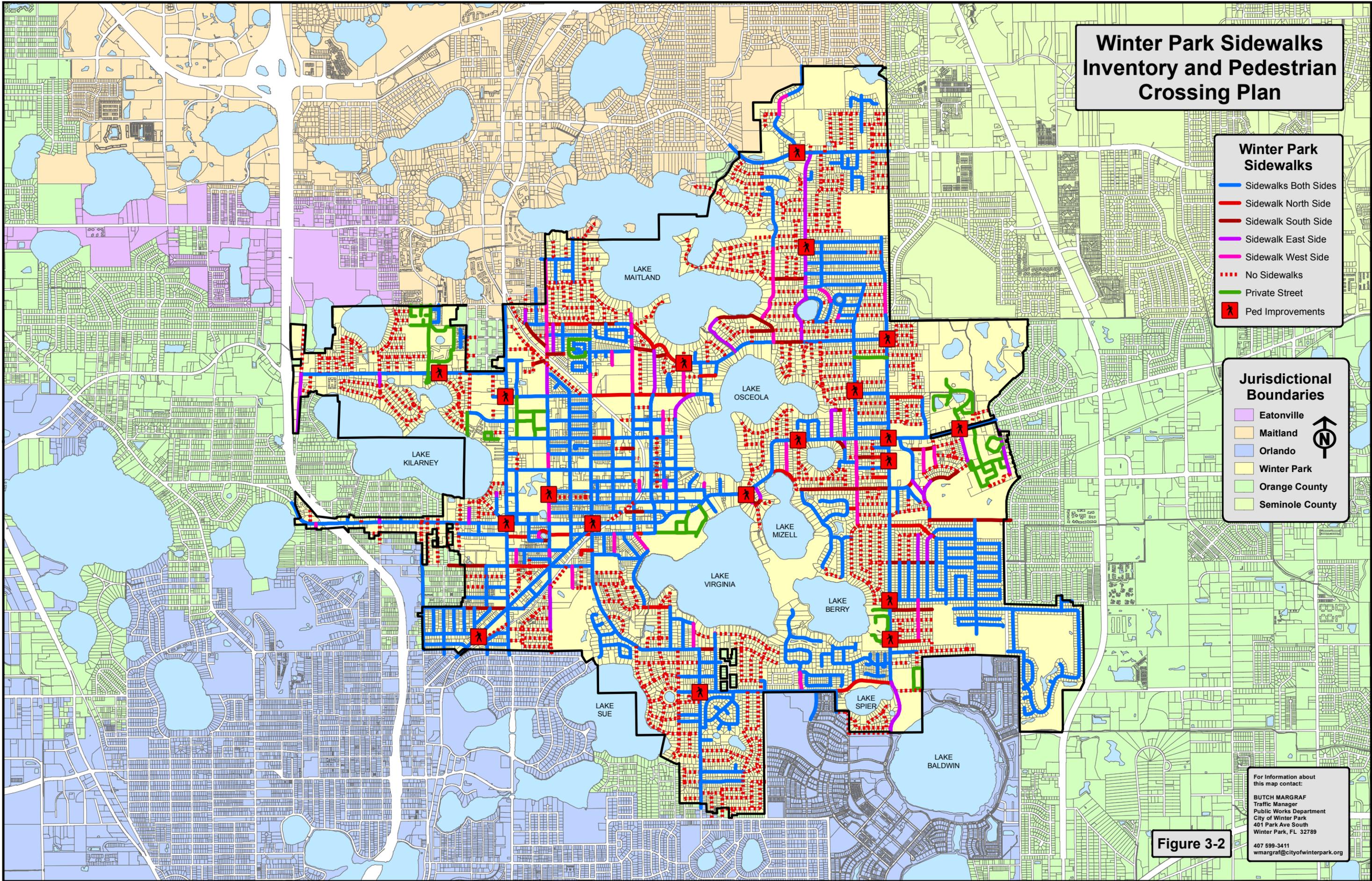
- ### Project Locations
- Bike Projects



For information about this map contact:  
**BUTCH MARGRAF**  
 Traffic Manager  
 Public Works Department  
 City of Winter Park  
 401 Park Ave South  
 Winter Park, FL 32789  
 407 599-3411  
 wmargraf@cityofwinterpark.org

Figure 3-1

# Winter Park Sidewalks Inventory and Pedestrian Crossing Plan



### Winter Park Sidewalks

- Sidewalks Both Sides
- Sidewalk North Side
- Sidewalk South Side
- Sidewalk East Side
- Sidewalk West Side
- - - No Sidewalks
- Private Street
- Ped Improvements

### Jurisdictional Boundaries

- Eatonville
- Maitland
- Orlando
- Winter Park
- Orange County
- Seminole County

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**Figure 3-2**

## **Sidewalks Inventory Statistics, Estimated Costs, and Road Statistics**

The City's adopted Comprehensive Plan Transportation Element Policies 2-1.8 and 2-1.9 describe and prioritize where sidewalks are required within the City.

The City currently has a 156 mile inventory of existing sidewalks as the following:

138 total miles of existing sidewalks on 69 miles of roads with sidewalks on both sides

18 total miles of existing sidewalks on roads with sidewalks on only one side

156 total miles of existing sidewalks

56 total miles of roads with no sidewalks

56 total miles of sidewalks are proposed on at least one side of the roads (295,680 LF)

\$5,322,240 estimated cost of new sidewalks at \$18 per LF  
(cost includes placed concrete and sod restoration)

143 Total Centerline Miles of Roads (69 mi +18 mi +56 mi)

133 miles of City roads

9 miles of FDOT roads

1 mile of County roads

143 total centerline miles of roads

## **Pedestrian Element**

Pedestrian travel is the real measure of the accessibility of the transportation system. Walking is the original mode of travel and is essential to all other modes whether one is walking from a parked car to the front door of a business or from a transit stop to home. The pedestrian portion of every trip helps determine the enjoyment, safety, and convenience of that trip. The pedestrian system provides the connections between different modes of travel and is a critical element in supporting the transit system. The lack of a pedestrian system is an obstacle to “active living.”

Encouraging pedestrian travel includes the following:

- \* Providing a continuous network so that pedestrians are not stranded short of their destination or forced into difficult or potentially dangerous situations.
- \* Ensuring a safe walking environment through adequate maintenance, vegetation trimming, and lighting.
- \* Creating a pedestrian-oriented environment through high-quality urban design and pedestrian amenities.
- \* Providing routine education on the rights and responsibilities of pedestrians, bicyclists, and vehicle drivers.

The PBCP pedestrian element addresses key improvements needed to complete the missing links connecting popular destinations and providing linkages between home, shopping, work, schools, parks, and transit. In many areas, these pedestrian connections will provide a pedestrian environment similar to the downtown. In other areas, the pedestrian connections are strategic, providing pedestrian linkages between activity areas and transit. Proposed pedestrian improvements include signalized crossings, enhanced signed pedestrian crossings, and an additional 56 miles of new sidewalks.

## **Pedestrian Policies**

Because walking is the cornerstone of all travel, the PBCP seeks to provide a high-quality pedestrian environment as the foundation for all other modes of transportation.

The City’s standard for pedestrian mobility and accessibility is the ability of a wheelchair user to move safely and conveniently through the transportation system.

A high-quality pedestrian environment includes the ability to travel safely and conveniently along the street and to have reasonable crossing opportunities; to travel through a comfortable and interesting environment; and to have appropriate pedestrian amenities such as benches, shade and water fountains.

## **Bicycle Element**

Cycling is a symbol of the healthy and active lifestyle in Winter Park. With growing public health concerns about obesity and air quality, cycling remains one of the most effective modes of transportation to promote health and improve air quality. Further, travel by bicycle is an inexpensive alternative to travel by car, especially with the increasing gasoline costs, and bicycles can easily and efficiently serve short to medium distance trips for many purposes.

The ability to travel by bike is based on developing a continuous network of streets that allow safe and convenient travel by all modes throughout the city including bicycles. A good bicycle plan also recognizes that cyclists range from the experienced commuter who is comfortable in traffic to children who cannot safely use a busy street. Consequently, the City must encourage a system of off-street multi-use paths as an option to the street system.

The long range bicycle network for the city is comprehensive and will provide on- and off-street connections throughout the city. With the completion of this network, an additional 30 miles of bicycle routes, lanes, and multi-use paths will be added. These facilities will provide safe connections and opportunities for bicycle travel throughout the city for all levels of riders.

## **Bicycle Policies**

The City will complete a system of primary and secondary bicycle corridors to provide bicycle access to all major destinations and all parts of the community.

The City will coordinate with MetroPlan Orlando, Orange County, neighboring communities, the City Parks and Recreation Department, and other government entities and plans to ensure that city and county projects connect with and/or help to complete the corridor network.

The City will work with property owners, developers, the Orange County School District (OCPS), and the City Parks and Recreation Department to ensure that commercial, public, and mixed-use and multi-unit residential sites provide direct, safe and convenient internal bicycle circulation from external connections to areas near building entrances and other on-site destinations.

The City will combine education and enforcement efforts to help instill safe and courteous use of the shared public roadway, with a focus on better educating students on how to properly share the road with bicyclists, pedestrians and users of transit.

## **Pedestrian and Bicycle Projects**

Similar to the proposed traffic improvement list, the list of bicycle and pedestrian improvements is a starting point and a snapshot in the improvement process. The proposed projects are listed in Table 3-1 PROPOSED PEDESTRIAN BICYCLE PROJECTS on the following pages. Funding for the proposed projects is anticipated from various sources including future General Fund allocations, state and federal funding through MetroPlan and/or earmarks, local grants, and CRA.

Recent accomplishments in the process of improving mobility are listed in Table 3-2 COMPLETED PEDESTRIAN BICYCLE PROJECTS on the following pages. Funding for these completed projects came from various sources including the City's General Fund, FDOT, CRA Funds and Grants.

## City of Winter Park Pedestrian and Bicycle Circulation Plan FY 2010

Figure 3-1

PROPOSED PEDESTRIAN BICYCLE PROJECTS							
	Project Name	From	To	Description of Improvement	Estimated Cost	Staff Priority Rank	Funding Source
1	Lake Baldwin Trail Connection	Fleet People's Park		construct 12 feet wide path through Fleet People's Park connecting the Lake Baldwin Trail	102,000	1	American Recovery and Reinvestment Act (ARRA)
2	St Andrews Trail	Aloma Ave		pipe the drainage ditch along St Andrews Blvd and build 12 feet wide bike trail on the ground surface	2,000,000	2	unfunded/seeking grants
3	Ward Park Trail	Perth Lane	Cady Way Trail	construct 12 feet wide bike trail thru Ward Park	100,000	3	unfunded/seeking grants
4	Orlando Ave Bike Lanes	Fairbanks Ave	Gay Road	relocate curb line at Fairbanks, stripe SB bike lane		4	unfunded/seeking grants
5	Virginia Drive Sidewalk Connection	at bollards		construct concrete sidewalk between bollards	500	5	unfunded/seeking grants
6	Preserve Point Virginia Drive Sidewalk Connection	Preserve Point Drive	Virginia Drive	construct concrete driveway apron	1,000	6	unfunded/seeking grants
7	Palmer Ave Park Ave Bike Route	Lakemont Ave	Denning Drive	sign bike route	3,000	7	unfunded/seeking grants
8	Camelia Ave Bike Route	Orlando Ave	Denning Drive	sign bike route	2,700	8	unfunded/seeking grants
9	Interlachen Ave Rollins College Bike Route	Palmer Ave	Minnesota Ave	sign bike route	6,900	9	unfunded/seeking grants
10	Mizell Ave Bike Route	Dundee Drive	Phelps Ave	sign bike route	2,100	10	unfunded/seeking grants
11	New York Ave Bike Route	Park Ave	Pennsylvania Ave	sign bike route	3,000	11	unfunded/seeking grants
12	Temple Drive Phelps Ave Bike Route	Howell Branch Rd	Cady Way Trail	sign bike route	8,400	12	unfunded/seeking grants
13	Virginia Drive Bike Route	Glenridge Way	Minnesota Ave	sign bike route	8,400	13	unfunded/seeking grants
14	Webster Ave Bike Route	Denning Drive	Georgia Ave	sign bike route	2,400	14	unfunded/seeking grants
15	Interlachen Ave Sidewalk	Winter Park CC	Swoope Ave	construct 5 feet wide sidewalk	7,200	15	unfunded/seeking grants
16	Howard Drive Bike Route	Glenridge Way	Winter Park Rd	sign bike route	3,000	16	unfunded/seeking grants
17	Glenridge Way East Bike Lanes	Lakemont Ave	city limits east	reconfigure striping for bike lanes		17	unfunded/seeking grants
18	Barnum Ave Sidewalk	Denning Drive	Minnesota Ave	construct 5 feet wide sidewalk	14,760	18	unfunded/seeking grants
19	Howell Branch Rd Bike Lanes	Seminole Cty Line	city limit west	reconfigure striping for bike lanes		19	unfunded/seeking grants
20	Pedestrian Crossing Temple Drive at Whitesell Drive	Temple Drive	Whitesell Drive	install signs and pavement markings for pedestrian crossing	1,500	20	unfunded/seeking grants
21	Pedestrian Crossing Lee Road at 1700 block	Lee Road	1700 block	install signs and pavement markings for pedestrian crossing	25,000	21	unfunded/seeking grants
22	Signalized Pedestrian Crossing	Lakemont Ave	Goodrich Ave	construct signalized pedestrian crossing on Lakemont Ave near Goodrich Ave	40,000	22	unfunded/seeking grants
23	Via Del Mar Venetian Way Bike Route	Temple Drive	Howell Branch Creek	sign bike route	1,800	23	unfunded/seeking grants
24	N Park Ave Sidewalk	Green Cove Rd	Pennsylvania Ave	construct 5 feet wide sidewalk	13,500	24	unfunded/seeking grants
25	Glenridge Way Bike Lanes	Laurel Road	Winter Park Rd	widen brick section of Glenridge Way for bike lanes	50,000	25	unfunded/seeking grants
26	Lake Knowles Walking Trail	Lake Knowles		construct 8' wide walking path and boardwalk	50,000	26	unfunded/seeking grants
27	Webster Ave Bike Lanes	Orlando Ave	Denning Drive	reconfigure striping for bike lanes	15,000	27	unfunded/seeking grants
28	Reduce Henkel Circle at Osceola Ave Roadway Width	Osceola Ave	Henkel Circle	reduce Henkel Circle width at Osceola Ave	50,000	28	unfunded/seeking grants
29	Reduce Old England Ave at Palmer Ave Roadway Width	Palmer Ave	Old England Ave	reduce Old England Ave width at Palmer Ave	50,000	29	unfunded/seeking grants
30	Mayflower Trail	Aloma Ave	Palmer Ave	construct multiuse trail	190,000	30	unfunded/seeking grants
31	Executive Drive Multiuse Trail	Gay Rd	Lee Rd	construct 8' wide feet wide sidewalk	36,000	31	unfunded/seeking grants
32	Glenridge Way at Lakemont Ave Bike Lane Widening	Lakemont Ave	Glenridge Way	widen existing bike lanes	20,000	32	unfunded/seeking grants
33	Pedestrian Bicycle Bridge Orlando Ave	Orlando Ave	near railroad bridge	construct pedestrian bicycle bridge	5,000,000	33	unfunded/seeking grants
34	Mayflower Trail Pedestrian Bicycle Connection	Palmer Ave	east end of Palmer Ave	construct 8' wide multiuse path from east Palmer Ave to Mayflower Trail	10,000	34	unfunded/seeking grants
35	Lakemont Ave Bike Lanes	Glenridge Way	Baldwin Park	widen Lakemont Ave for bike lanes	40,000	35	unfunded/seeking grants
36	Morse Blvd Bike Route	Orlando Ave	New York Ave	sign bike route	1,800	36	unfunded/seeking grants

37	Palmer Ave Sidewalk	Temple Drive	Alabama Drive	construct sidewalk north side of Palmer	15,300	37	unfunded/seeking grants
38	Signalized Pedestrian Crossing	Aloma Ave	Sylvan Blvd	construct signalized pedestrian crossing on Aloma Ave near Sylvan Blvd	150,000	38	unfunded/seeking grants
39	Signalized Pedestrian Crossing	Denning Drive	New England Ave	construct signalized pedestrian crossing on Denning Drive near New England Ave	45,000	39	unfunded/seeking grants
40	Signalized Pedestrian Crossing	Phelps Ave	Lakehurst Ave	construct signalized pedestrian crossing on Phelps Ave near Lakehurst Ave	35,000	40	unfunded/seeking grants
41	Signalized Pedestrian Crossing	Howell Branch Rd	Temple Trail	construct signalized pedestrian crossing on Howell Branch Road at Temple Trail	50,000	41	Safe Routes To School Grant
42	Minnesota Ave Bike Facilities	Orlando Ave	Formosa Ave	widen road for bike facilities	500,000	42	unfunded/seeking grants
43	Minnesota Ave Bike route	Formosa Ave	Overspin/Fairbanks	sign bike route	2,000	43	unfunded/seeking grants
44	Minnesota Ave Bike Facilities	CSX Tracks	Orlando Ave	widen road for bike lanes	500,000	44	unfunded/seeking grants
45	Berkshire Ave Bike Route	Orange Ave	Clay Street	sign bike route	600	45	unfunded/seeking grants
46	CSX Right of Way Bike Trail	Denning Drive	Orlando Ave	construct bike path along CSX right of way	100,000	46	unfunded/seeking grants
47	Temple Trail Bike Route	Howell Branch Rd	city limit north	sign bike route	600	47	unfunded/seeking grants
48	Sunnyside Drive Bike Route	Park Ave	Juanita Rael	sign bike route	1,200	48	unfunded/seeking grants
49	Winter Park Road Bike Route	Corrine Drive	Glenridge Way	sign bike route		49	unfunded/seeking grants
50	Via Tuscany Alabama Drive Bike Route	Via Del Mar	Palmer Ave	sign bike route	1,800	50	unfunded/seeking grants
51	Pedestrian Crossing Lakemont Ave near Winter Park Towers south Driveway	Lakemont Ave	Winter Park Towers south Drwy	construct median refuge island and install signs and pavement markings for pedestrian crosswalk	10,000	51	unfunded/seeking grants
52	Minnesota Ave Bike Facilities	Orlando Ave	Overspin Ave	Construct bike lanes and bike route on Minnesota Ave as a parallel and alternate route for Fairbanks	500,000	52	unfunded/seeking grants
53	Denning Drive Bike Lanes	north RR crossing	Orange Ave	modify lane widths to stripe bike lanes	1,000,000	53	unfunded/seeking grants
54	Lakemont Ave Bike Lanes	Edwin Blvd	Pine Ave	modify lane widths to stripe bike lanes	750,000	54	unfunded/seeking grants

Sidewalks Winter Park Rd  
8 feet wide sidewalk Pennsylvania corridor  
added sidewalk to Perth Lane connecting neighborhood with child care

## Proposed Pedestrian and Bicycle Facilities Improvements

The following items are descriptions in more detail of the projects listed in the Proposed Pedestrian Bicycle Projects Table 3-1.

1. **Lake Baldwin Trail Connection** – Construct 12 feet wide path through the perimeter of Fleet People’s Park connecting the existing ends of the Lake Baldwin Trail and completing the 2.4 mile trail around Lake Baldwin.
2. **St Andrews Trail** – Construct storm pipe and fill the St Andrews ditch south of Aloma Ave to Ward Park. Construct 12 feet wide meandering multiuse trail over the filled ditch from Aloma Ave to Ward Park and connect it to the Cady Way Trail.
3. **Ward Park Trail** - Construct 12 feet wide asphalt path through Ward Park connecting the Cady Way Trail to Perth Lane.
4. **Orlando Ave Bike Lanes** – Widen southbound right turn lane at Fairbanks Ave. Stripe bike lane from Gay Road to Fairbanks Ave southbound.
5. **Sidewalk Connection** – Construct a paved path on Virginia Drive at the divider between the bollards to connect the two Virginia Drive segments.
6. **Sidewalk Connection** – Construct a driveway apron in the grass parkway to complete the connection of Preserve Point Drive of Windsong to Virginia Drive of Timberlane Shores.
7. **Palmer Ave Park Ave Bike Route** – Sign Palmer Ave from the east side of Lakemont Ave at the Mayflower Trail connection to Park Ave then west to Denning Drive as a bike route.
8. **Camellia Ave Bike Route** – Sign Camellia Ave from 1792 to Denning Drive including Denning Drive from Camellia Ave to the Garden Drive/Mead Gardens entrance.
9. **Interlachen Ave Rollins College Bike Route** – Sign Old England Ave southbound from Palmer Ave to Interlachen Ave to New England Ave to Chase Ave to Ollie Ave then thru streets of Rollins College to Holt Ave to Pennsylvania Ave then south to Minnesota Ave as a bike route. Sign Georgia Ave northbound from Interlachen Ave to connect northbound to Palmer Ave as a bike route.
10. **Mizell Ave Bike Route** – Sign Perth Lane from Dundee Drive north to Mizell Ave then west to Osceola Ave to Brewer Ave as a bike route.
11. **New York Ave Bike Route** – Sign New York Ave from Park Ave south to Holt Ave to French Ave to Lakeview Ave to Vitoria Ave to Huntington Ave to Pennsylvania Ave as a bike route.

12. **Temple Drive Phelps Ave Bike Route** – Sign Temple Drive from Howell Branch Road south to Chestnut Ave east to Phelps Ave to south to Balmoral Road south to Whitehall Drive east to Greene Drive south to Summerfield Road and east to Cady Way Trail as a bike route.
13. **Virginia Drive Bike Route** – Sign Preserve Point Drive from Glenridge Way north to the pedestrian bicycle connection to Timberlane Shores subdivision at Virginia Drive, west to Laurel Road, south to Lake Sue Ave, west to Forest Ave, north to Virginia Drive, west to Highland Road, north to Stirling Ave, west to Richmond Road, north to Melrose Ave, west to Pennsylvania Ave, south to Melrose Ave, west to Azalea Lane, and north to Minnesota Ave as a bike route. Sign Timberlane Drive from Glenridge Way and north to Blue Ridge Road north to Virginia Drive as a bike route.
14. **Webster Ave Bike Route** – Sign Webster Ave from Denning Drive east to Georgia Ave as bike route.
15. **Interlachen Ave Sidewalk** - Construct sidewalk on Interlachen Ave from the Winter Park Country Club parking lot south to Swoope Ave on the west side of Interlachen Ave. This segment of sidewalk connects sidewalks both north and south on Interlachen Ave.
16. **Howard Drive Bike Route** – Sign Howard Drive from Glenridge Way south to Woodside Ave and west to Winter Park Road as a bike route.
17. **Glenridge Way East Bike Lanes** – Narrow Glenridge Way from Lakemont Ave east to the City limits to two lanes with bike lanes. The connecting roadways from Baldwin Park and the Veterans Administration Hospital are 2 lane roads; Lakemont Avenue is a 2 lane road, 4 lanes for vehicles are not necessary.
18. **Barnum Ave Sidewalk** - Construct 5 feet wide sidewalk on Barnum Ave from Denning Drive to Minnesota Ave on the east side of the road.
19. **Howell Branch Rd Bike Lanes** – Restripe Howell Branch Road in Winter Park from the Seminole county line west to the Maitland city limits with bike lanes. Coordinate with Maitland and Seminole County to stripe bike lanes in their jurisdictions.
20. **Temple Drive Pedestrian Crossing** – Construct an emphasized crosswalk, pavement markings and signs, across Temple Drive at Whitesell Drive.
21. **Lee Road Pedestrian Crossing** - Construct an emphasized crosswalk, pavement markings and signs, at the 1700 block of Lee Road. Coordinate with FDOT.
22. **Lakemont Ave Signalized Pedestrian Crossing** - Construct an actuated pedestrian signal on Lakemont Ave near Goodrich Ave at the existing pedestrian crossing. This crossing serves Winter Park Hospital and the other medical facilities near Lakemont Avenue.

23. **Via Del Mar Venetian Way Bike Route** – Sign Via Del Mar from Temple Drive west to Via Tuscany, Via Tuscany north and west to Venetian Way, and Venetian Way south and west to Howell Branch Creek as bike route. This route connects with a Maitland bicycle route.
24. **N Park Ave Sidewalk** – Construct a 5 feet wide sidewalk on N Park Ave from Green Cove Road to Pennsylvania Ave on the north side of the road. This segment of sidewalk connects sidewalks both east and west on Park Ave.
25. **Glenridge Way Bike Lanes** – Widen the brick section of Glenridge Way from Laurel Road to Winter Park Road to complete the Glenridge Way bike lanes.
26. **Lake Knowles Walking Trail** – Construct a walking path around Lake Knowles. This will include a boardwalk on the south side of Lake Knowles along Elm Ave where the shoreline is inadequate for an existing surface path.
27. **Webster Ave Bike Lanes** – Reconfigure striping of Webster Ave from Orlando Ave east to Denning Drive for 2 bike lanes, 2 thru lanes, and a left turn median lane. This should be completed with the Orlando Ave Master Plan construction.
28. **Henkel Circle at Fairbanks Ave Pedestrian Improvement** - Reconstruct the exit opening of Henkel Circle at Fairbanks Ave reducing the width. This project will shorten the side street crossing distance for pedestrians on Osceola Ave. The extra wide opening is not necessary for safe egress from Henkel Circle.
29. **Old England Ave at Palmer Ave Pedestrian Improvement** - Reconstruct the southeast corner curb and narrow the side street opening of Old England Ave at Palmer Ave. This project will shorten the crossing distance for pedestrians on Palmer Ave.
30. **Mayflower Trail** – Construct a multiuse trail from Aloma Ave north through the Crealde School of Art and around the Mayflower retirement village. Coordinate with both Crealde and the Mayflower for the preferred route. This trail will connect Lakemont Ave near Lakemont Elementary school and the YMCA to Aloma Ave and the St Andrews Trail and to the Cady Way Trail.
31. **Executive Drive Multiuse Sidewalk** – Construct 8 feet wide multiuse sidewalk on Executive Drive from Lee Road to Gay Road. There are currently no sidewalks on Executive Drive. This sidewalk will provide pedestrian and bicycle connectivity from Gay Road to Lee Road as a 1200 linear feet recreation way.
32. **Glenridge Way at Lakemont Ave Bike Lanes** – Widen Glenridge Way near Lakemont Ave to increase width of the existing bike lanes to 4 feet. Current bike lanes are less than 4 feet wide at the northwest corner of the intersection and westbound along Glenridge Way.
33. **Pedestrian and Bicycle Bridge** – Construct a pedestrian bicycle bridge over Orlando Ave adjacent to the railroad bridge to provide a safe pedestrian bicycle connection to from the Winter Park pedestrian and bicycle system to Maitland’s.

34. **Pedestrian Bicycle Connection** – Construct path from Palmer Ave east to the Mayflower Trail.
35. **Lakemont Ave Bike Lanes** – Widen Lakemont Ave south of Glenridge Way to add bike lanes. These bike lanes will connect to the existing bike lanes in Baldwin Park.
36. **Morse Blvd Bike Route** – Sign Morse Blvd from Orlando Ave east to New York Ave as a bike route.
37. **Palmer Ave Sidewalk** - Construct sidewalk on Palmer Ave from Temple Drive to the east leg of Alabama Drive. There are two properties in this block that have 36 inch and greater oak trees prohibiting the construction of a sidewalk.
38. **Signalized Pedestrian Crossing on Aloma Ave** – Construct actuated pedestrian signals on Aloma Ave near Sylvan Blvd. Coordinate with the FDOT.
39. **Denning Drive Signalized Pedestrian Crossing** - Construct actuated pedestrian signals on Denning Drive near New England Ave. This signalized crossing will serve Lake Island Park providing a safe pedestrian connection from the neighborhoods east of Denning Drive.
40. **Phelps Ave Signalized Pedestrian Crossing** - Construct actuated pedestrian signals on Phelps Ave near Lakehurst Ave. This signalized crossing will serve Lakemont Elementary school and neighborhood pedestrians to cross Phelps Ave.
41. **Howell Branch Road Signalized Pedestrian Crossing** – Construct actuated pedestrian signals at the existing Howell Branch Road and Temple Trail intersection east leg. This project has been approved and will be funded through a Safe Routes to School program grant in the year 2011. Included with the pedestrian signals are enhanced pedestrian sidewalk crossings at 3 driveways along the north side of Howell Branch Road.
42. **Fairbanks Avenue Roadway Improvements Project** Alternate Bicycle Facility – Construct a **Sidepath** on the south side of **Minnesota Ave** from Orlando Ave west to Formosa Ave. Construct a **Bike Route** on Minnesota Ave from Formosa Ave west to Overspin Drive. Construct **Bike Routes** between Minnesota Ave and Fairbanks Ave on Nicolet Ave, Jackson Ave, Harold Ave Cherry Street, Clay Street, Formosa Ave, and Overspin Ave.
43. **Minnesota Ave Bike Route** – Sign Minnesota Ave from the Formosa Ave west to Overspin Ave/Fairbanks Ave.
44. **Minnesota Ave Bike Facilities** – Construct bike lanes on Minnesota Ave from the CSX railroad tracks west to Orange Ave.
45. **Berkshire Ave Bike Route** – Sign Berkshire Ave from Orange Ave west to Clay Street as a bike route.

46. **CSX ROW Bike Trail** – Construct bike trail along CSX right of way connecting Denning Drive to the Orlando Ave **Pedestrian and Bicycle Bridge**.

47. **Temple Trail Bike Route** – Sign Temple Trail from Howell Branch Road north into Maitland as a bike route.

48. **Sunnyside Drive Bike Route** – Sign Denning Drive from Solana Ave north to Park Ave and Sunnyside Drive north to Magnolia Ave and west into Maitland as a bike route.

49. **Winter Park Road Bike Route** – Sign Winter Park Road from Corrine Drive to Glenridge Way as a bike route.

50. **Via Tuscany Alabama Bike Route** – Sign Via Tuscany from Via Del Mar south to Alabama Drive and west to Palmer Ave as a bike route.

51. **Pedestrian Crossing** – Construct an emphasized crosswalk, pavement markings and signs, across Lakemont Ave near the Winter Park Towers driveway.

52. **Denning Drive Bike Lanes** - Reconstruct the Denning Drive traffic lanes from the north Denning Drive railroad crossing south to Orange Avenue. This plan includes 2 bike lanes, 2 thru travel lanes, left turn lanes at the intersections, and planted medians. This section of Denning Drive has excess vehicle capacity and it can maintain a high level of service with the left turn lanes.

COMPLETED PEDESTRIAN BICYCLE PROJECTS										
	Project Name	From	To	Description of Improvement	Comp	Type	Estimated Cost	Staff Priority Rank	Commission Rank	Funding Source
1	Bike Racks	citywide		installed bike racks in city parks and at city facilities	Y	B	38,000			WPHF/FDOT
2	Convert Ped Signals to Countdown	citywide		Convert all existing Ped signals to countdown	Y	P	85,000			FDOT/City funds
3	Install Crosswalk	Palmer Ave	Temple Drive	repave Palmer Ave, add emphasized crosswalk, add ADA ramps	Y	P	1,000			City Paving Program
4	Install Crosswalk	Palmer Ave	Seminole Drive	repave Palmer Ave, add emphasized crosswalk, add ADA ramps	Y	P	1,000			City Paving Program
5	Install Ped Crossing signal	Howell Branch Rd	Via Tuscany	added signalized ped signal for new park	Y	P	3,500			
6	Orange Ave Streetscape	Fairbanks Ave	Orlando Ave	added signalized ped crossing near Capen Ave	Y	P	33,960			CRA/Assessments
7	Orange Ave Streetscape	Fairbanks Ave	Orlando Ave	added signalized ped crossing at Cypress Ave	Y	P	37,335			CRA/Assessments
8	Const Sidewalk on Palmer McKean gap	Alabama Drive	McKean Circle W	const sidewalk in critical sidewalk gap	Y	P	15,000			City Sidewalk Program

# Pedestrian and Bicycle Circulation Plan

## Appendix

- A. Winter Park Standards for Pedestrian Facilities
- B. Winter Park Standards for Bicycle Facilities
- C. Winter Park Bicycle Circulation Plan 1995
- D. Bicycle Parking Ordinance

**Standards for Pedestrian Facilities**

**City of Winter Park**

**Revised 2/14/2006**

Pedestrian facilities shall adhere to the most recent adopted version of the Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Street and Highways (“green book”, FDOT,), Chapter 8.

Sidewalk Configuration

Sidewalk shall be clear of vegetation with no overhanging vegetation below a height of 8 feet in the sidewalk corridor. Shrubbery shall not infringe on sidewalks, in accordance with City Regulations. Irrigation shall not cross the sidewalks and must be designed to irrigate only on the side of the sidewalk where the spray heads are located. Irrigation adjacent to sidewalks shall happen only between hours of midnight and 6 a.m.

Contractors shall keep adjacent sidewalks clean and clear if at all feasible during construction.

During new building construction or major renovation, the owner or developer shall upgrade or build sidewalks to standards on adjacent right-of-way.

A minimum of three (3) feet of green space separating the sidewalk from the roadway is preferred along residential streets; five (5) feet separation along arterials and collectors. Sidewalks shall be installed on both sides of the streets with a minimum width, where feasible, of 8 feet along arterial and collector roads and 5 feet along residential streets. Where 8-foot width is not feasible, a minimum clear sidewalk walking space, free of obstructions, must be 5 feet on arterials and collectors and 4 feet on residential streets. All sidewalks within 1/4 mile of schools shall be 8 feet wide.

Driveway curb cuts intersecting sidewalks shall have a maximum sidewalk-intersecting slope of 12:1, as measured along the direction of the sidewalk. Where feasible, curb cuts should not extend into the sidewalk. That is, steeper curb cuts should be used where feasible to prevent the curb cut from extending into the sidewalk.

Two curb cuts per corner should be used where feasible to accommodate mobility assistance and strollers. Intersection corner radii should not exceed 15 feet except at locations with significant truck or bus turning movements.

Pedestrian Crossings

Pedestrian crossings are to be designed based upon roadway configuration and use and existing or projected pedestrian use, with special considerations for children and school routes.

Depending on these factors, crossings shall be designed to provide pedestrian safety and comfort as:

- 1) Cross-walk markings and stop bars
- 2) Cross-walk markings, stop bars and signage
- 3) Table-top crossings
- 4) Visual crossing (table top or cross bars) with flashing signage
- 5) Visual crossing with pedestrian crossing signal

All pedestrian crossings shall include sufficient lighting at the crossing point and all marked crosswalks shall have a minimum crosswalk width of 12 feet. All crosswalks at signalized intersections shall be marked. The decision to mark a crosswalk at an unsignalized location should be deferred to FHWA's Recommendations for Installing Marked Crosswalks and Other Needed Pedestrian Improvements at Uncontrolled Locations (refer to attached Table 1 from Safety Effects of Marked vs. Unmarked Crosswalks at Uncontrolled Locations: Executive Summary and Recommendation Guidelines, FWHA, March 2002).

Pedestrian crossings may be designated mid-block. Midblock crossings shall be well lit and may include Yield to Pedestrian paddles (R1-6, MUTCD) on two-lane roadways. Advance yield line shall be provided at all midblock crossing locations 30 feet back from the crosswalk, and may be supplemented by Yield Here to Pedestrians signs (R1-5 or R1-5a, MUTCD) at the advance yield line.

Stop bars at signalized intersections should be placed a minimum of 10 feet back from crosswalks to discourage motorists from encroaching into crosswalks.

All four-lane roads shall have pedestrian refuges in the center of the roadway at cross walks, where feasible. Pedestrian refuges shall include visual cues to protect pedestrians, such as landscaping or signage. For example, four-lane sections of Morse Boulevard need mid-block pedestrian crossings.

Cross-walk distance shall be minimized using design features such as bulb-outs at intersections and pedestrian refuges in the center of streets. These distances should be the minimum as required for emergency vehicle and necessary maintenance vehicle access. Commercial truck traffic may be restricted by these features, and alternative routes for commercial traffic may be designated. Where on-street parking exists, curb bulbouts shall be used at intersections.

#### Pedestrian Crossing Signals

Crossing signals are to provide these features:

- 1) Activated "No Turn On Red/Yield to Peds" signs for vehicle traffic at intersections, here feasible
- 2) Countdown timers for walk signals
- 3) Beepers for visually impaired pedestrians

- 4) Push buttons that are designed so that the correct crossing button is obvious, conveniently placed, and easy to push for physically impaired (height, button shape).
- 5) An indication to pedestrians as to whether the walk push button has been activated.
- 6) All signals in the core Central Business District with high pedestrian activity shall be set to recall pedestrian signal phasing, with no push button activation required.

### Lighting

All arterial and collector pedestrian crossings and all bus stops are to have adequate lighting so that drivers can see pedestrians in or near crosswalks. Special consideration must be given to make children visible.

### Drivers Yield to Pedestrians

The Winter Park Police Department will enforce the Florida statute designating that motorists yield to pedestrians. This enforcement will modify motorists' behavior to make Winter Park walkable with safety and comfort.

**Standards for Bicycle Facilities**

**City of Winter Park**

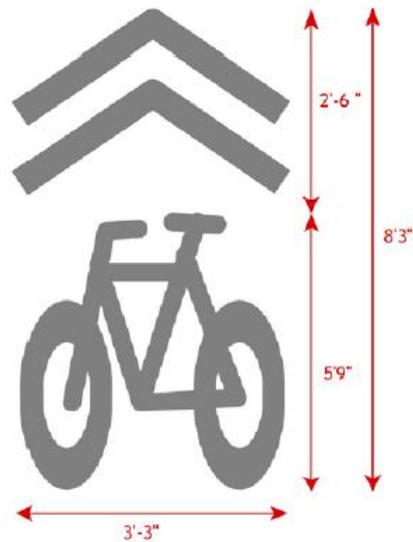
**Revised 2/14/2006**

Bicycle facilities shall adhere to the most recent adopted version of the Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Street and Highways (“green book”, FDOT), Chapter 9.

**Bicycle Roadway Facilities**

Roadways within the city limits shall accommodate bicycle traffic on all arterials and collector roads by:

- 1) Providing curb lanes of sufficient width to accommodate bikes and cars (14 feet) with marked bike lanes, or
- 2) Posting signage to share the roadway with bicycles.
- 3) On roadways designated as bicycle routes, but with insufficient width for a designated bicycle lane, the shared-use arrow (“sharrow”) pavement marking shall be considered for use to further designate the roadway as a bike route and to show the proper riding position within the lane.



(for more information, see <http://bicycledriving.com/bfz/arrow.htm>)

Arterial and collector roadways shall provide minimum four (4)-foot surfaces that are satisfactory for bicycle traffic, i.e. asphalt or concrete, next to curbs on both sides. Attention must be given to drainage grates, railroad crossings, and other potential hazards. Where a bike lane is adjacent to parallel parking, the minimum bike lane width shall be five (5) feet and the total width to the face of curb for the bike lane and parking stall shall be a minimum of 13 feet.

New arterial and collector roadways must provide bike lanes facilities. Existing arterial and collector roadways undergoing resurfacing or reconstruction must provide bike lane facilities where logistically and financially feasible. For example, tree canopy should not be sacrificed solely to provide bike lanes. Where bike lane facilities are not provided, alternate bikeways must be provided that are convenient, safe, and fully accommodate bicycle traffic and access that would otherwise have been available on the new or reconstructed roadways.

### Traffic Signals

Signal sensors shall detect bicycles. Pavement markings will be placed to show bicyclists where the bicycle will be detected.

### Bicycle Racks and Access

Bicycle access and bike rack parking facilities shall be provided at destination nodes such as restaurants, shops, libraries, and schools. Commercial building codes shall include bicycle access and bike rack requirements, including preferred bike rack configurations.

Bicycles shall be allowed on sidewalks except in the central business district. Where bicycles are not allowed on sidewalks, the roadways must accommodate bicycles.

### School Routes

School routes shall have sidewalk accommodations for young bicyclists. Where school routes are within the central business district, school children commuting to school by bicycle may use the sidewalks. Children riding on sidewalks shall be educated in riding safely on the sidewalks and must cross all roads as pedestrians, walking their bicycles. There are particular dangers to riding a bicycle on the sidewalk, and older children are encouraged to become educated on proper bicycling methods and to ride in the street.

# CITY OF WINTER PARK BICYCLE CIRCULATION PLAN

June, 1995

## The Purpose of the Bicycle Circulation Plan

### I. Maintain Winter Park as the Premier Urban Village in the State of Florida:

Winter Park has evolved to become one of the most livable and memorable communities in Florida. Public spaces like streets, squares, and parks were designed to be the urban setting for everyone to conduct their daily lives. Thousands of oaks were planted by prior generations for the enjoyment of current generations. Neighborhoods were designed to accommodate diverse types of people and activities. This bicycle and system will help maintain and enhance a more livable environment for ourselves and our children.

### II. Minimize Threats to Winter Park's Urban Fabric:

Over the last thirty years, Winter Park's very livable urban fabric has been slowly chipped away. Society, it seems, has locked itself into the automobile as the only means of transportation regardless of who we are, what our age, and where we are going. We must begin to provide the infrastructure to encourage other forms of transportation to become attractive in order to protect Winter Park's livable urban fabric.

### III. Develop Viable Transportation Alternatives:

Bicycle travel is becoming an important element of local transportation systems for communities throughout the Country. In Boulder Colorado, approximately 35% of all travel in the City is done by walking, bicycling, or riding transit, and the City has a goal of increasing this percentage to 50% by the year 2000. In Davis California, 25% of the population commutes to work by bicycle. Winter Park's Bicycle Circulation Plan will



facilitate bicycling as a viable transportation alternative for Winter Park residents.

### IV. Important Element of Winter Park's Community Planning Effort:

Winter Park recently initiated the "Winter Park in Perspective" planning process to rediscover the planning and architectural traditions that have shaped Winter Park. Like the "Treasured Places" workshop, where citizens identified hundreds of locations throughout the City which they wanted preserved, or enhanced, the Bicycle Circulation Plan utilized the thoughts and ideas of Winter Park residents to make a more successful system. The Winter Park's Bicycle Pedestrian Circulation Plan was developed with the participation of the following groups:

#### WINTER PARK RESIDENTS

-The residents of the City participated in a series of workshops in the spring of 1995;

#### SURROUNDING COMMUNITIES

-Representatives from the City of Orlando, the City of Maitland, and Orange County were on hand at the workshops to assist in making connections between Winter Park and their communities; and

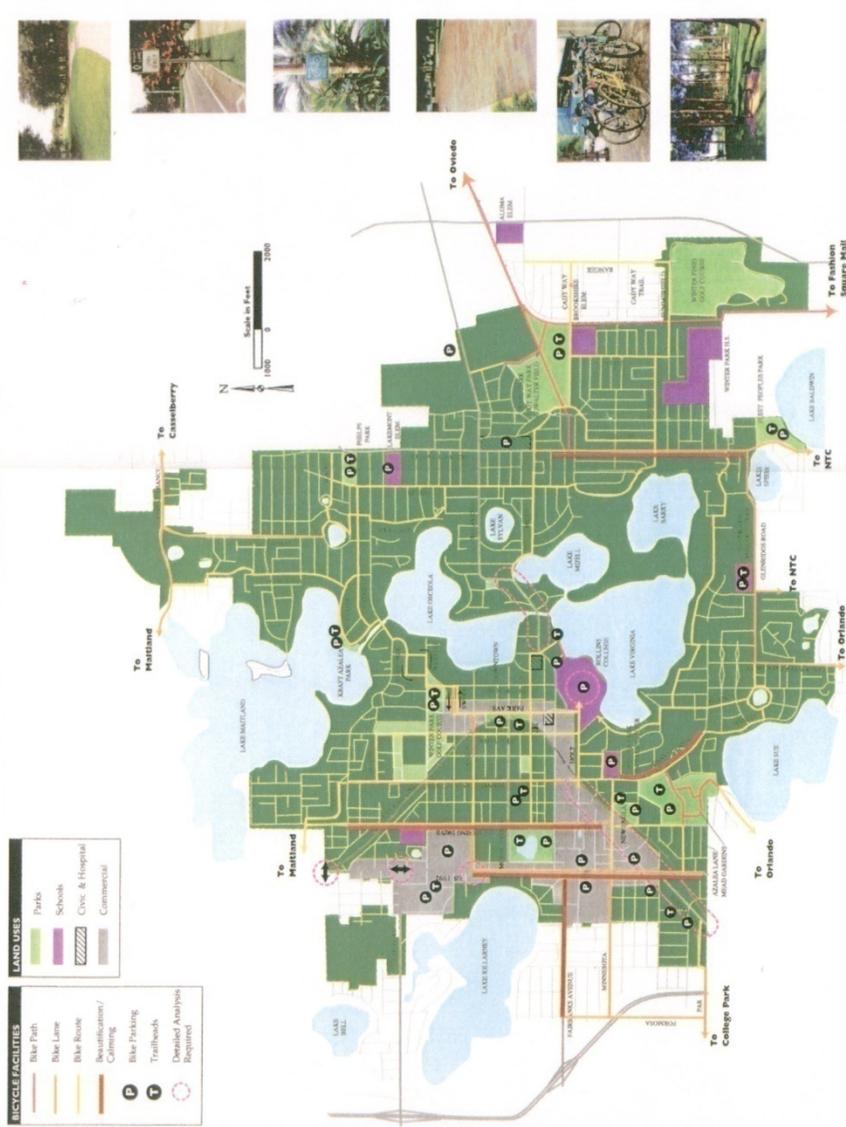
#### ROLLINS COLLEGE

-Students in the Environmental Studies Department at Rollins College developed and applied a method for determining the bicycle friendliness of roadways in Winter Park.



# Draft Plan

## City of Winter Park Bicycle Circulation Plan



### Facility Descriptions

**Bike Paths**, like the Cudy Way, are used for non-motorized travel and are physically separate from streets. All paths in Winter Park are multi-use facilities available to everyone – bicyclists, skaters, skateboarders, runners and walkers. They provide a pleasant place for recreation because they are separated from streets and conflicts with automobiles.

**Bike Lanes** are portions of streets reserved for the exclusive use of bicycles. They are identified by signs and pavement markings showing a bicycle and a diamond-shaped restricted lane symbol. Bike Lanes are typically found on arterial streets. Sidewalks are not encouraged as substitutes for bike lanes.

**Bike Routes** are streets which are well-suited for bicycling, but do not have any pavement markings. They are identified with a blue route sign. Bike routes are generally residential streets or rural roads. The majority of Winter Park's streets do not have a specific bike route designation. However all city streets are open to bicycling.

**Reactivation/Traffic Calming** would make the area more attractive, would slow down automobile traffic, and would make the quality of a trip pleasing and safe for everybody, including automobiles.

**Bike Parking** should be provided at bicycle destinations, such as schools, parks, stores, high employment concentrations, and major transit stops.

**Trailheads** are intended to be reference points of entry and exit to the Winter Park bicycle network. Trailhead facilities include information kiosks, drinking fountains, benches, tables, and related facilities.



Winter Park  
Planning  
& Community  
Development  
Department

The Circulation Plan pictured above represents the recommended bicycle facilities determined to be needed during the Winter Park Bicycle workshop. Many thanks to the volunteer efforts of numerous citizens and staff from the city of Winter Park who contributed to this plan.

## Existing Conditions - Roadway Adequacy for Bicycle Use

As part of this project, the Environmental Studies Department at Rollins College, in association with the City, developed and applied a method to determine the bicycle friendliness of Winter Park roadways. The measurement is on a scale of "A" to "F", with "A" being ideal for bicycling, and "F" being not conducive to bicycling. The results of this analysis are shown in the figure below. The majority of Winter Park local roadways are appropriate for bicycle use, although a cyclist must use a major road for some portion of a trip.



## Costs / Potential Funding Sources

A majority of the system (28 miles) can be implemented for a cost of about \$210,000 without initiating major construction projects.

In addition, a significant portion of the major construction projects are accounted for in the Ward Park to Mead Gardens Bicycle Route. Federal grant money for the route will contribute over \$1 million to the overall circulation plan.

Currently Winter Park relies on Federal grant funding to finance bicycle needs. In order to fully develop this bicycle plan, the City will need to expand its local contribution to the system. This contribution could be financed by the following alternatives:

- Continue to Utilize Federal Grant & State Grant Programs
- Utilize Transportation bond revenues for bicycle facilities
- Direct Transportation Impact fees for bike facilities;
- Creative Inclusion: on-going process (Water & Sewer, Drainage, Tree Replacement)
- Establish a Bicycle Trust Fund
- Commit City's General Fund Revenues

## Ward Park - Mead Gardens Bicycle Route

The Winter Park Bicycle Planning effort was initiated by a successful application for a federal and state grant to develop a bicycle route from the Cady Way Trail Head in Ward Park to Mead Gardens. The participants at the workshop agreed with the City that this is a high priority project. The Ward Park to Mead Gardens Route serves Brookshire Elementary, Glenridge Middle School, Winter Park Ninth Grade Center, and Winter Park High School. The proposed route also provides a needed connection between the Cady Way Trail and the proposed Dinky Line Trail, making over 14 miles of continuous bicycle facilities in the Orlando Metropolitan Area.



The total cost of the circulation plan is approximately \$3.4 million dollars, of which \$1.2 million is already funded by a Federal grant. The remaining cost of \$2.4 million is eligible for Federal grants. The total remaining cost of the system on the City could be as low as 240 thousand dollars.

<b>Bike Paths</b>		
New construction for 3.1 miles at \$385,000 per mile		\$1,193,500
<b>Bike Lanes</b>		
Reconstruction for 4.8 miles at \$325,000 per mile		\$1,560,000
Restriping for 6.4 miles at \$25,000 per mile		\$160,000
<b>Bike Routes</b>		
Sign installation for 21.5 miles at \$1,400 per mile		\$30,100
<b>Bike Parking</b>		
Install 23 racks at \$1,000 per rack		\$23,000
<b>Trailheads</b>		
Install 14 trailheads at \$30,000 each		\$420,000
<b>Sub-total</b>	<b>(35.8 miles)</b>	<b>\$3,386,600</b>
Ward Park to Mead Garden Route		- \$1,114,848
City Portion		+ \$111,484
<b>Total Cost</b>		<b>\$2,383,600</b>

**ORDINANCE NO. 2660-06**

**AN ORDINANCE OF THE CITY OF WINTER PARK, FLORIDA,  
AMENDING CHAPTER 58 "LAND DEVELOPMENT CODE"  
ARTICLE III, "ZONING REGULATIONS" SECTION 58-81 "OFF-  
STREET PARKING AND LOADING REGULATIONS" SO AS TO  
REQUIRE BICYCLE PARKING BE PROVIDED BY NEW  
DEVELOPMENTS OR SPECIFIED REDEVELOPMENTS AS  
PER THE REQUIRED USES OUTLINED HEREIN.**

NOW THEREFORE, BE IT ENACTED BY THE PEOPLE OF THE CITY OF WINTER PARK:

SECTION 1. That Chapter 58 "Land Development Code", Article III "Zoning" of the Code of Ordinances is hereby amended and modified by amending Section 58-81 "Off-street parking and loading regulations", to add the requirements for bicycle parking by new developments and redevelopments in subsection (5) to read as follows:

Section 58-81. Off-street parking and loading regulations.

(5) *Bicycle Parking.*

a. *Intent and purpose.* The purpose of these regulations is:

1. To provide for bicycle access to employment, commercial, and other transportation and travel destinations; and
2. To encourage bicycles for personal transportation as an alternative to motor vehicles.

b. *Applicability.* Bicycle parking facilities shall be provided for any new building, addition, or enlargement over 50% of an existing building, or for any change in the occupancy of any building that results in the need for additional auto parking facilities in accordance with the required bicycle parking spaces specified herein. Any existing building that adds, enlarges, or redevelops with an increase of 15-49 percent of the building square footage will be required to provide two the minimum bicycle parking spaces.

c. *Exemptions.* No bicycle parking spaces shall be required for the following uses: single-family residence, two-family residence, funeral homes, automobile sales, repair, or body shop, or car wash.

d. *Bicycle parking space requirements.* Bicycle parking spaces shall be required as follows:

- 1) Office, commercial, retail: 10% of required automobile parking;

- 2) Schools: K – 8: 1 per 5 students;
- 3) Grades 9-12, Vocational tech schools and colleges: 1 per 20 students;
- 4) Recreation facilities, libraries, museums (public and private) - 15% of percent of required automobile spaces.
- 5) Multifamily residential: 1 space per 3 units;
- 6) Hotels, motels: 1 space per 30 rooms and 1 space per 50 employees;
- 7) In all places where bicycle parking is required, a minimum of two (2) and a maximum of fifty (50) bicycle parking spaces shall be provided;
- 8) Any project incorporating a parking structure in their development will be required to provide twenty (20) percent of the mandated bicycle parking in the form of bicycle lockers on the ground level of the structure. This 20% will count towards the total number of required bicycle parking spaces;
- 9) The City Planner shall determine the bicycle parking requirement for any use not referenced above based on its resemblance to one of the uses outlined above.

e. *Location and design of facilities.* Location and design of bicycle parking shall be as follows:



*Bicycle Racks:*

Design: (each rack provides 2 bicycle parking spaces)

1. The standard rack required will be the inverted “U”.
2. Distance between verticals must be a minimum of 18 inches.
3. Height not to exceed 36 inches.
4. Minimum tube diameter of 1.9 inches.
5. All racks must be black with a powder coated finish.
6. Use of any other rack must go through an approval process by the Bicycle and Pedestrian Advisory Board for consideration.



*Bicycle Lockers:*

1. Locker dimensions: 49" height 30" width 74" length.
2. Design of bike lockers must conform to the Bicycle and Pedestrian Advisory Board list of approved locker designs which is available in the building department.

**Location:**

1. Bicycle parking facilities should be located in highly visible well-lit areas to minimize theft and vandalism.
2. Whenever possible, the racks should be placed within 50' of the building entrances where bicyclists would naturally transition to a pedestrian mode of travel. Otherwise, signage at the building entrance should direct bicyclists to rack location. If a separate employee entrance exists, bicycle racks should be located near the employee entrance as well as the patron entrance.
3. Rack placement shall not impede pedestrian or vehicular circulation, and should be harmonious with their environment both in color and design. Parking facilities should be incorporated whenever possible into building design or street furniture.
4. Required bicycle parking spaces shall be at least two (2) feet by six (6) feet per bicycle.
5. An aisle of a minimum of five (5) feet wide shall be provided behind bicycle parking facilities to allow for maneuvering.

6. All lockers and racks must be securely anchored to the ground or the building structure to prevent racks and locker removal from the location.

7. Structures requiring a user supplied locking device shall be designed to accommodate both chain and U-shaped locking devices and shall support the bicycle frame at two locations (not just the wheel).

8. Bike parking facilities within auto parking areas shall be separated by a physical barrier to protect bicycles from damage by cars, such as curbs, wheel stops, bollards or other similar features.

f. *Exceptions.*

1. Where the provision of bike parking is physically not feasible, the requirements may be waived or reduced to a feasible level by the Building Department's Plan Reviewer. The Pedestrian and Bicycle Advisory Board will review these decisions twice a year and make recommendations to said reviewer for the provision of bicycle parking spaces and the implementation of this ordinance.

2. In special bicycle parking districts, as outlined below, a fee in lieu of providing bicycle parking will be required based on the parking specifications outlined herein. This fee will be used towards placement of bicycle parking in these zones, to be designated by the City Planner.

a. Special bicycle parking districts.

Park Avenue Bicycle Parking District: The area bounded by Fairbanks Avenue to the south, Center Street to the east, New York Avenue to the west, and Swoope Ave to the north.

(Ord. No. 2501-03, § 4, 1-28-03; Ord. No. 2642-05, § 1, 8-8-05; Ord. No. 2660-06, § 1, 1-23-06)

**Section IV**

**Traffic Calming  
Plan**

## ***Section IV Traffic Calming***

### **Purpose:**

- Establish criteria in order to determine where traffic calming is appropriate.
- What type of traffic calming is appropriate?
- Process for acceptance.
- Who pays for the costs?

### **Applicability:**

This policy is applicable only to local roads as defined in Table 2-2 of the city's comprehensive plan. This table can also be found in Appendix C of this document. Additionally any road on the city's emergency response route map, Figure 4-1, is not eligible for traffic calming under this policy.

Contact the Traffic Manager within the City's Public Works Department @407-599-3233. A review of recent traffic counts will be performed to help understand the problem. If no recent counts are available (within past 2 years), the City will perform speed and volume counts using automated counters. Typically counters will be placed on your street for three (3) days, Tuesday through Thursday. The counters will collect speeds & volume of the traffic continuously throughout the duration of the 3 day count period.

### **Application Procedure:**

Any resident or group of residents desiring to install traffic calming shall prepare a written petition outlining the perceived area of concern, specific location of concern, desire traffic calming measures, along with primary contact information. Petition should be signed by as many as possible to demonstrate consensus for traffic calming.

### **Initial City Review:**

City staff will review the submitted petition and research current traffic volumes and speeds. If no recent data (within two (2) years), is available city will collect such data. City will also develop the appropriate geographic study area. The study area is defined as the residents directly affected by the installation of the traffic calming measures as outlined in the submitted petition. The study area may be enlarged to adjacent streets if there is a high probability that the implementation of traffic calming measures will move over 250 vehicles per day to an adjacent parallel load road. If a single device is proposed, the study area will, at a minimum, extend 500 feet from the device.

City staff will meet with the residents to show the study area and gain consensus on specific traffic calming locations and types of measures desired.

In order to objectively rank traffic calming needs, a quantitative ranking procedure has been developed for incorporating both speed and volume components. Points are assessed for varying degrees of vehicular speed and volume outlined in Table 4-1 and 4-2 below.

<b>Table 4-1 Points per Speed</b>	
<b>MPH of 85<sup>th</sup> Percentile Speed over Posted Speed Limit</b>	<b>Points</b>
0 – 4 mph	0
5 – 7 mph	15
8 – 10 mph	30
11 – 13 mph	45
Greater than 13 mph	60 (Max)

<b>Table 4-2 Points per Volume</b>	
<b>Average Daily Traffic (vpd)</b>	<b>Points</b>
Less than 500 vpd	0
501 – 750 vpd	10
751 – 1000 vpd	20
1001 – 1500 vpd	25
1501 – 2500 vpd	30
Greater than 2501 vpd	40 (Max)

Summing the points from each table provides a total which will be used to rank priority of implementation as well as amount of cost share.

### **Cost Share**

The cost share proportion for traffic calming implementation will be determined by comparing the points developed in the previous section to Table below.

<b>Table 4-3 Cost Share Percentage Based on Severity of Problem</b>		
<b>Points</b>	<b>Residents</b>	<b>City</b>
0-44	100%	0
45-55	50	50
56-65	25	75
66 +	0	100

A ballot will then be developed for all property owners in the study area detailing their cost and requesting a vote either for the project or against the project. All non-returned ballots will be counted as a vote against the project. To move forward with implementation, a 66% majority in favor of the project is required. Necessary residence costs will be collected from every property owner in the study areas by special assessment consistent with Florida Statutes. The City's cost share will be considered for funding through the annual budgeting process.

# Winter Park Emergency Response Routes

**Response Routes**

- 2003 WFPD Route Study
- 2009 Public Works Study
- Fire\_Station

**Jurisdictional Boundaries**

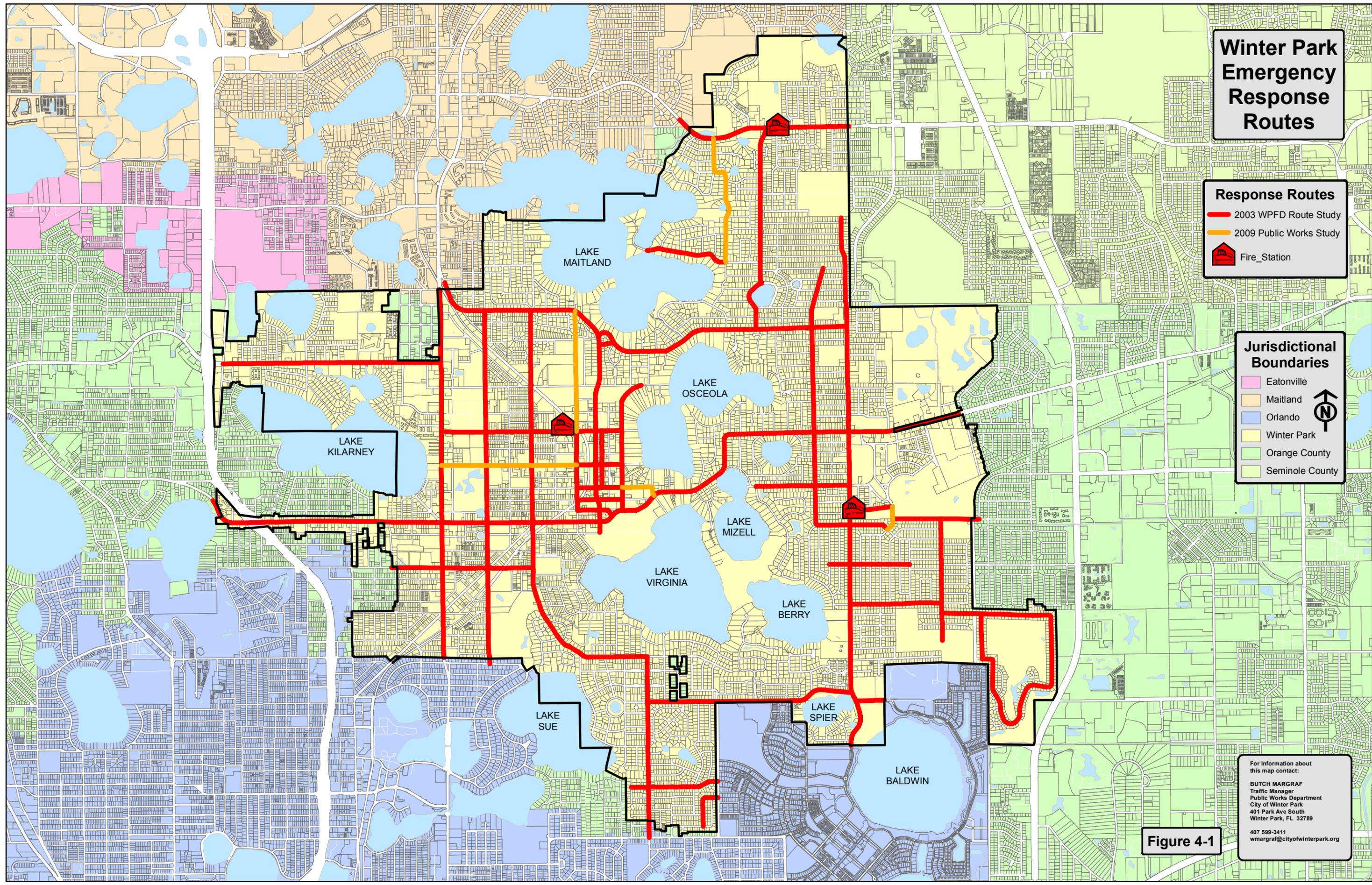
- Eatonville
- Maitland
- Orlando
- Winter Park
- Orange County
- Seminole County

↑ N

For Information about this map contact:

**BUTCH MARGRAF**  
Traffic Manager  
Public Works Department  
City of Winter Park  
401 Park Ave South  
Winter Park, FL 32789

407 599-3411  
wmargraf@cityofwinterpark.org



**Figure 4-1**

## SELECTION OF APPROPRIATE TRAFFIC CALMING DEVICES

When evaluating the various types of traffic calming devices that have been approved, it is important to keep in mind several, site-specific considerations including, but not limited to:

- Street type (i.e., local, collector, etc)
- The perceived problem, i.e. traffic volume and/or speed
- Emergency services route
- Pedestrian/bicyclist safety
- Grade/slope of the road
- Drainage
- Bus and truck routes

All of these issues must be considered as they can have a significant impact on the selection of a traffic calming device.

Table 3-1 shows a comparison of the approved traffic calming devices and highlights the pros and cons of the device, estimated cost, impacts to emergency services, noise impacts and safety impacts as well as other important factors.

**Table 4-4 Traffic Calming Device Comparison**

Device	Reduces Traffic Speed?	Reduces Traffic Volume?	Emergency Impacts	Noise Impacts	Safety Impacts	Loss of Parking?	Est. Cost.
Speed Trailer Display	Yes	No	None	None	Maybe	No	\$500/day
Mid-Block Choker	Yes	Some	Some	Maybe*	Maybe	Maybe	\$8,000-\$25,000
Chicane	Yes	Some	Some	Maybe*	Maybe	Yes	\$15,000-\$35,000
Traffic Circle	Yes	Maybe	Some	Maybe*	Imp. Auto Safety	Yes	\$5,000-\$20,000

**Table 4-4 Con't. Traffic Calming Device Comparison**

Roundabout	Yes	Maybe	Some	Maybe	Imp. Auto and Ped. Safety	Yes	\$15,000-\$100,000
Median Island	Maybe	Maybe	Some	Maybe*	Imp. Ped Safety	Maybe	\$5,000-\$50,000
Gateway/Entry Feature	Some	Some	None	Maybe*	Maybe	Maybe	\$2,000-\$50,000
Brick Street	Yes	Yes	Minor	Yes	None	None	\$200/ft of roadway
Speed Hump, Table, Cushion	Yes	Maybe	Yes	Maybe*	Imp. Bicycle Safety	Maybe	\$3000-\$10,000

*\*Noise impacts depend largely on the use of pavers/bricks.*

### **Stop Signs as Traffic Calming Devices**

One common misnomer is the use of “stop signs” as a traffic calming device. Stop signs are **not** an appropriate traffic calming device for several reasons. Studies have shown that they only reduce speeds within 150-200 feet of the sign, and mid-block speeds (between stop signs) may actually *increase*. Further, increased noise and air pollution emissions occur at stop signs. Finally, overuse of stop signs will eventually lead to motorists ignoring them or rolling through them – both behaviors create potentially dangerous situations. The main function of stop signs is to assign right of way and their installation is governed by the Manual of Uniform Traffic Control Devices (MUTCD).

## SPEED TRAILER/DISPLAY

Not technically a traffic calming device, speed trailers are used primarily to reduce driver speeds, usually in residential neighborhoods although they are sometimes used on collectors and even arterials. The most common variety is a trailer-based display that combines a radar gun, a static speed limit sign and a variable message board (VMS) that displays the drivers' measured speed. It is also possible to have permanent installations that are either solar-powered or have a direct electrical connection.

### Advantages

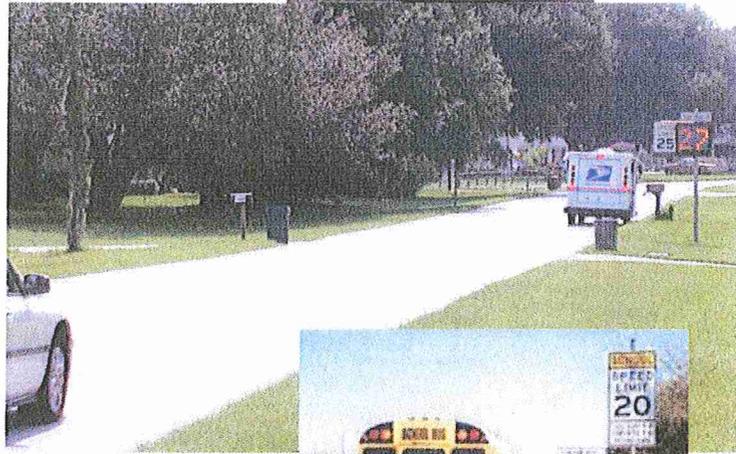
- Effective at reducing speeds
- Potential educational benefits
- Encourages speed compliance

### Disadvantages

- Only effective when present and in use
- Should not be used in remote areas
- Some drivers may use it to "clock" high speeds

### Estimated Cost

\$500 per day (estimated); or, \$8,000 - \$10,000 for a permanent solar-powered installation.



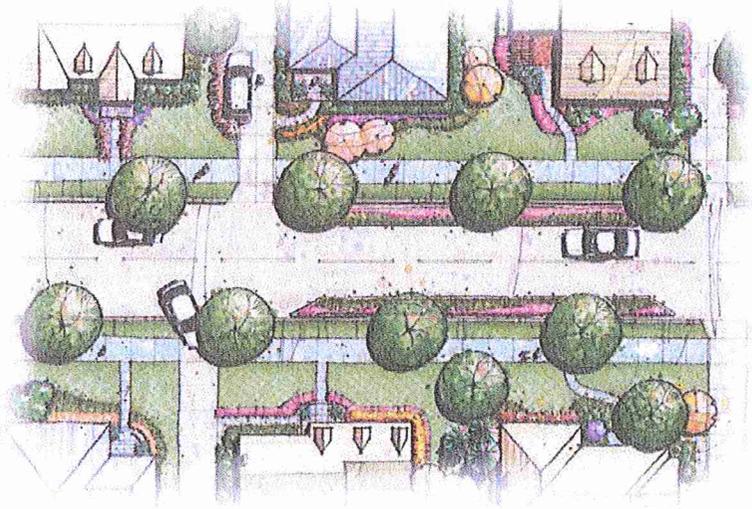
### Overall Assessment

<i>Speed Impacts</i>	<i>Traffic Volume Impacts</i>	<i>Emergency Vehicle Impacts</i>	<i>Noise Impacts</i>	<i>Safety Impacts</i>
Reduces speed	No impacts	No impacts	No noise impacts	Minimal Pedestrian Improvements

*In order that examples of traffic calming could be provided the following 7 pages were utilized from a separate document.*

## MID-BLOCK CHOKER

Mid-block chokers, also known as narrowings or pinch points, constrict the roadway forcing drivers to slow down as they enter a restricted environment. This is usually accomplished through the use of new islands with landscaping or through a widening of existing sidewalks. Chokers are most effective on wide-streets that are experiencing speeding issues. Chokers can reduce the street cross-section to two narrow lanes, often less than 24 feet in width, or further reduce it to one travel lane. One-lane chokers are currently uncommon in the United States, although Portland, Oregon uses them in their traffic calming program.



### Advantages

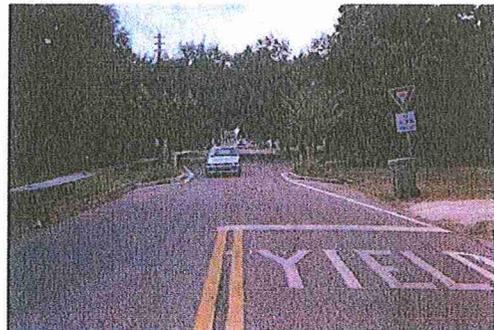
- Effective at reducing speeds and to lesser extent traffic volumes
- Provides landscaping and gateway opportunities
- Reduces pedestrian crossing width
- Does not restrict resident access
- Negotiable by large vehicles; i.e., fire trucks

### Disadvantages

- Requires elimination of on-street parking
- May cause drainage problems if not properly designed; increases maintenance issues
- May require bicyclists to merge with vehicular traffic

### Estimated Cost:

\$8,000 - \$25,000; varies depending on size of installation and type and amount of landscaping.

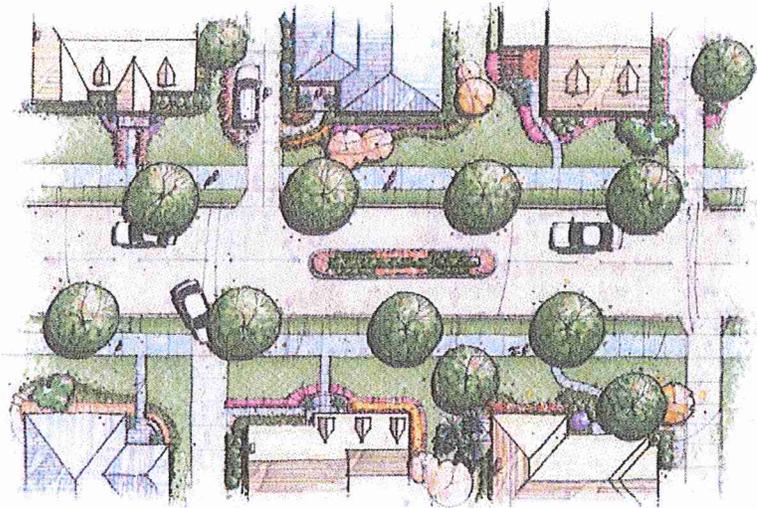


### Overall Assessment

<i>Speed Impacts</i>	<i>Traffic Volume Impacts</i>	<i>Emergency Vehicle Impacts</i>	<i>Noise Impacts</i>	<i>Safety Impacts</i>
Reduces speed	Minor reductions	Minor impacts	Maybe, depending on pavement treatment	Improves pedestrian safety

## CENTER-ISLAND

Center islands are raised islands constructed along the centerline of the street so as to force drivers to deflect their travel path to the outside to accommodate the island. They function by narrowing the travel lanes and are also known as median islands. Center islands generally operate more effectively if they are not too long, at which point they can actually increase speeds. Sometimes known as “gateway islands”, these devices create significant opportunities for landscaping. If the island is constructed in conjunction with a cross-walk, they can act as a pedestrian refuge.



### Advantages

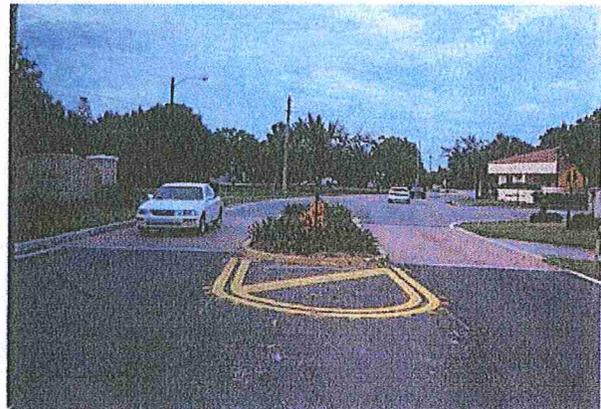
- May reduce traffic volumes
- Provides landscaping and gateway opportunities
- Can improve pedestrian crossing safety
- Can be aesthetically pleasing

### Disadvantages

- May require elimination of on-street parking
- May interrupt driveway access
- Limited speed reduction potential

### Estimated Cost:

\$5,000 - \$40,000; varies depending on size of installation and type and amount of landscape.



City of Orlando Center Island

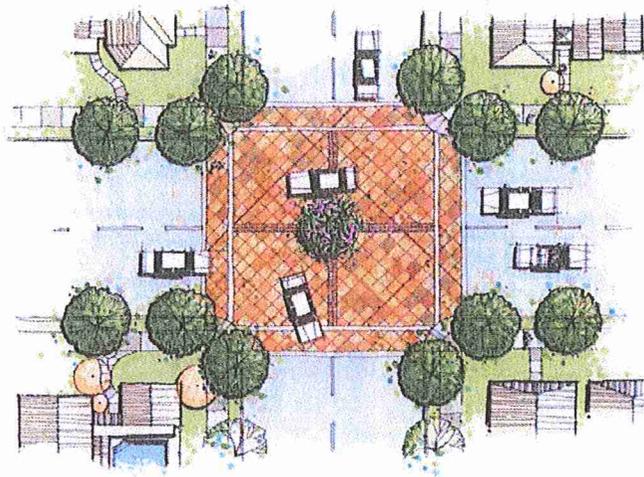
### Overall Assessment

<i>Speed Impacts</i>	<i>Traffic Volume Impacts</i>	<i>Emergency Vehicle Impacts</i>	<i>Noise Impacts</i>	<i>Safety Impacts</i>
May reduce speeds	Reduces traffic volumes	Some impacts	Maybe, depending on pavement treatment	Improves pedestrian safety

## TRAFFIC CIRCLE

Traffic circles are generally raised islands that require drivers to make a horizontal deviation in their direction of travel, thereby forcing drivers to slow down as they maneuver around the circle.

Similar to roundabouts, traffic circles also require traffic to circulate in a counterclockwise motion. Yield signs are usually placed on all approaches to control traffic flows. They function by assigning rights-of-way among competing movements such as a through movement vs. a turning movement. They are generally used on local streets and collectors. They are not recommended for arterials.



### Advantages

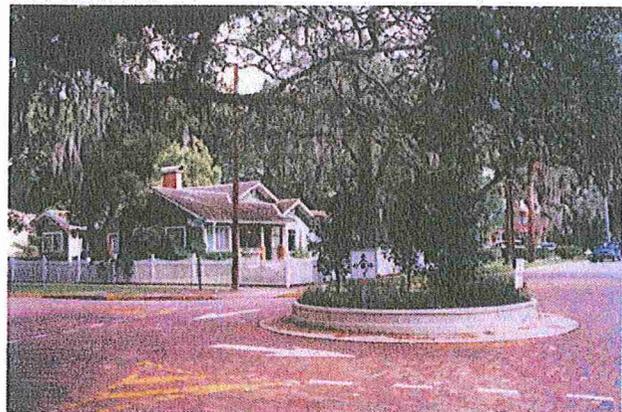
- Effective at reducing speeds
- Does not restrict resident access
- Provides significant landscaping and gateway opportunities
- Generally low impact on emergency vehicles with the provision of a truck apron or other accommodating design
- Can calm two streets at once

### Disadvantages

- Can be somewhat costly
- May restrict left-turns by large vehicles
- May effect pedestrian and bicycle movements
- Maintenance of landscaping may be an issue

### Estimated Cost:

\$5,000 - \$20,000; varies largely depending on size of installation and type and amount of landscape and hardscape.



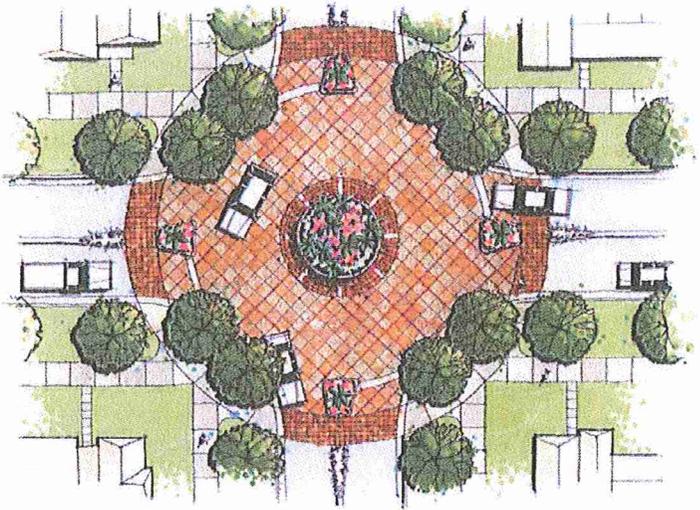
*City of Orlando Traffic Circle*

### Overall Assessment

<i>Speed Impacts</i>	<i>Traffic Volume Impacts</i>	<i>Emergency Vehicle Impacts</i>	<i>Noise Impacts</i>	<i>Safety Impacts</i>
Effectively reduces speed	Potential reductions	Potential impacts	Maybe, depending of pavement treatment	Possible improvements

## ROUNDAABOUT

Roundabouts are a European import that requires traffic to circulate in a counterclockwise motion, generally around a raised center island. Roundabouts act as another type of traffic control similar to a stop sign or a traffic signal. They function by assigning rights-of-way among competing movements such as a through movement vs. a turning movement. They are generally used on collectors and sometimes on minor arterials. They are not recommended for major arterials. Roundabouts are a larger version of neighborhood traffic circles and usually have raised “splitter” islands to direct traffic into the roundabout. Generally, drivers already inside the roundabout have the right-of-way over drivers entering the roundabout from an approach street, requiring these drivers to yield the right-of-way. The provision of a truck apron, usually from bricks or other coarse materials, allows for large vehicles to traverse a roundabout while at the same time restricting passenger vehicles.

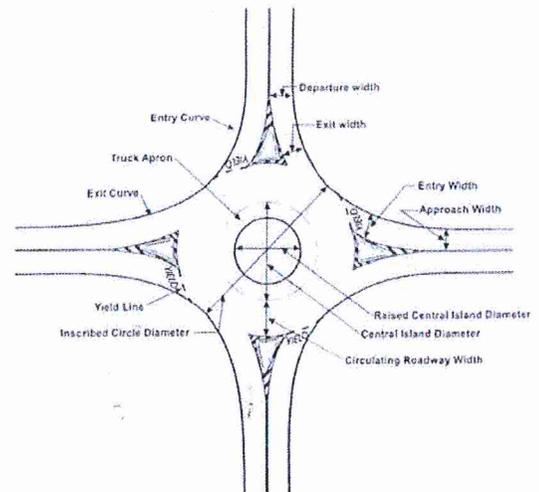


### Advantages

- Effective at reducing speeds
- Less expensive to operate than signals
- Provides significant landscaping and gateway opportunities
- Generally low impact on emergency vehicles with the provision of a truck apron
- Can be installed in place of a traffic signal or 4-way stop sign.

### Disadvantages

- Can be very costly
- May require right-of-way
- May restrict left-turns by large vehicles
- May effect pedestrian and bicycle movements
- Potential maintenance issues



*Typical roundabout design features*

### Estimated Cost:

\$15,000 - \$100,000; varies largely depending on size of installation and type and amount of landscape and hardscape.

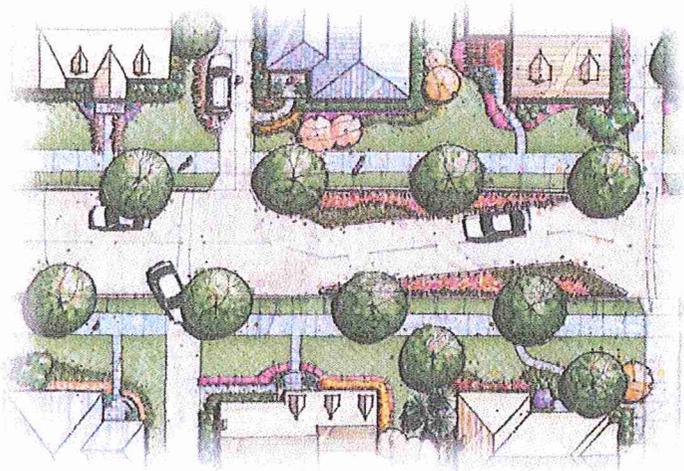
### Overall Assessment

<i>Speed Impacts</i>	<i>Traffic Volume Impacts</i>	<i>Emergency Vehicle Impacts</i>	<i>Noise Impacts</i>	<i>Safety Impacts</i>
Effectively reduces speed	Potential reductions	Some impacts	Maybe, depending on pavement treatment	Substantial improvements

## CHICANE

A chicane is a curvilinear, S-shaped street configuration or alignment that forces drivers to perform additional maneuvering and shortens visual sight lines.

This type of device can either be constructed during the initial construction of the roadway, or as a retrofit installation within existing right-of-way, generally in an island configuration. This type of device is primarily used for speed control or reduction. Chicanes are also sometimes referred to as serpentine, deviations or as a reversed curve.



### Advantages

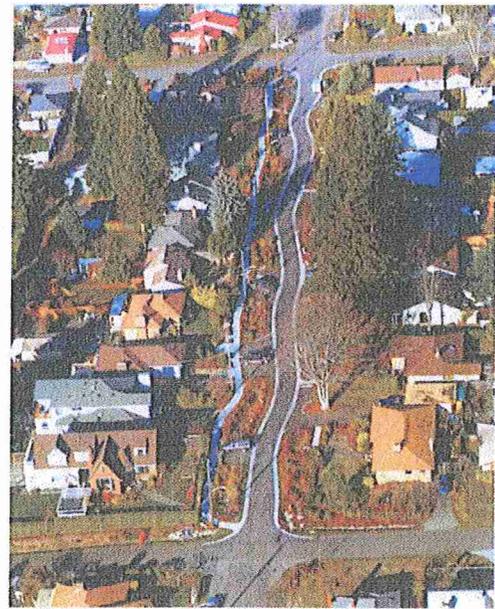
- Effective at reducing speeds
- Does not restrict resident access
- Provides landscaping opportunities
- Generally low impact on emergency vehicles

### Disadvantages

- Must be carefully designed to be effective
- Can be costly
- Potential loss of parking
- May require right-of-way
- Potential drainage concerns

### Estimated Cost

\$15,000 - \$35,000; varies largely depending on size of installation and type and amount of landscaping.



### Overall Traffic Assessment

<i>Speed Impacts</i>	<i>Traffic Volume Impacts</i>	<i>Emergency Vehicle Impacts</i>	<i>Noise Impacts</i>	<i>Safety Impacts</i>
Effectively reduces speed	Potential reductions	Low impacts	No expected noise impacts	Possible improvements

## GATEWAY/ENTRY FEATURE

A gateway or entry feature generally consists of some combination of landscaping and architectural features such as columns, fences or statuary. They are primarily used to signify to drivers that they are entering a special area, usually a residential neighborhood. From a traffic calming perspective they are most effective when vertical elements such as trees or columns are combined with horizontal measures such as bulbouts or corner extensions.



### Advantages

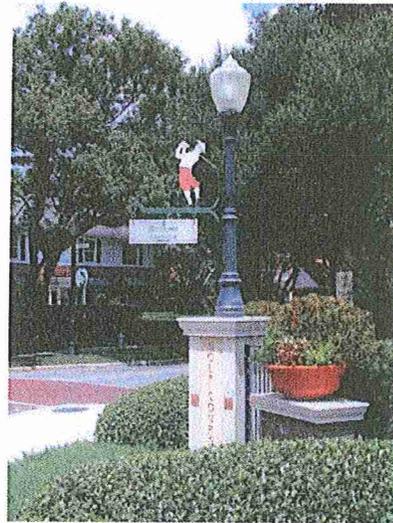
- Promotes neighborhood identity
- Can discourage cut-through traffic
- Provides landscaping opportunities/aesthetically pleasing

### Disadvantages

- Minimal reductions in speed and volumes
- Can be costly
- Maintenance and irrigation requirements
- Potential drainage concerns

### Estimated Cost:

\$2,000 - \$50,000; varies largely depending on size of installation, whether architectural features are included and type and amount of landscaping.



*City of Winter Park Golf Course gateway*

### Overall Traffic Assessment

<i>Speed Impacts</i>	<i>Traffic Volume Impacts</i>	<i>Emergency Vehicle Impacts</i>	<i>Noise Impacts</i>	<i>Safety Impacts</i>
Minimal reductions	Minimal reductions	Low impacts	No expected noise impacts	Possible improvements

## Brick Roads

Brick roads provide traffic calming through gentle vibration and increased road noise which provides feedback to the driver about travel speed. A separate process related to implementing these traffic calming devices has been previously developed call the “Neighborhood Street Bricking Policy.”



### Advantages

- Documented effectiveness at reducing traffic speeds and volumes.
- Provides opportunity to “right size” road to further enhance effectiveness.
- Provides aesthetic improvement to street.
- Limited effect on emergency response

### Disadvantages

- Cost – typical cost is \$200 per centerline foot for 2 lane road
- Increased noise along roadway

### Overall Assessment

<i>Speed Impacts</i>	<i>Traffic Volume Impacts</i>	<i>Emergency Vehicle Impacts</i>	<i>Noise Impacts</i>	<i>Safety Impacts</i>
Effectively reduces speed	Reductions volume	Minor Impacts	Increase in noise	Improvement through speed reduction.

## Speed Humps

This device is a raised asphalt ramp installed across the entire width of a roadway. It is 6-feet long with a parabolic cross section. Speed humps are typically between 3 to 4 inches high. “Speed Hump” signs are placed on both sides to warn motorists. These devices provide traffic calming through



### Advantages

- Documented effectiveness at reducing traffic speeds and volumes.

### Disadvantages

- Indicates a traffic concern for this neighborhood
- Increased noise at the speed hump
- Affects all vehicles including emergency vehicles

### Overall Assessment

<i>Speed Impacts</i>	<i>Traffic Volume Impacts</i>	<i>Emergency Vehicle Impacts</i>	<i>Noise Impacts</i>	<i>Safety Impacts</i>
Effectively reduces speed	Reduces volume	Impacts Response Times	Increase in noise	Improvement through speed reduction.

## **SPEED TABLE**

This device is a raised asphalt ramp installed across the entire width of a roadway. It is 22-feet long, with a 10-foot flat section in the middle and 6-foot ramps on the ends. Speed tables are typically between 3 to 4 inches high. “Speed Hump” signs are placed on both sides to warn motorists.

### **Advantages:**

- Effectively reduces vehicle speeds
- Less severe than the 6-foot speed humps
- Preferred by Fire Department over speed humps.
- Does not pose problems for bicyclists or motorcyclists, except at high speeds.
- Relatively inexpensive to design, install and maintain.

### **Disadvantages:**

- Slows emergency vehicles.
- May increase noise and car emissions near tables.
- May divert traffic to parallel streets.
- Location and spacing is limited by existing features such as driveways, intersecting streets, drainage patterns and utilities.

<i>Speed Impacts</i>	<i>Traffic Volume Impacts</i>	<i>Emergency Vehicle Impacts</i>	<i>Noise Impacts</i>	<i>Safety Impacts</i>
Effectively reduces speed	Reductions volume	Minor Impacts	Increase in noise	Improvement through speed reduction.

## SPEED CUSHION

Speed Cushions are modular devices that are made up of a number of smaller components constructed of high quality recycled rubber to reduce the speed of motorized vehicles Spacing and locations consistent with speed tables.



### Advantages:

- Effectively reduces vehicle speeds.
- Does not greatly affect Emergency vehicles.
- Can reduce vehicular volumes.
- Relatively inexpensive to design, install and maintain.
- Does not pose problems for bicyclists or motorcyclists, except at high speeds.

### Disadvantages:

- Increases noise near speed humps.
- May divert traffic to parallel streets.
- Not aesthetically pleasing.

<i>Speed Impacts</i>	<i>Traffic Volume Impacts</i>	<i>Emergency Vehicle Impacts</i>	<i>Noise Impacts</i>	<i>Safety Impacts</i>
Effectively reduces speed	Reductions volume	Minor Impacts	Increase in noise	Improvement through speed reduction.

## **Section V**

# ***Wayfinding Sign Program***

## Section V Wayfinding Sign Program

Destination guide (wayfinding) signs installed on state, county and city streets are intended to provide guidance and confirmation to our City’s government offices, recreational, cultural, and commercial attractions, and colleges, universities, and vocational schools to which motorists may travel long distances to visit. Wayfinding signs help motorists navigate to their destinations. Because of the many sign requests received by Winter Park criteria has been developed to qualify destinations for signing which the City will fabricate, install, and maintain. The Federal Highway Administration’s (FHWA) Manual of Uniform Traffic Control Devices (MUTCD) limits the number of destinations permitted per wayfinding sign to minimize the time eyes are off the road and distractions from the driving.

Destinations to which municipalities and counties may offer wayfinding signs are limited through the FDOT. These destinations include facilities such as: high schools, town halls, libraries, and local parks. As an extension of their community identity, municipalities may also replace standard white-on-green geographic identification guide signs with custom “Welcome” (place name) signs at their jurisdictional boundary lines.



The basic criteria developed by the FDOT leaves a prominent gap in destination/directional signing, limiting the venue to civic, cultural, visitor, historic, and recreational facilities having local significance as well as interest to tourists unfamiliar with local roads.

As the FDOT Districts were approached by local jurisdictions to permit wayfinding signs, several wayfinding plans were approved in the absence of a statewide definition. Tallahassee, Jacksonville, Delray Beach, and Lakeland were the first at providing signs and symbols to create community identity and help travelers find their way from place to place.

The first official wayfinding sign entry appeared in the Millennium Edition of the MUTCD; and with this came a call for standardization of the criteria for this type of sign program. The FHWA prohibits the use of different color sign backgrounds to provide color-coding of destinations and requires that the color-coding shall be accomplished by the use of different colored square or

rectangular panels on the face of the guide signs. On June 23, 2006, the FDOT received approval for an FHWA Request to Experiment to perform an “Evaluation Study on Wayfinding Signs for the State of Florida.” Florida’s approved wayfinding standards allow the use of different color backgrounds, which is currently different from Section 2D.03 of the MUTCD. Therefore, Florida must receive approval from the FHWA prior to any sign installations. This request to experiment will be handled through the State Traffic Engineering and Operations.



The FDOT, in cooperation with the Florida League of Cities, developed statewide criteria for wayfinding signs on our State Highway System. These standards (Rule Chapter 14-51, Part V, F.A.C., Florida's Highway Guide Sign Program) provide local governments with the flexibility to design their own wayfinding sign system while still maintaining federal and state sign standards in order to safely guide motorists to their destinations. Wayfinding signs to be installed in the FDOT’s maintained right-of-ways must be designed in conformance with the same legibility and retro-reflectivity requirements as standard highway guide signs.

The development of a great wayfinding system involves a collaborative effort to address elements of city-specific characteristics, civic visual identity, and aesthetics to the project's total environmental communication. Community should endeavor to create consistent navigation clues in their public places. Identifying destinations and then information sequencing defines a wayfinding system’s success or failure. Graphics placed on signs, color coding, maps, banners, brochures, and Web sites, can be used to provide orientation, direction, identification, and regulatory information.

When a sign lacks clarity due to illegible lettering when viewed from a distance, or if it contains an inaccurate, ambiguous message, or if it doesn’t meet drivers’ expectations in format, then the sign design can cause navigation and safety problems. The FDOT’s primary consideration rests on presenting motorists with the information they need to navigate, and promoting safety.

**"Wayfinding Sign"** means a directional guide sign that guides the traveling public to key civic, cultural, visitor, and recreational destinations within a specific region.

**"Wayfinding Sign System Plan"** means the location area, design, engineering, and sign plan submitted to the Department for approval.





# Legend

## Destinations

- A. Library
- B. Rollins College
- C. Welcome Center
- D. Farmers' Market/Historical Museum
- E. Parking (Park Place)
- F. Parking (Bank of America)
- G. Parking (City Hall)
- H. Train Station
- I. Parking (Lot A)
- J. Golf Course
- K. Morse Museum
- L. Winter Park Village
- M. Polasek Museum
- N. Scenic Boat Tour
- O. Hospital
- P. Mt. Vernon Inn

Winter Park City Boundary



Downtown Winter Park



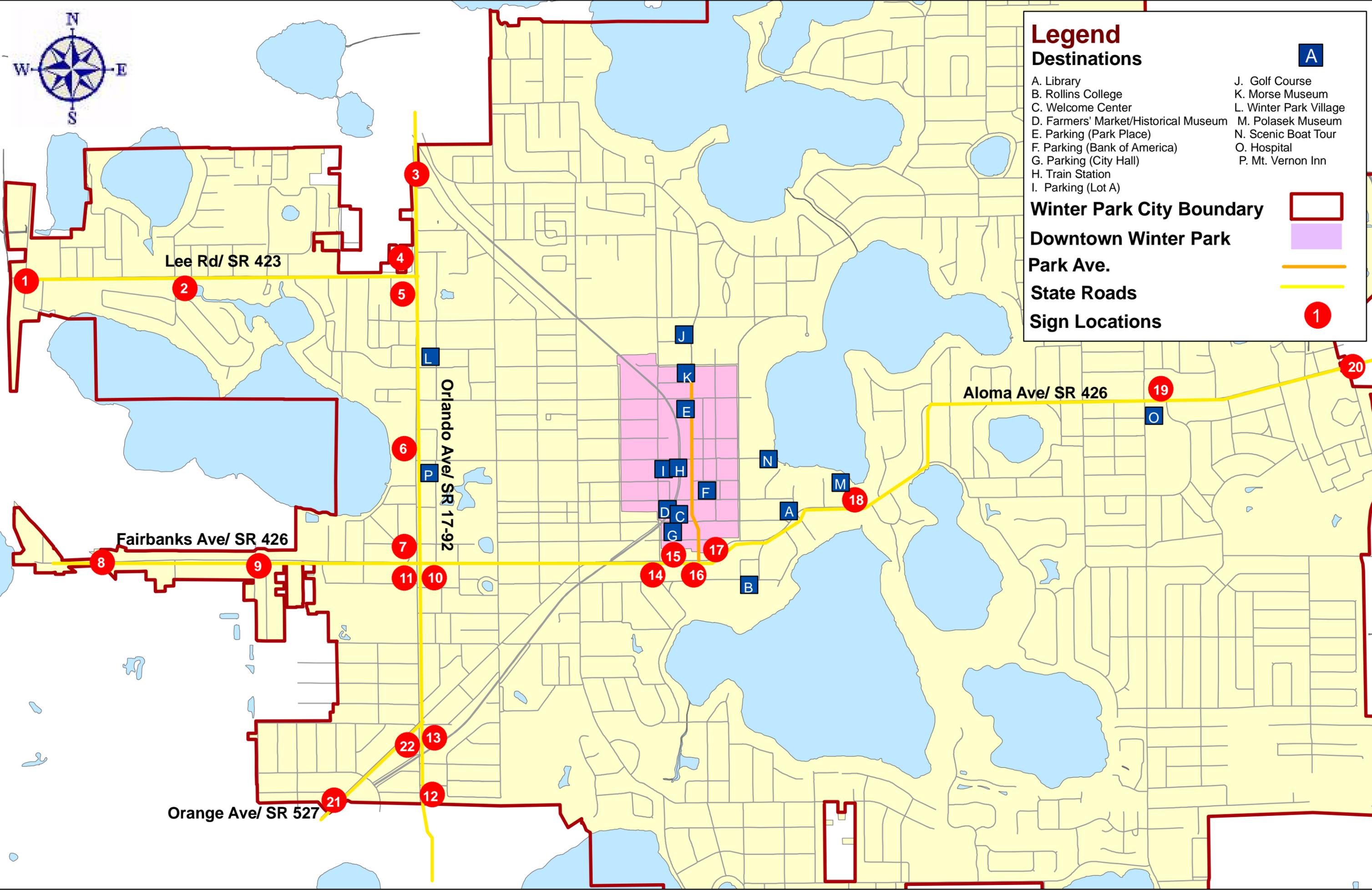
Park Ave.



State Roads



Sign Locations



# Traffic and Transportation Plan

# Appendix

- A. Winter Park Roads Functional Classifications
- B. Supporting Documents/Websites
- C. Traffic Calming – Question and Answer Format
- D. Traffic Calming Improvements Application

## Appendix A - Winter Park Roads Functional Classifications

The functional classifications for the roadways within Winter Park are listed in Table 2-2 from the Transportation Element of the Comprehensive Plan. **Table A-1** below.

<b>Table 2-2: Functional Classification of Roads within Winter Park</b>	
<b>Roadway</b>	<b>Functional Classification</b>
Interstate 4	Limited Access Freeway
Fairbanks Ave/Osceola Ave/ Brewer Ave/Aloma Avenue (SR 426)	Principal Arterial
Howell Branch Road	Principal Arterial
Lee Road (SR 423)	Principal Arterial
Orange Ave (SR 527) (W. of US 17-92)	Principal Arterial
Orlando Ave (US 17-92)	Principal Arterial
Alabama Drive (S. of Via Tuscany)	Collector
Cady Way	Collector
Canton Avenue	Collector
Clay Street	Collector
Denning Drive (N. of Orange Ave)	Collector
Glenridge Way (E. of Winter Park Road)	Collector
Greene Drive	Collector
Holt Avenue	Collector
Interlachen Avenue	Collector
Lakemont Avenue	Collector
Minnesota Avenue	Collector
Mizell Avenue (E. of Phelps Ave)	Collector
Morse Boulevard	Collector
New England Avenue (E. of Pennsylvania Ave)	Collector
New York Avenue	Collector
Orange Ave (SR 527) (E. of US 17-92)	Collector
Palmer Avenue	Collector
Park Avenue	Collector
Pennsylvania Ave / Lake Sue Ave	Collector
Perth Lane	Collector
Summerfield Road	Collector
Temple Drive	Collector
Temple Trail	Collector
Webster Avenue	Collector
Whitehall Drive	Collector
Winter Park Road	Collector
All Other Roads	Local

## **Appendix B - Supporting Documents and Websites**

State of Florida Statutes, Chapter 316

<http://www.leg.state.fl.us/Statutes/>

Winter Park Code of Ordinances, Chapter 98, Traffic and Vehicles

[www.Municode.com](http://www.Municode.com)

2009 City Comprehensive Plan, Chapter 2, Transportation Element GOP

[http://www.cityofwinterpark.org/Pages/Departments/Planning/Planning\\_and\\_Zoning/Comprehensive\\_Plan.aspx](http://www.cityofwinterpark.org/Pages/Departments/Planning/Planning_and_Zoning/Comprehensive_Plan.aspx)

Federal Highway Administration

<http://www.fhwa.dot.gov/>

Manual On Uniform Traffic Control Devices (MUTCD)

[http://mutcd.fhwa.dot.gov/htm/2003r1r2/html\\_index.htm](http://mutcd.fhwa.dot.gov/htm/2003r1r2/html_index.htm)

Florida Department of Transportation

<http://www.dot.state.fl.us/>

Florida Roadway Design Standards

<http://www.dot.state.fl.us/rddesign/DesignStandards/Standards.shtm>

Florida Plans Preparation Manual

<http://www.dot.state.fl.us/rddesign/PPMManual/PPM.shtm>

Florida Greenbook

<http://www.dot.state.fl.us/rddesign/FloridaGreenbook/FGB.shtm>

Speed Zoning for Highways, Roads, and Streets in Florida

[http://www.dot.state.fl.us/TrafficOperations/speedzone/speed\\_zone\\_manual.pdf](http://www.dot.state.fl.us/TrafficOperations/speedzone/speed_zone_manual.pdf)

Florida Drivers Handbook

[http://www.dmv.org/fl-florida/english\\_handbook.pdf](http://www.dmv.org/fl-florida/english_handbook.pdf)

## **Appendix C - Traffic Calming – Frequently Asked Questions**

### **1. I feel like traffic is unsafe on my road, what can I do?**

Contact the Traffic Manager within the City’s Public Works Department @407-599-3233. A review of recent traffic counts will be performed to help understand the problem. If no recent counts are available (within past 2 years), the City will perform speed and volume counts using automated counters. Typically counters will be placed on your street for three (3) days, Tuesday through Thursday. The counters will collect speeds & volume of the traffic continuously throughout the duration of the 3 day count period.

Additionally, field inspections will be performed to observe site specific conditions, such as, existing signs, sight distance, and location of sidewalks, curbs, etc.

### **2. How do the traffic counts help?**

Justification is needed for construction and implementation of traffic control devices. The traffic count data collected is used by the City to objectively determine if a problem exists, the severity of the problem, and potentially the best action to solve it.

### **3. How do you know if there is a speeding problem?**

Typically there is a local street speeding problem when the 85<sup>th</sup> percentile speeds are greater than 8 mph over the posted speed limit.

### **4. What is 85<sup>th</sup> percentile speed and why use it instead of the average or maximum?**

The 85<sup>th</sup> percentile speed is the speed at or below which 85 percent of the motorists drive on a given road unaffected by slower traffic or poor weather. This speed indicates the speed that most motorists on the road consider safe and reasonable under ideal conditions. This speed is not affected by outliers such as a motorist who travels at 60 mph or one going 10 mph, as an average speed would be.

### **5. What is the “posted” speed limit and how is it determined?**

The posted speed limit is the maximum speed legally permitted for a road and is displayed (posted) on a sign along the side of the street. It is set following Florida law,

“Establishment of municipal and county speed zones. (F.S. 316.189) (I) MUNICIPAL SPEED.—The minimum speed limit within any municipality is 30 miles per hour. With respect to residence districts, a municipality may set a lower speed limit of 20 to 25 miles per hour on local streets and highways, after an investigation determines that such a limit is reasonable.”

Historic studies have defined 25 MPH as the acceptable speed limit in Winter Park neighborhoods. If a road is not signed, then the speed limit is 30 mph.

## **6. Now I understand a speeding problem, what is a volume problem?**

Obviously there are many different types of roads that are meant to carry differing traffic volumes ranging from 35,000 vehicles per day (vpd) on Fairbanks Ave to as little as 50 cars or less per day on a short neighborhood cul-de-sac. Roads are classified depending on their function and location within the road network. Common classifications for streets range from large to small according to the City's Comprehensive Plan and include arterial, collector and local roads. Arterials are large roads and carry traffic generated from many areas throughout the region. Some examples of arterials are Aloma Avenue, Orlando Avenue and Lee Road. Collectors carry traffic from neighborhoods and connect to other collectors and arterials. Some examples of collectors are Denning Drive, Lakemont Avenue, Temple Drive and New York Avenue. Local streets are neighborhood streets and are smaller than arterials and collectors. They carry the fewest number of vehicles and are meant to carry vehicles generated from a particular neighborhood or small assemblage of neighborhoods. A complete listing of arterial and collector streets in the City can be found in the City's Comprehensive Plan. All other streets not listed as arterials or collectors are considered local.

In order for motorists to get around, all parts of the street network must operate together. Typically, cars travel from their residence on local roads. Several local roads then connect to a collector which can carry cars from many neighborhoods. These collectors then connect to other connectors and arterials which provide means of easily getting around without driving through neighborhoods on local roads.

As a rule of thumb a residence will on average generate 10 vehicle trips per day. Therefore, if a neighborhood has 100 homes, the traffic generated from the neighborhood would be approximately 1000 trips per day.

Another factor contributing to the volume of vehicles on your street is "cut-thru traffic." Cut-thru traffic are vehicles that begin their trips outside of a particular neighborhood and travel on local neighborhood roads versus using the available collectors and arterials to travel around and through the City. The City desires to discourage this cut through behavior and views it as a problem but, unlike a speeding problem, volume problems are more difficult to identify and solve. Simply counting the number of vehicles does not necessarily indicate a volume problem or cut-thru traffic problem

## **7. So when is volume a problem?**

The first step is to determine what category of road you live on. If it is not listed as an arterial or collector then it is a local road. Generally arterials and collectors do not qualify for traffic calming on volume because these streets are designed to carry regional traffic.

To objectively assess a local road the City evaluates traffic volumes along with speeds to determine if a street warrants further study. A point system has been developed whereby points are assigned by ranges of vehicle volumes, and by ranges of vehicle speeds as depicted in the charts below. Summing these speed and volume points helps define a problem if the total points are 45 or greater. Also, generally the higher the points, the bigger the problem.

Points per Speed	
MPH of 85 <sup>th</sup> Percentile Speed over Posted Speed Limit	Points
0 – 4 mph	0
5 – 7 mph	15
8 – 10 mph	30
11 – 13 mph	45
Greater than 13 mph	60 (Max)

Points per Volume	
Average Daily Traffic (vpd)	Points
Less than 500 vpd	0
501 – 750 vpd	10
751 – 1000 vpd	20
1001 – 1500 vpd	25
1501 – 2500 vpd	30
Greater than 2501 vpd	40 (Max)

Problem Determination Chart	
Criteria	Points
Speed	60 (Max)
Volume	40 (Max)
Total Possible Points	100

Here is an example of a problem determination for a typical residential street using the criteria in the tables below:

Posted speed limit is 25 mph

85 <sup>th</sup> percentile speed	31 mph	-	15 points
Vehicle 24 hour volume	1650 vpd	-	30 points
Total			45 points

The goal for Neighborhood Traffic Calming in Winter Park is to influence drivers to reduce their driving speeds and to use the classified hierarchy of streets roadway system to travel within the City. A successful result of traffic calming will be a point total less than 45, with a reduction of speed or a reduction in volume, or both.

**8. I live on Palmer Avenue and it looks like a neighborhood street, so why does it have so many cars?**

As I mentioned before, roads are classified based on how they function within the road network. Palmer is classified as a collector and even though it has houses on it, it is not a local road. Its location causes it to serve as a collector of many streets and so it will carry more cars than a local road. It also connects to collectors on each end making it a vital route to transverse the City. A concern of performing traffic calming measures on collectors and arterials is the potential to create cut through traffic through neighborhoods on local roads by motorists wishing to avoid the traffic calming.

**9. How are speed and volume problems solved?**

Speed and volume problems can be addressed in many ways. Since motorists are creatures of habit and habit is created through comfort, successful ways to address traffic problems include creation of physical discomfort, financial discomfort and psychological and passive discomfort with regard to their driving. There are a myriad of ways to provide these types of discomfort in order to alter motorists problem causing behavior.

Physical discomfort can be achieved through actions that cause the vehicle to gently shake or bounce depending on speed traveled and include brick roads, speed humps/bumps and other changes which inflict some type of movement to the vehicle. Financial discomfort is usually achieved through citations from friendly traffic officers.

Psychological or passive discomfort can be achieved through actions that create a sense of uneasiness and are achieved through street narrowing, signage, and lighting.

**10. How do you know which one to use?**

Traffic calming is a relatively recent development and there are no hard and fast rules for what works in every situation. Many different types of calming have been developed, implemented and studied throughout the world with varying levels of success. Obviously each situation is different, so judgment is needed when deciding. Also, residents who will live with the device should be able to have a voice in what is installed to fit in with the neighborhood. Obviously, the City doesn't want to install "eye sores" in the neighborhood and so they should look natural and aesthetically pleasing. A list of typical designs for acceptable devices is provided as an appendix to the document.

**11. If I live on a local road and the numbers confirm I have a problem, then what?**

A meeting will be held with neighborhood representatives and Public Works staff to determine mutually agreeable and appropriate traffic calming measures to consider. An affected study area will be determined based on neighborhood input and staff recommendation which outlines the generally affected properties if traffic calming measures are installed. For neighborhood wide projects, the entire neighborhood becomes the study area. Consequently, if only one street is planned for traffic calming, the study area would include the entire street. If staff feels there is a real possibility that the proposed traffic calming will move over 250 vehicles per day to an adjacent parallel local road, the study area would be enlarged to include the parallel route. If a single device is proposed, the study area will include all properties with 500 feet of the device along the affected road(s). Realizing that every neighborhood is different staff will use good judgment in applying these criteria in developing the study area.

A petition must be generated by the neighborhood representative(s) showing at least 66% support for traffic calming within the study area for the process to move forward. If support is garnered, City staff will then develop preliminary engineering plans and cost estimates of the calming plan.

**12. Who pays for the devices and what level of support is needed to move towards implementation?**

The cost share will be as follows based on the severity of the problem determined by the rating score:

Cost Share Percentage Based on Severity of Problem		
Points	Residents	City
0-44	100%	0
45-55	50	50
56-65	25	75
66 +	0	100

A ballot will then be developed for all property owners in the study area detailing their cost and requesting a vote either for the project or against the project. All non-returned ballots will be counted as a vote against the project. To move forward with implementation, a 66% majority in favor of the project is required. Necessary residence costs will be collected from every property owner in the study areas by special assessment consistent with Florida Statutes. The City's cost share will be considered for funding through the annual budgeting process.

**13. What if the numbers show there is not a problem but the neighborhood wants traffic calming anyway?**

Staff could still meet with neighborhood representatives to determine appropriate devices with an emphasis on beautification. Based on numerical ratings, the neighborhood would bear all costs for installation. An appropriate affected study area would be developed and costs divided among all property owners in the study area. A ballot would be sent and a 66% majority is necessary to proceed with the project. Collections of costs are the same as above.

**14. Who will maintain the device(s) after installation?**

The City will install standard level landscape and low maintenance plants using the tenants of xeriscaping and will maintain such for the life of the device. If a higher level of landscape is desired, a maintenance agreement will be developed with the neighborhood/study area for the additional costs of maintaining the high level landscaping.

**15. How does traffic calming affect Police and Fire service?**

Traffic calming does not interfere with the Police being able to continue to provide a very high level of service as their cars are very maneuverable and their units are already patrolling neighborhoods (they don't always report from one central location). In order to not reduce the response time for Fire Rescue, no traffic calming which would significantly slow response vehicles will be allowed on primary run routes as depicted in the Emergency Response Route Map on the following page. Also, devices located within neighborhoods will be designed to accommodate fire vehicles.

## Appendix D - Traffic Calming Improvements Application

The purpose of this form is to request traffic calming improvements in accordance with the City of Winter Park Traffic Calming Policy. Please list only one street for which traffic calming is requested. A separate application(s) is required for each additional street. Please mail or deliver the application(s) to the following address:



Traffic Manager  
 Public Works Department  
 180 W Lyman Ave  
 Winter Park, Florida 32789  
 Phone: (407) 599 - 3233

Date: \_\_\_\_\_

Name of Street and approximate limits/cross streets: \_\_\_\_\_

Description of traffic or safety issues. Attach additional pages or sketches, if necessary.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Name of Neighborhood/Homeowner Association (if applicable):

\_\_\_\_\_

Names of at least three residential property owners who also reside at an address in your neighborhood who agree to actively participate in the traffic calming project. Indicate the individual who will be serving as the primary point of contact.

Printer Name	Address	Phone Number
1.		
2.		
3.		
4.		
5.		
6.		
7.		

---

**Please do not write below this line: City Use Only**

Date Received: \_\_\_\_\_ Project Number: TC-\_\_\_\_\_