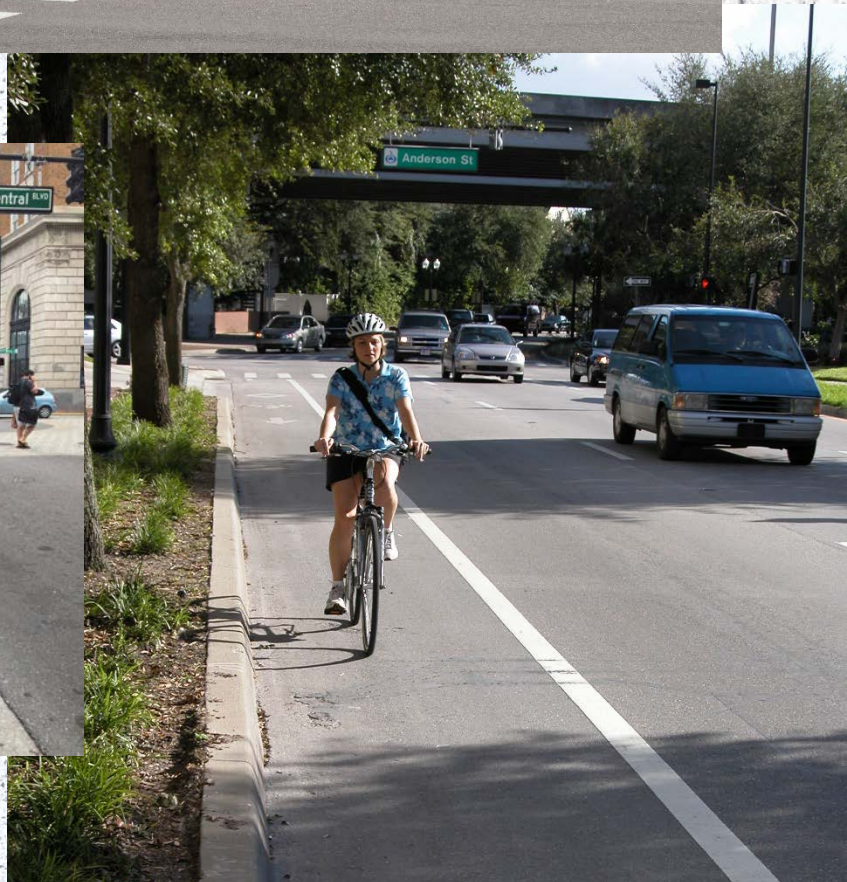


Pedestrian & Bicyclist Counts



Overview

Understanding how many people walk and bicycle at various locations has long been a goal for transportation planners. Until recently, the only reliable method for conducting such counts has been to put people out on the streets to visually and manually do the counting. Such efforts are very expensive and time consuming. Recent advances in technology have improved upon this to some extent.



MetroPlan Orlando, in cooperation with the Florida Department of Transportation and numerous local governments, has been initiating and developing methods for counting pedestrians and bicyclists along streets and paths. Our focus on conducting such counts has been focused along two key concerns: measuring pedestrian and bicyclist exposure in order to understand the effectiveness of various safety improvements, and measuring the impacts of changes in transit service and associated land uses and how they increase walking and bicycling.

In 2014 and 2015, MetroPlan Orlando participated in the National Bicycle and Pedestrian Documentation Project (NBPD). The NBPD is an annual bicyclist and pedestrian manual count and survey effort sponsored by the Institute of Transportation Engineers' Pedestrian and Bicycle Council. Several other cities across the U.S. participate in

these efforts, including Miami, Los Angeles, and Seattle.

Participating NBPD organizations can pick at least one weekday (Tuesday, Wednesday, or Thursday) and a Saturday following or preceding the official count date. The recommended times are 4:00 p.m. to 6:00 p.m. for the weekday count and 12:00 p.m. to 2:00 p.m. for the Saturday count. These time periods were chosen because the afternoon peak and midday Saturday typically have the largest volumes of travelers.





In January 2014, MetroPlan Orlando conducted the first round of NBPD counts. Nine (9) locations were selected for the initial count. The locations were chosen based on proximity to the new SunRail commuter train stations and the ability to acquire before-and-after SunRail count data. Additional intersections were added, based on requests from local governments.

In September, MetroPlan partnered with FDOT District 5 and organized a second round of manual counts to coincide with NBPD's official count week. This time we expanded the count intersections to include high pedestrian and bicyclist crash corridors, intersections from MetroPlan Orlando's 2012 Pedestrian Safety Action Plan, and the busiest transit stops based on boarding and alighting data from our transit authority (LYNX). In total, we counted 31 intersections in our metro area.

As with motor vehicle counts, counting bicyclists and pedestrians at specific locations can help us to more accurately estimate demand, measure the benefits of investments, and design our transportation projects with users' needs and behaviors in mind.

This information will also help us target safety and mobility projects and improve our traffic models. With the generous help of volunteers, MetroPlan Orlando continued to conduct manual bicyclist and pedestrian counts throughout the Orlando metro region during the month of September.

Bicyclist and Pedestrian Corridors Identification

Manually counting bicyclists and pedestrians can be time consuming. However, implementing the digital portion of our program requires research and analysis of our bicyclist and pedestrian corridors. For the past year, MetroPlan Orlando staff has been analyzing data to develop a list of bicyclist and pedestrian corridors and intersections that are either highly used or have the most crashes. Our efforts were divided by mode.

Pedestrian Corridors

To analyze our pedestrian corridors, MetroPlan Orlando has used Signal Four Analytics Crash Database, MetroPlan Orlando's 2012 Pedestrian Safety Action Plan, and LYNX boarding/alighting data.

Florida Signal Four Analytics is an interactive, web-based system designed to support the crash mapping and analysis needs of law enforcement, traffic engineering, transportation planning agencies, and research institutions in the state of Florida. This system was developed by the GeoPlan Center at the University of Florida, and funded by the State of Florida through the Traffic Records Coordinating Committee (TRCC).



Through this system, MetroPlan Orlando staff can pull a list of high pedestrian crash corridors during a particular time span. For the purposes of our program, we looked at the top 15 intersections for bicyclist injuries, bicyclist fatalities, pedestrian injuries, and pedestrian fatalities.

MetroPlan Orlando's Pedestrian Safety Action plan was developed in 2012 in an effort not only to identify high crash corridors and intersections, but also to recommend specific solutions for those locations. The Plan provides a list of corridors that require the most urgent attention. MetroPlan Orlando reviewed the 2012 list and selected those corridors and intersections that still had high crash rates.

Lastly, the Central Florida Regional Transportation Authority (LYNX) provides MetroPlan with quarterly boarding and alighting data for the fixed-route bus service through Orange, Seminole, and Osceola Counties. MetroPlan staff reviewed this data and compiled a list of the top 15 most used transit stops.



Bicyclist Corridors

In addition to using the Signal Four Analytics and the LYNX boarding /alighting data, MetroPlan Orlando has partnered with Strava, a mobile phone application company, to acquire bicyclists' GPS data for Orange, Osceola, and Seminole counties. Strava's Metro program allows MetroPlan Orlando to produce detailed analyses and glean insights into cycling patterns dissected by time of day, route choice, facility preference, origin-destination patterns, trip length, and more.

Strava has provided this data to MetroPlan Orlando in a GIS format, and staff is currently working on

creating individualized maps for our regional counties and municipalities. All maps will be easily accessible through our website, and they will provide each corridor's bicyclist usage concentration and any bicycle facility improvements (bike lanes, door zones, etc.). It is our hope that local governments will use this information to learn about their local bicycle networks and to improve those high-demand streets.

By using the Signal Four Analytics, the LYNX boarding /alighting, and the data from Strava, MetroPlan Orlando can develop and implement a comprehensive Counter Program.

Counter Technology

To support effective bicycle and pedestrian planning, MetroPlan Orlando has been working with FDOT and local jurisdictions to build an efficient and effective counter program. We launched this portion of the program in 2015; a digital counter program to collect long-term bicyclist and pedestrian counts on roads and trails throughout the region.

Due to the size of our 3-county planning area, MetroPlan Orlando purchased semi-permanent digital counters that are easy to install, easy to move, can gather the data remotely, and are easy to sustain. These automated counters can count bicyclist and pedestrian activity 24 hours a day, regardless the weather conditions. Our hope is to gather a continuous record of our bicycling and walking activity throughout particular corridors and to understand how volumes can change with weather, season, land use changes, and transportation projects.

MetroPlan Orlando has used the data acquired through the manual counts and the identification of bicyclist and pedestrian corridors to establish a list of the corridors and intersections to be counted. With the help of our local partners, we have developed a methodology that will establish how long counters will be placed at each location.



The digital counters rotate among locations until all the locations on the list have been counted. Staff will continuously review and report out on the data acquired by the counters. This is a long-term project, so we expect counties and local governments to assist us in implementing this portion of the program. Our intent is to quantify high bicyclist and pedestrian crashes against year round bicyclist and pedestrian activity levels.

Challenges and Limitations

There are different needs and considerations for counting pedestrians and bicyclists. Bicyclists can travel either on the roadway or the sidewalk, while pedestrians normally keep to the sidewalk unless crossing a roadway. Counting bicyclists traveling in regular travel lanes is difficult, as detectors must be able to differentiate between bicyclists and other vehicle types. Even detectors placed in bike lanes may be subject to false counts from other vehicles. Pneumatic tubes can be used to count bicyclists, but not pedestrians.

The devices acquired by MetroPlan Orlando are infrared detectors called “pyro boxes.” These devices can detect pedestrians and bicyclists who cross a detection beam. They cannot differentiate between pedestrians and bicyclists, and they cannot be used to detect bicyclists on the roadway. They must be positioned so that they do not detect passing motor vehicles.

Calculating an accurate mode split between pedestrians and bicyclists on sidewalks from pyro boxes alone may not be feasible. Manual counts may be useful in estimating such splits, but there is a great deal of variation in these splits from our past manual counts. The bicyclist share of total non-motorized users ranged from 11% to 67% in those counts, and those numbers included bicyclists on roadways. The percentage of bicyclists using the roadway can vary a great deal, depending on land use, demographics, presence and width of a bike lane or paved shoulder, and other roadway characteristics.

Counts

This report provides sample results from seven manual count locations and seventeen (17) detector locations. Table 1 shows the Manual Counts (averaging two years) and Table 2 the detector locations. The following pages will provided more detailed information on each count location.

Table 1

Manual Counts	Jurisdiction	Average Thursday Evening Peak Counts		Average Saturday Mid-day Counts		Average Total Counts		Percentage by Mode	
		Pedestrians	Bicyclists	Pedestrians	Bicyclists	Pedestrians	Bicyclists	Pedestrian	Bicyclists
Silver Star Road & Pine Hills Road	Orange County	150	NA	38	NA	188	NA	100%	na
Orange Ave. & Livingston St.	Orlando	88	17	210	33	298	50	86%	14%
Alafaya Trail & Science Dr.	Orange County	60	46	42	22	102	68	60%	40%
Colonial Dr. & Alafaya Trail	Orange County	55	31	62	14	117	45	72%	28%
Semoran Blvd. & Ronald Reagan Blvd.	Altamonte Springs	15	20	4	8	19	28	40%	60%
US 17/92 & Sybelia Pkwy.	Maitland	12	2	9	10	21	12	64%	36%
Osceola Pkwy. & Michigan Ave.	Osceola County	12	1	20	3	32	4	89%	11%
SR 46 & Airport Blvd.	Seminole County	4	6	1	3	4	8	33%	67%
Totals		395	122	386	93	780	215	78%	22%

Table 2

Detector Counts	Jurisdiction	Hourly Average	Daily Average	Monthly Estimate
Park Ave. & Morse Blvd.	Winter Park	214	5,138	156,380
Orange Ave. & Robinson St.	Orlando	69	1,661	50,560
Semoran Blvd. & Wymore Rd.	Altamonte Springs	67	1,603	48,792
Colonial Dr. & Primrose Ave.	Orlando	37	887	26,974
Vine St. & Dyer Blvd.	Osceola County	33	787	23,937
SR 434 & West Town Pkwy.	Altamonte Springs	26	613	18,661
Broadway & Sproule Ave.	Kissimmee	22	533	16,224
Colonial Dr. & John Young Pkwy.	Orlando	21	525	15,974
Lake Baldwin Lane & Foss Ave.	Orlando	20	463	14,082
Colonial Dr. & Magnolia Ave.	Orlando	16	391	11,891
Landstar Blvd. & Town Center Blvd.	Orange County	15	347	10,563
Semoran Blvd. & Howell Branch Road	Casselberry	11	267	8,147
Sand Lake Road & S. Orange Blossom Trail	Orange County	11	265	8,058
US 17/92 & Lake Mary Blvd.	Sanford	9	222	6,745
S. Orange Blossom Trail & Americana Blvd.	Orange County	8	196	5,972
Kissimmee Trail & John Young Pkwy.	Osceola County	8	190	5,777
Semoran Blvd. & Cranes Roost Blvd.	Altamonte Springs	7	158	4,817

Manual Counts

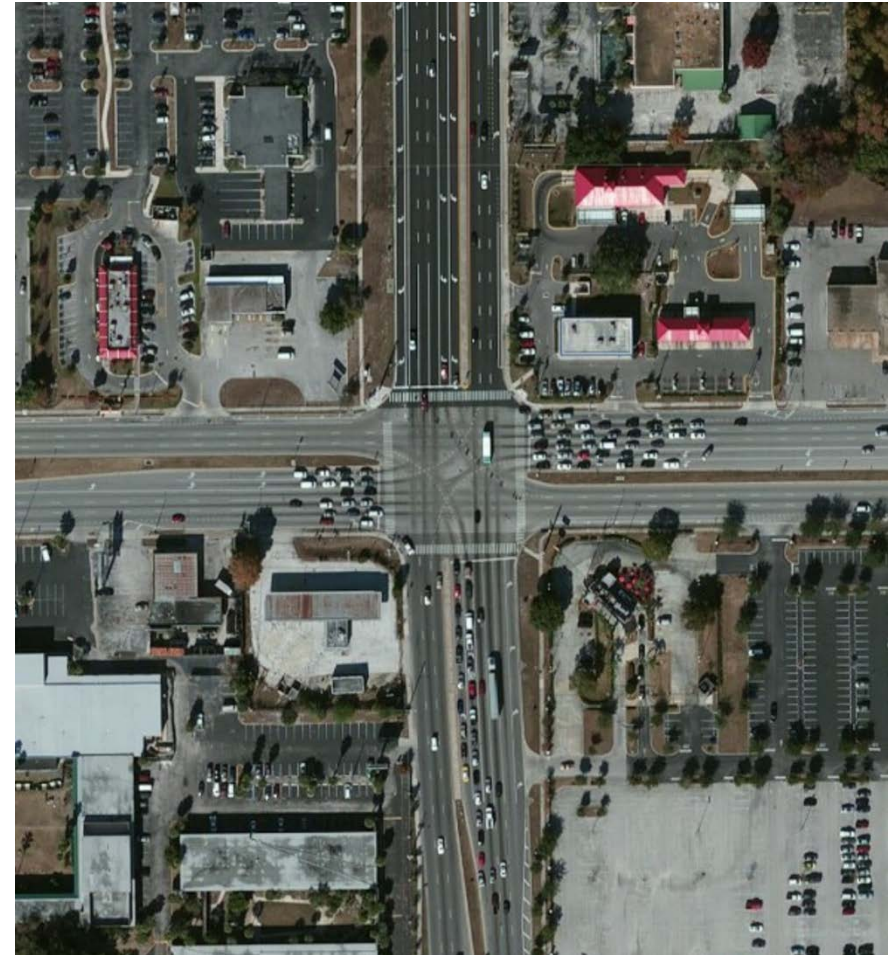


Silver Star Road (SR 438) and Pine Hills Road

The intersection of Silver Star Road (SR 438) and Pine Hills Road is located in Orange County, Florida. SR 438 is a six-lane arterial with a posted speed of 45 mph. Pine Hills Road is a four-lane collector with a posted speed of 40 mph. The land uses in the immediate vicinity of the intersection are predominantly commercial, switching to predominately residential a few hundred yards from the intersection. Evans High School is located within about 100 yards northeast of the intersection, and many high school students walk through the area. The first phase of the Pine Hills Trail will be constructed 1,200 feet west of the intersection, running parallel to Pine Hills Road. Four LYNX bus routes travel through the intersection.

2-Hour Manual Counts

Mode	Thur., September 11, 2014 4:00 p.m. to 6:00 p.m.	Sat., September 13, 2014 Noon to 2:00 p.m.
Pedestrians	150	38
Bicyclists were not counted for these dates.		



Orange Avenue (SR 527) and Livingston Street

The intersection of Orange Avenue (SR 527) and Livingston Street is located in the City of Orlando in Orange County, Florida. Orange Avenue is a four-lane, one-way arterial with a posted speed of 25 mph; it is lined with parallel parking on both sides and has complete sidewalks on both sides. Livingston Street is a two-lane collector with a posted speed of 25 mph, complete sidewalks on both sides, and designated bike lanes. Livingston also has two bus-only lanes for a downtown bus rapid transit system (Lymmo). The land uses in the immediate vicinity of the intersection are civic (county courthouse), commercial, and mixed use. The LYNX Central Station is one tenth of a mile to the west. The lot at the northwest corner is being developed as multi-story mixed use.

2-Hour Manual Counts

Mode	Thur., January 9, 2014 4:00 p.m. to 6:00 p.m.	Sat., January 11, 2014 Noon to 2:00 p.m.
Pedestrians	88 (84%)	210 (86%)
Bicyclists	17 (16%)	33 (14%)
Combined	105	243

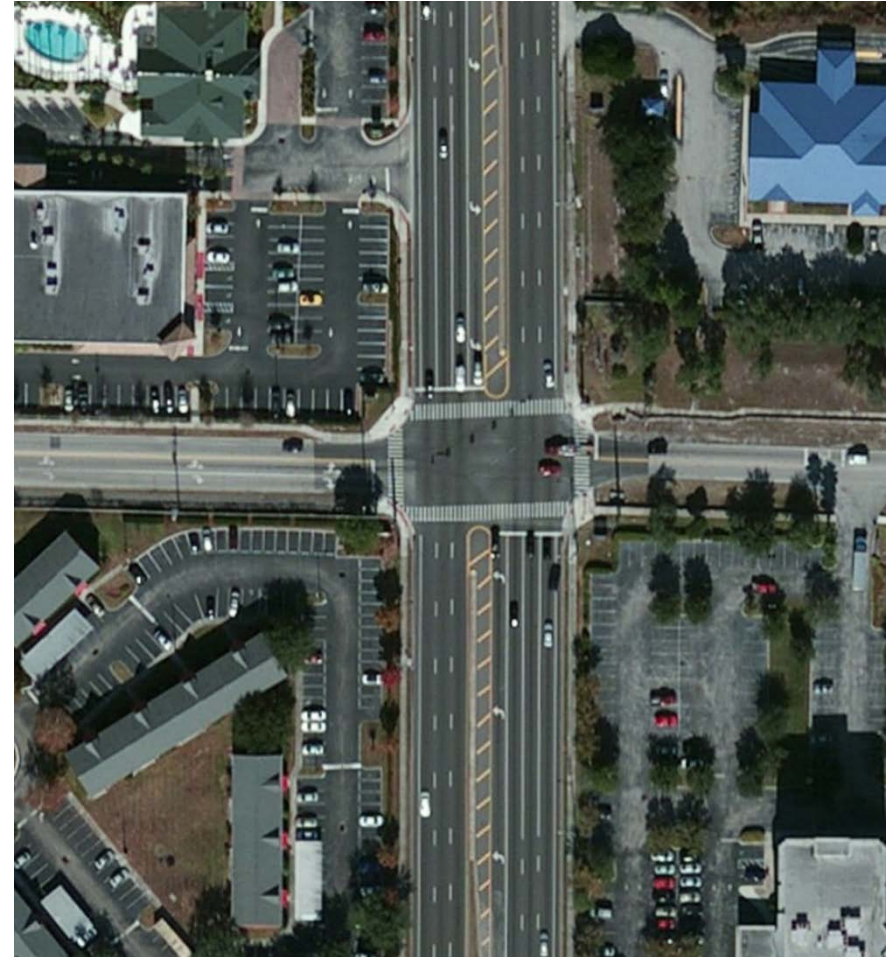


Alafaya Trail (SR 434) and Science Drive

The intersection of Alafaya Trail (SR 434) and Science Drive is located in Orange County, Florida. SR 434 is a six-lane, divided arterial with a posted speed of 45 mph; it has complete sidewalks on and undesignated bike lanes on both sides. Science Drive is a two-lane local collector with a posted speed of 25 mph. West of the intersection it is named Lokanotosa Trail. The Little Econ Greenway shared use path runs along the south side of Lokanotosa and terminates at Alafaya. The land uses in the immediate vicinity of the intersection are multi-family housing, with some commercial. The University of Central Florida is one mile north, and the UCF Research Park is a half-mile east of the intersection. The intersection is served by three LYNX bus routes, including a UCF student circulator.

Manual Counts

Mode	Thur., October 15, 2014 4:00 p.m. to 6:00 p.m.	Sat., October 17, 2014 Noon to 2:00 p.m.
Pedestrians	60 (57%)	42 (66%)
Bicyclists	46 (43%)	22 (34%)
Combined	106	64



Colonial Drive (SR 50) and Alafaya Trail (SR 434)

The intersection of Colonial Drive (SR 50) and Alafaya Trail (SR 434) is located in Orange County, Florida. SR 50 is a six-lane, divided arterial with a posted speed of 45 mph; it has complete sidewalks and bike lanes on both sides. Alafaya Trail is a six-lane divided arterial with a posted speed of 45 mph. North of Colonial it is a state road with complete sidewalks and undesignated bike lanes on both sides. South of Colonial it is an Orange County road, with sidewalks on both sides. The land uses in the immediate vicinity of the intersection are strip commercial. The intersection is served by three LYNX bus routes.

Manual Counts

Mode	Thur., January 9, 2014 4:00 p.m. to 6:00 p.m.	Sat., January 11, 2014 Noon to 2:00 p.m.
Pedestrians	42 (58%)	65 (83%)
Bicyclists	31 (42%)	14 (17%)
Combined	73	79
	Thur., September 11, 2014 4:00 p.m. to 6:00 p.m.	Sat., September 13, 2014 Noon to 2:00 p.m.
Pedestrians	67	59
Bicyclists were not counted for these dates.		
Dates Combined		
Total Ped	109	124



Semoran Blvd. (SR 436) and Ronald Reagan Blvd.

The intersection of Semoran Boulevard (SR 436) and Ronald Reagan Boulevard is located in the City of Altamonte Springs in Seminole County, Florida. SR 436 is a six-lane, divided arterial with a posted speed of 45 mph; it has complete sidewalks on both sides. Ronald Reagan Boulevard is a four-lane divided collector with a posted speed of 40 mph and complete sidewalks north of the intersection. South of the intersection it is a two-lane undivided collector with a sidewalk only on the west side and posted speed of 35 mph. The land uses in the immediate vicinity of the intersection are strip and civic (Altamonte Springs City Hall), with some multi-family residential to the south. A SunRail station is at the northeast corner, and the intersection is served by one LYNX bus route.

Manual Counts

Mode	Thur., January 9, 2014 4:00 p.m. to 6:00 p.m.	Sat., January 11, 2014 Noon to 2:00 p.m.
Pedestrians	20 (67%)	6 (38%)
Bicyclists	10 (33%)	10 (62%)
Combined	30	16
	Thur., September 11, 2014 4:00 p.m. to 6:00 p.m.	Sat., September 13, 2014 Noon to 2:00 p.m.
Pedestrians	9 (24%)	2 (25%)
Bicyclists	29 (76%)	6 (75%)
Combined	38	8
Dates Combined		
Total Ped	29 (43%)	8 (33%)
Total Bike	39 (57%)	16 (67%)
Total Combined	68	24

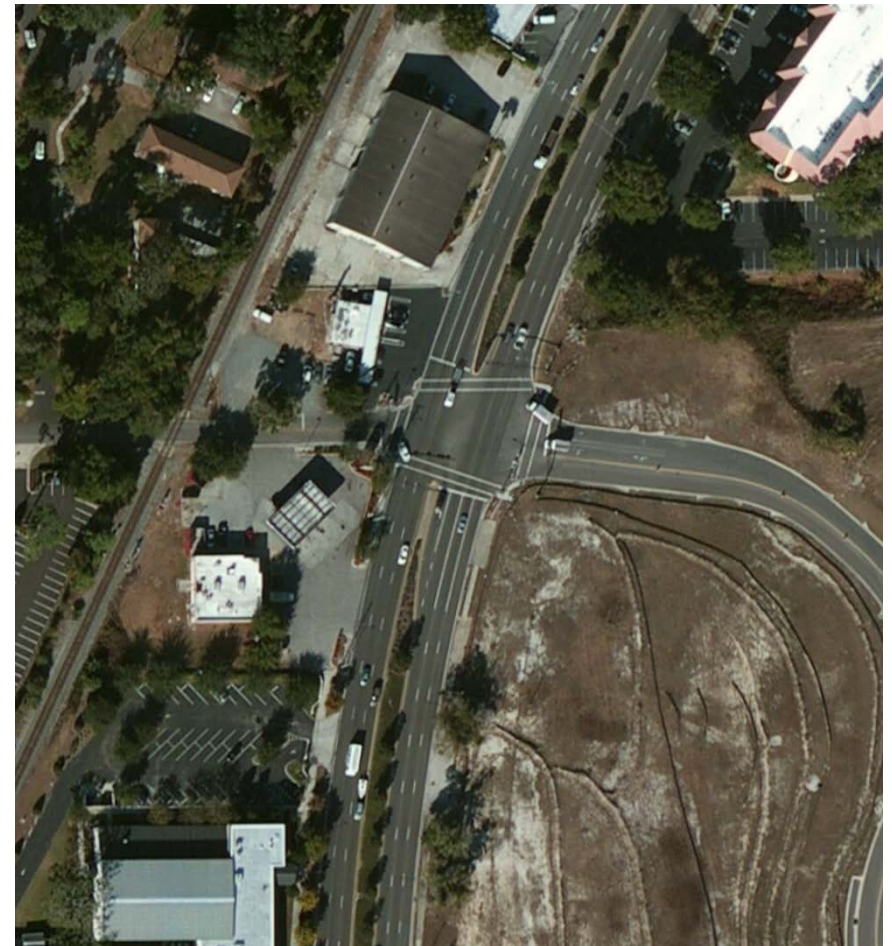


US 17/92 and Sybelia Avenue

The intersection of US 17/92 and Sybelia Avenue is located in the City of Maitland in Orange County, Florida. US 17/92 is a six-lane, divided arterial with a posted speed of 45 mph; it has complete sidewalks on both sides, although they are not delineated or separated across some of the large parking lots fronting the road. Sybelia Avenue two-lane local collector with a posted speed of 25 mph east of the intersection and 20 mph west of it. The land uses in the immediate vicinity of the intersection are strip commercial and vacant land being redveloped into higher-density mixed-use. The intersection is served by one LYNX bus route, and a SunRail station is 1,200 feet to the north along US 17/92.

Manual Counts

Mode	Thur., January 9, 2014 4:00 p.m. to 6:00 p.m.	Sat., January 11, 2014 Noon to 2:00 p.m.
Pedestrians	12 (86%)	9 (47%)
Bicyclists	2 (14%)	10 (53%)
Combined	14	19

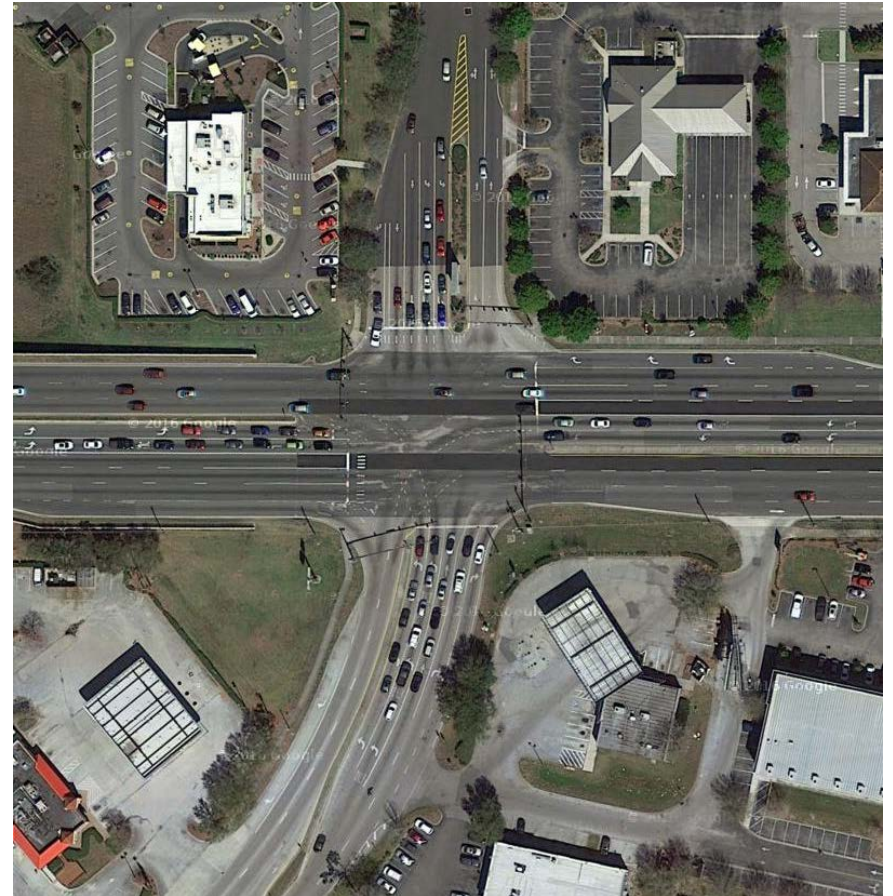


Osceola Parkway and Michigan Avenue

The intersection of Osceola Parkway and Michigan Avenue is located in Osceola County, Florida. Osceola Parkway is a six-lane, divided arterial with a posted speed of 45 mph. Sidewalks on only present both sides of the eastern approaches, and the south side sidewalk does not connect to the intersection. Michigan Avenue is a four-lane collector south of the intersection with a posted speed of 40 mph. There are sidewalks and undesignated bike lanes on both sides, but the east side sidewalk terminates 400 feet south of the intersection and the bike lanes terminate 700 feet south. The land use in the immediate vicinity is strip commercial. North of the intersection is a large retail center, and a SunRail station is under construction 900 feet to the northwest. The intersection is served by one LYNX bus route.

Manual Counts

Mode	Thur., September 11, 2014 4:00 p.m. to 6:00 p.m.	Sat., September 13, 2014 Noon to 2:00 p.m.
Pedestrians	12 (92%)	20 (87%)
Bicyclists	1 (8%)	3 (13%)
Combined	13	23

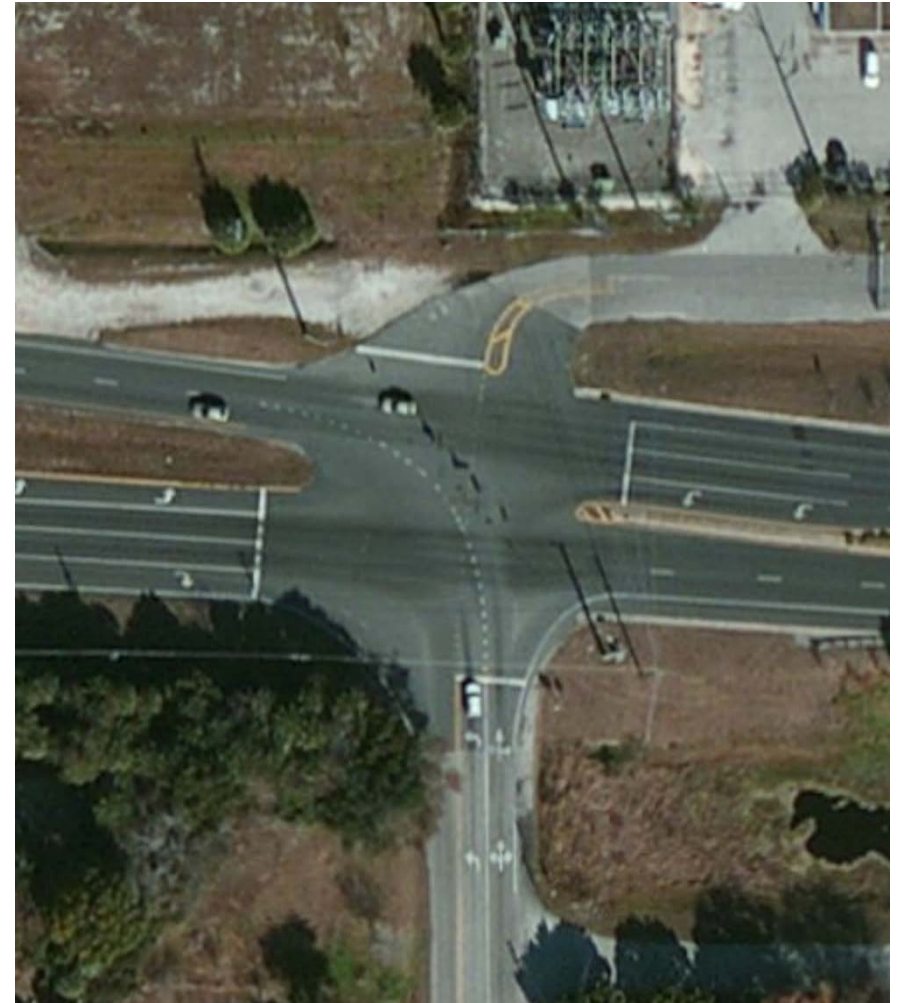


W. 1st Street (SR 46) and Airport Boulevard

The intersection of West 1st Street (SR 46) and Airport Boulevard is located in Seminole County, Florida. SR 46 is a four-lane, divided arterial with an rural cross-section and a posted speed of 55 mph; it has paved shoulders, and has sidewalks on both sides only on the western approaches to the intersection. Only the west leg of the intersection provides a marked and signalized crosswalk. Airport Boulevard is a two-lane rural collector with a posted speed of 35 mph and no sidewalks. North of the intersection is the Sanford SunRail station, which provides a walkway along the west side of the parking lot connecting to the highway. The land uses in the immediate vicinity of the intersection are industrial and vacant land. The intersection is served by two LYNX bus routes.

Manual Counts

Mode	Thur., January 9, 2014 4:00 p.m. to 6:00 p.m.	Sat., January 11, 2014 Noon to 2:00 p.m.
Pedestrians	2 (50%)	0 (0%)
Bicyclists	2 (50%)	2 (100%)
Combined	4	16
	Thur., September 11, 2014 4:00 p.m. to 6:00 p.m.	Sat., September 13, 2014 Noon to 2:00 p.m.
Pedestrians	5 (36%)	1 (25%)
Bicyclists	9 (64%)	3 (75%)
Combined	14	4
Dates Combined		
Total Ped	7 (39%)	1 (17%)
Total Bike	11 (61%)	5 (83%)
Total Combined	18	6



Detector Counts

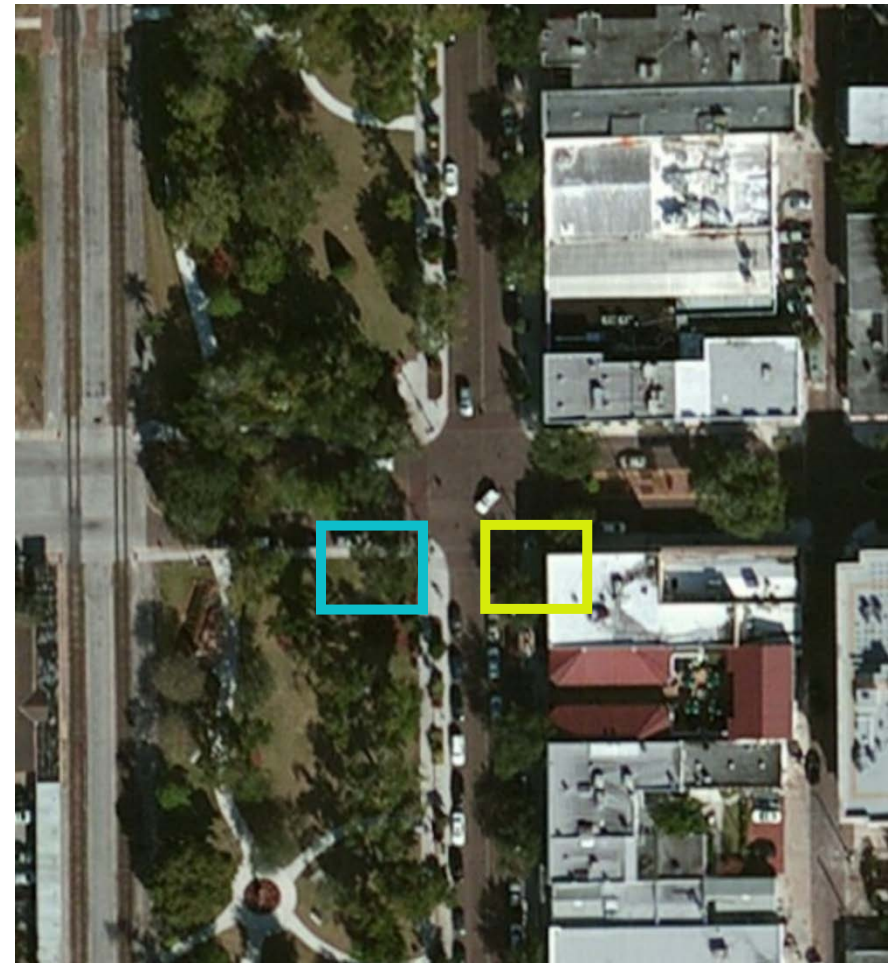


Park Avenue and Morse Boulevard

The intersection of Park Avenue and Morse Boulevard is located in the City of Winter Park in Orange County, Florida. Park Avenue is a two-lane, undivided local urban street with a posted speed of 20 mph. It has complete sidewalks and parallel on-street parking on both sides. Morse Boulevard is a two-lane, divided local collector with complete sidewalks and parallel on-street parking on both sides and a posted speed of 20 mph. The land use in the immediate vicinity is urban village mixed-use, with an urban park west of the intersection. The Winter Park SunRail station is 300 feet to the west, and New York Avenue on block east is served by six LYNX bus routes.

Pyro Box Detector Counts

Count Dates	Counter Location	Counter Location	Totals
Wed. October 7, 2015 to Tues. November 10, 2015	Southeast Corner	Southwest Corner	
Total	129,251	50,570	179,821
Peak Day	Sat, Oct 10, 2015 (7,238)	Sun, Oct 11, 2015 (7,402)	
Peak Hour	1:00 PM (400)	1:00 PM (145)	
Minimum Day	Tue, Oct 27, 2015 (1,765)	Tue, Oct 27, 2015 (360)	
Max Day of the Week	Saturday	Saturday	
Hourly Average	154	60	214
Daily Average	3,693	1,445	5,138
Monthly Estimate	112,402	43,978	156,380



Orange Avenue (SR 527) and Robinson Street (SR 526)

The intersection of Orange Avenue (SR 527) and Robinson Street (SR 526) is located in the City of Orlando in Orange County, Florida. SR 527 is a four-lane, one-way arterial with a posted speed of 25 mph. It has complete sidewalks and parallel, on-street parking on both sides. Robinson Street is a four-lane, undivided collector with no center turn lane, complete sidewalks on both sides, and a posted speed of 30 mph. The land use in the immediate vicinity is dense urban mixed use. The intersection is served by ten LYNX bus routes and is a quarter-mile walk from LYNX central Station and SunRail.

Pyro Box Detector Counts

Count Dates	Counter Location	Counter Location	
Mon., August 18, 2015 to Mon., September 8, 2015	Southeast Corner	Southwest Corner	Totals
Total	16,465	20,079	36,544
Peak Day	Thu, Sep 3, 2015 (992)	Sun, Aug 23, 2015 (1,490)	
Peak Hour	12:00 Noon (63)	12:00 Noon (100)	
Minimum Day	Sun, Aug 30, 2015 (501)	Mon, Sep 7, 2015 (645)	
Max Day of the Week	Friday	Sunday	
Hourly Average	31	38	69
Daily Average	748	913	1,661
Estimated Monthly Average	22,780	27,780	50,560



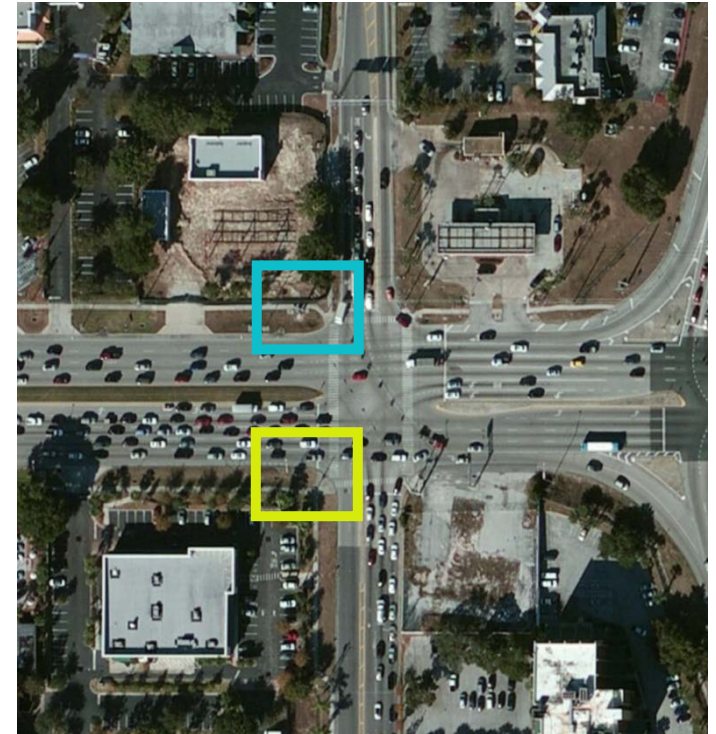
Semoran Boulevard (SR 436) and Wymore Road

The intersection of Semoran Boulevard (SR 436) and Wymore Road is located in the City of Altamonte Springs in Seminole County, Florida. SR 436 is an eight-lane, divided arterial with a posted speed of 45 mph. West of the intersection it has designated bike lanes and complete sidewalks on both sides. Immediately east of the intersection is an interchange with I-4, with paved shoulders and a sidewalk only on the north side (pedestrians may utilize the paved shoulder on the overpass itself). Wymore Road is a two-lane, undivided local collector street with complete sidewalks on the west side, no sidewalk on the east side, and a posted speed of 35 mph. The land use in the immediate vicinity is primarily strip commercial, with multi-family complexes 2,000 feet to the south. The intersection is served by two LYNX bus routes.

This intersection will be reconfigured during the I-4 reconstruction to prohibit north/south motor vehicle traffic, and providing a tunnel under SR 436 for pedestrians and bicyclists.

Pyro Box Detector Counts

Count Dates	Counter Location	Counter Location	
Mon., August 18, 2015 to Mon. September 8, 2015	Southwest Corner	Northwest Corner	Totals
Total	29,569	5,698	35,267
Peak Day	Tue, Sep 8, 2015 (3,682)	Tue, Aug 25, 2015 (346)	
Peak Hour	10:00 PM (97)	12:00 PM (21)	
Minimum Day	Thu, Sep 3, 2015 (613)	Sun, Aug 30, 2015 (183)	
Max Day of the Week	Monday	Friday	
Hourly Average	56	11	67
Daily Average	1,344	259	1,603
Monthly Estimate	40,909	7,883	48,792

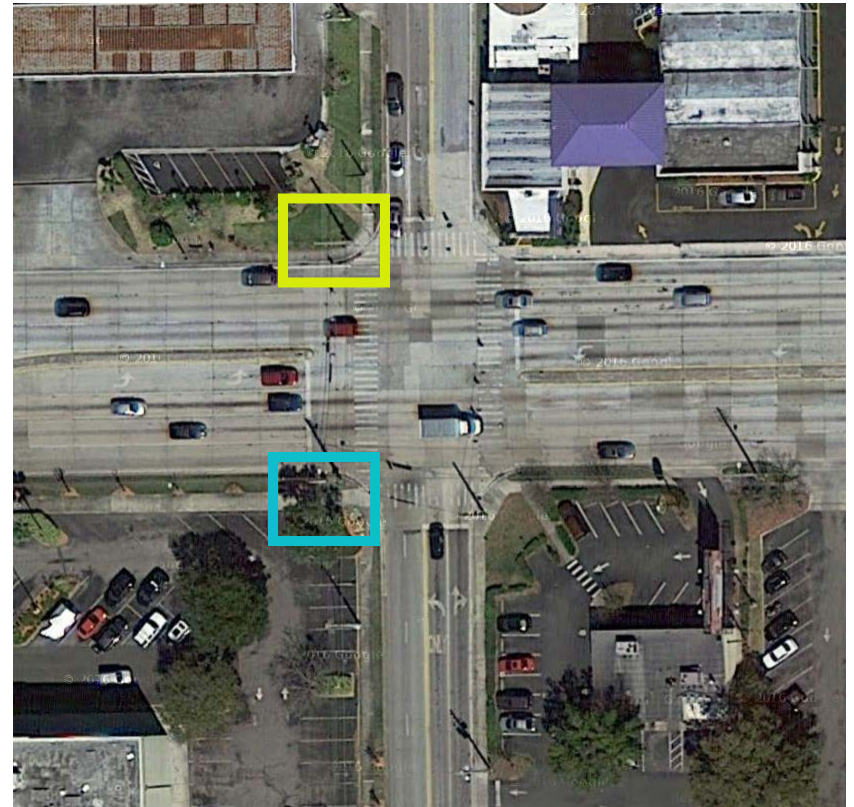


Colonial Drive (SR 50) and Primrose Avenue

The intersection of Colonial Drive (SR 50) and Primrose Avenue is located in the City of Orlando in Orange County, Florida. SR 50 is a six-lane, divided arterial with a posted speed of 40 mph. It has complete sidewalks on both sides. South of the intersection, Primrose Avenue is a four-lane, undivided local collector street with complete sidewalks on both sides, and a posted speed of 30 mph. North of the intersection Primrose is a two-lane local street with a short sidewalk only on the west side of the street. The land use in the immediate vicinity is primarily strip commercial. The intersection is served by two LYNX bus routes.

Pyro Box Detector Counts

Count Dates	Counter Location	Counter Location	Totals
Thur. November 19, 2015 to Mon. December 14, 2015	Northwest Corner	Southwest Corner	
Total	12,027	11,014	23,041
Peak Day	Fri, Nov 20, 2015 (627)	Fri, Dec 11, 2015 (622)	
Peak Hour	5:00 AM (11)	3:00 PM (3)	
Minimum Day	Thu, Nov 26, 2015 (161)	Thu, Nov 26, 2015 (262)	
Max Day of the Week	Friday	Friday	
Hourly Average	19	18	37
Daily Average	463	424	887
Monthly Estimate	14,080	12,894	26,974

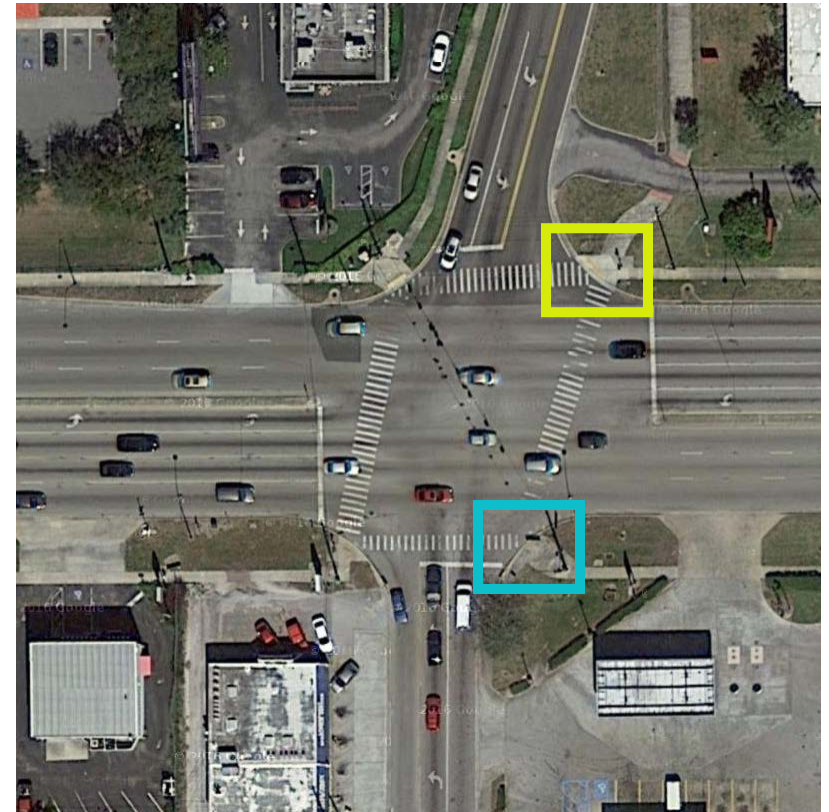


Vine Street (US 192) and Dyer Boulevard

The intersection of Vine Street (US 192) and Dyer Boulevard is located in the City of Kissimmee in Osceola County, Florida. US 192 is a six-lane, divided arterial with a posted speed of 45 mph. It has complete sidewalks on both sides. Dyer Boulevard is a two-lane, local collector street with complete sidewalks on both sides, and a posted speed of 30 mph. The land use in the immediate vicinity is primarily strip commercial. The intersection is served by two LYNX bus routes.

Pyro Box Detector Counts

Count Dates	Counter Location	Counter Location	Totals
Fri., October 10, 2015 to Mon., November 10, 2015	Northeast Corner	Southeast Corner	
Total	22,009	3,157	25,166
Peak Day	Tue, Nov 3, 2015 (1,357)	Fri, Oct 30, 2015 (129)	
Peak Hour	7:00 PM (45)	8:00 AM (9)	
Minimum Day	Wed, Oct 28, 2015 (425)	Sat, Nov 7, 2015 (70)	
Max Day of the Week	Thursday	Friday	
Hourly Average	29	4	33
Daily Average	688	99	787
Monthly Estimate	20,934	3,003	23,937

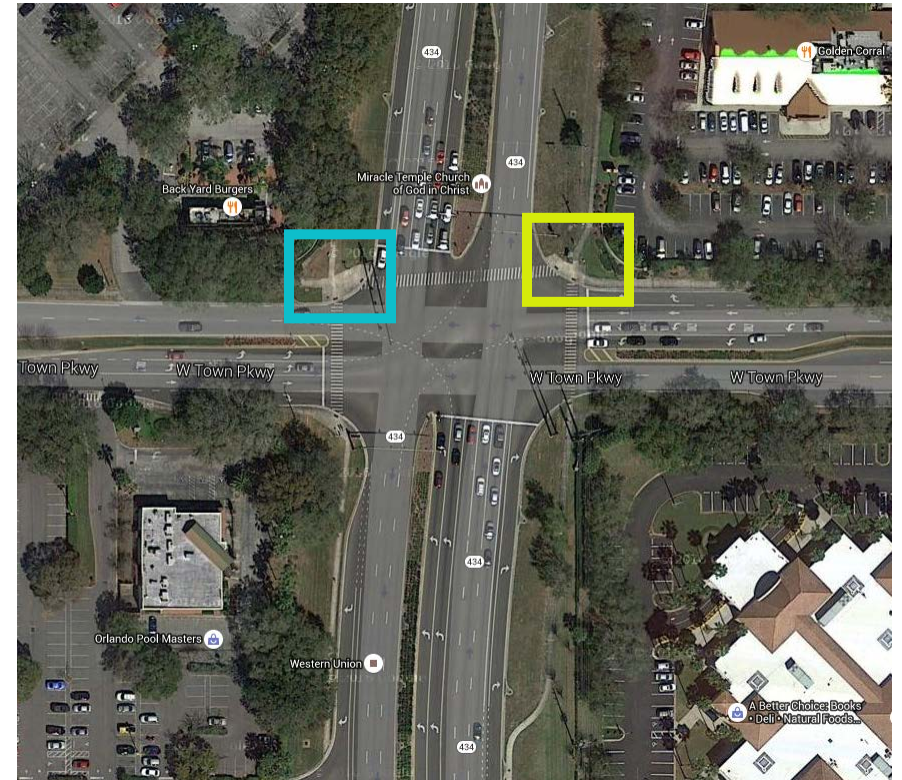


SR 434 and West Town Parkway

The intersection of SR 434 and West Town Parkway is located in the City of Altamonte Springs in Seminole County, Florida. SR 434 is a six-lane, divided arterial with a posted speed of 45 mph. It has complete sidewalks and undesignated bike lanes on both sides. West Town Parkway is a four-lane collector street with complete sidewalks on both sides, and a posted speed of 35 mph. The land use in the immediate vicinity is primarily strip commercial with some multi-family housing. The intersection is served by three LYNX bus routes.

Pyro Box Detector Counts

Count Dates	Counter Location	Counter Location	Totals
Thur. November 19, 2015 to Mon. December 14, 2015	Northeast Corner	Northwest Corner	
Total	1,592	14,348	15,940
Peak Day	Thu, Nov 19, 2015 (310)	Mon, Nov 23, 2015 (1,393)	
Peak Hour	2:00 PM (5)	2:00 PM (14)	
Minimum Day	Sat, Dec 12, 2015 (27)	Wed, Dec 9, 2015 (138)	
Max Day of the Week	Thursday	Monday	
Hourly Average	3	23	26
Daily Average	61	552	613
Monthly Estimate	1,864	16,797	18,661

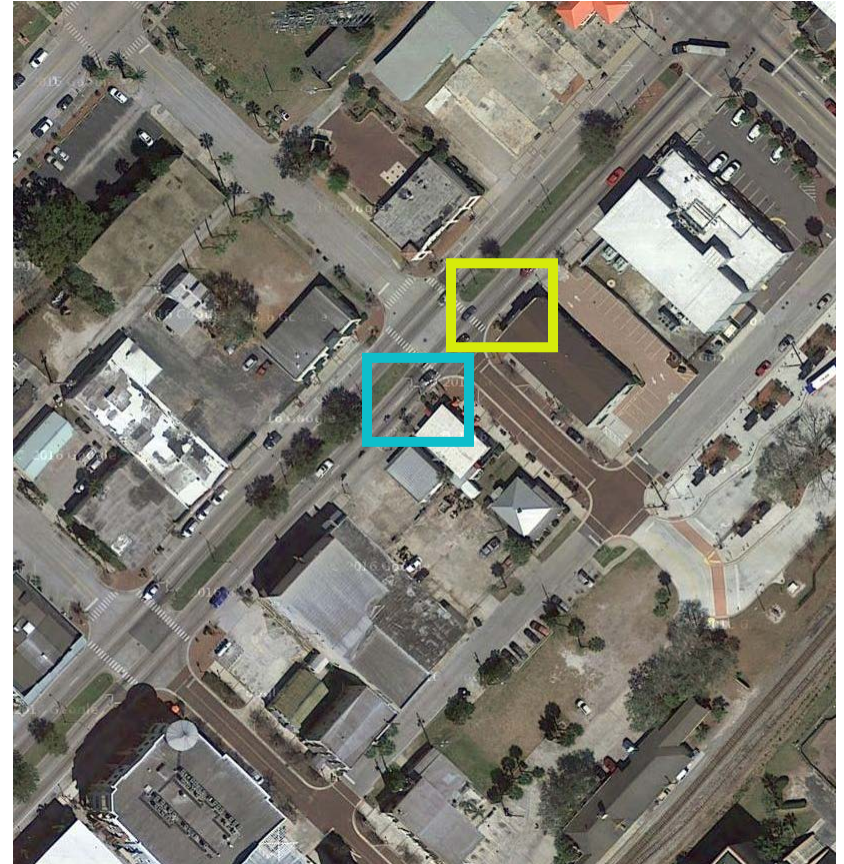


Broadway Avenue and Sproule Street

The intersection of Broadway Avenue and Sproule Street is located in the City of Kissimmee in Osceola County, Florida. Broadway Avenue is a four-lane, divided collector with a posted speed of 30 mph. It has parallel on-street parking and complete sidewalks on both sides. Sproule Street is a two-lane, local street with parallel on-street parking and complete sidewalks on both sides, and a posted speed of 25 mph. The intersection is stop controlled only for Sproule Street, and has bulb-outs at all four corners and marked crosswalks on all four legs. The land use in the immediate vicinity is town center commercial. The intersection is one block north of the planned Kissimmee SunRail station and a LYNX superstop served by ten bus routes.

Pyro Box Detector Counts

Count Dates	Counter Location	Counter Location	
Sat., January 23, 2016 to Thur., February 25, 2016	Southeast Corner	Southwest Corner	Totals
Total	12,876	5,247	18,123
Peak Day	Sat, Feb 13, 2016 (632)	Wed, Feb 17, 2016 (284)	
Peak Hour	12:00 PM (44)	12:00 PM (18)	
Minimum Day	Sun, Jan 24, 2016 (103)	Sat, Feb 6, 2016 (53)	
Max Day of the Week	Friday	Wednesday	
Hourly Average	16	6	22
Daily Average	379	154	533
Monthly Estimate	11,527	4,697	16,224

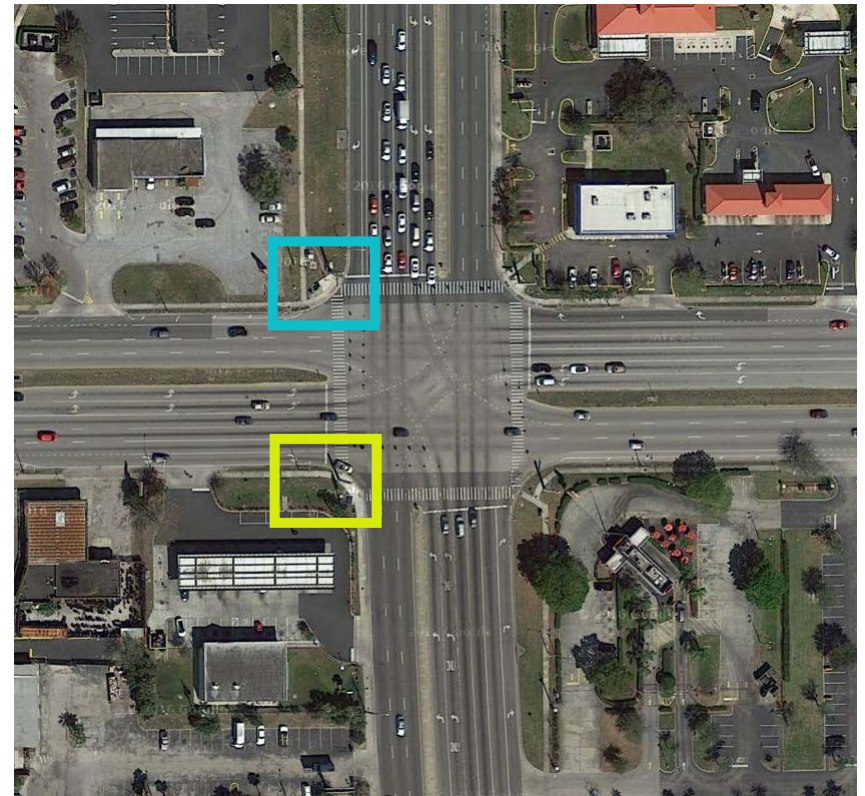


Colonial Drive (SR 50) and John Young Pkwy. (SR 423)

The intersection of Colonial Drive (SR 50) and John Young Parkway (SR 423) is located in the City of Orlando in Orange County, Florida. SR 50 is a six-lane, divided arterial with a posted speed of 45 mph. It has complete sidewalks and undesignated bike lanes on both sides. John Young Parkway is a six-lane, divided arterial with complete sidewalks and a posted speed of 45 mph. The land use in the immediate vicinity is strip commercial. The intersection is served by four LYNX bus routes.

Pyro Box Detector Counts

Count Dates	Counter Location	Counter Location	Totals
Mon., August 18, 2015 to Mon., September 8, 2015	Southwest Corner	Northwest Corner	
Total	4,463	7,083	11,546
Peak Day	Thu, Sep 3, 2015 (269)	Thu, Sep 3, 2015 (498)	
Peak Hour	12:00 Noon (15)	4:00 P.M. (26)	
Minimum Day	Sun, Aug 23, 2015 (135)	Sun, Aug 23, 2015 (159)	
Max Day of the Week	Thursday	Friday	
Hourly Average	8	13	21
Daily Average	203	322	525
Estimated Monthly Average	6,175	9,799	15,974

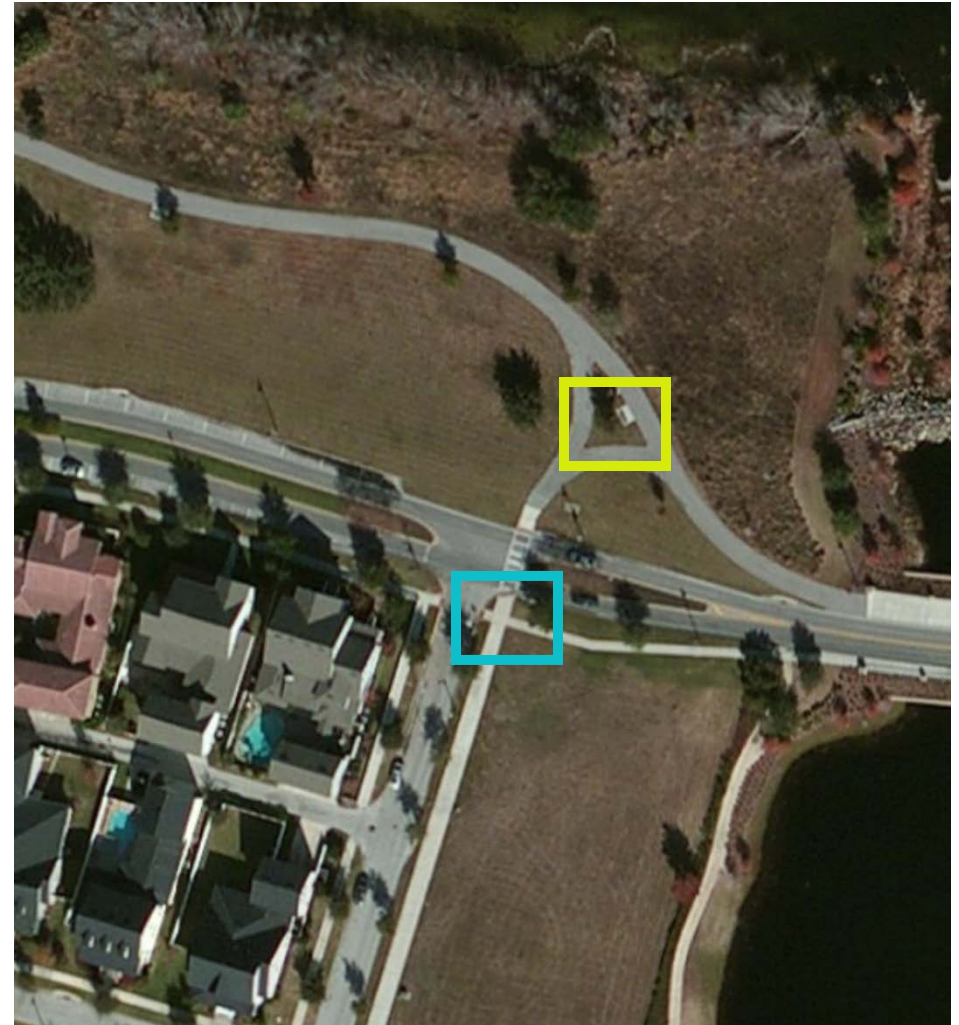


Lake Baldwin Lane and Foss Avenue

The intersection of Lake Baldwin Lane and Foss Avenue is located in the City of Orlando in Orange County, Florida. Lake Baldwin Lane is a two-lane, divided local collector street with a posted speed of 25 mph. It has parallel on-street parking on both sides, a sidewalk on the south side, and a shared use path on the north side. Foss Avenue is a two-lane, neighborhood street with parallel on-street parking on both sides, a sidewalk on the west side, a shared use path on the east side and a posted speed of 25 mph. Only one of the three crosswalks at the intersection is marked. The land use in the immediate vicinity is medium-density residential. The Baldwin Park town center is a quarter-mile to the west. The area is not served by transit.

Pyro Box Detector Counts

Count Dates	Counter Location	Counter Location	Totals
Tues., October 7, 2015 to Tues., November 10, 2015	North Side	South Side	
Total	6,426	9,767	16,193
Peak Day	Sun, Nov 8, 2015 (673)	Sat, Oct 31, 2015 (1,058)	
Peak Hour	7:00 A.M. (31)	7:00 A.M. (24)	
Minimum Day	Wed, Nov 4, 2015 (101)	Fri, Nov 6, 2015 (127)	
Max Day of the Week	Sunday	Saturday	
Hourly Average	8	12	20
Daily Average	184	279	463
Estimated Monthly Average	5,588	8,494	14,082



Colonial Drive (SR 50) and Magnolia Avenue

The intersection of Colonial Drive (SR 50) and Magnolia Avenue is located in the City of Orlando in Orange County, Florida. SR 50 is a four-lane, arterial with a center turn lane, parallel on-street parking, and a posted speed of 40 mph. It has complete sidewalks on both sides. Magnolia Avenue is a three-lane, one-way urban arterial with complete sidewalks and parallel on-street parking on both sides, a designated bike lane, and a posted speed of 30 mph. The land use in the immediate vicinity is office, commercial and multi-family housing. The intersection is served by four LYNX bus routes. A bus rapid transit circulator is planned for the corridor.

Pyro Box Detector Counts

Count Dates	Counter Location	Counter Location	Totals
Thur. November 19, 2015 to Mon. December 14, 2015	Southeast Corner	Northeast Corner	
Total	4,017	6,140	10,157
Peak Day	Thu, Nov 19, 2015 (260)	Fri, Nov 27, 2015 (332)	
Peak Hour	3:00 PM (18)	10:00 AM (23)	
Minimum Day	Sun, Nov 29, 2015 (84)	Thu, Nov 26, 2015 (96)	
Max Day of the Week	Tuesday	Friday	
Hourly Average	6	10	16
Daily Average	155	236	391
Monthly Estimate	4,703	7,188	11,891

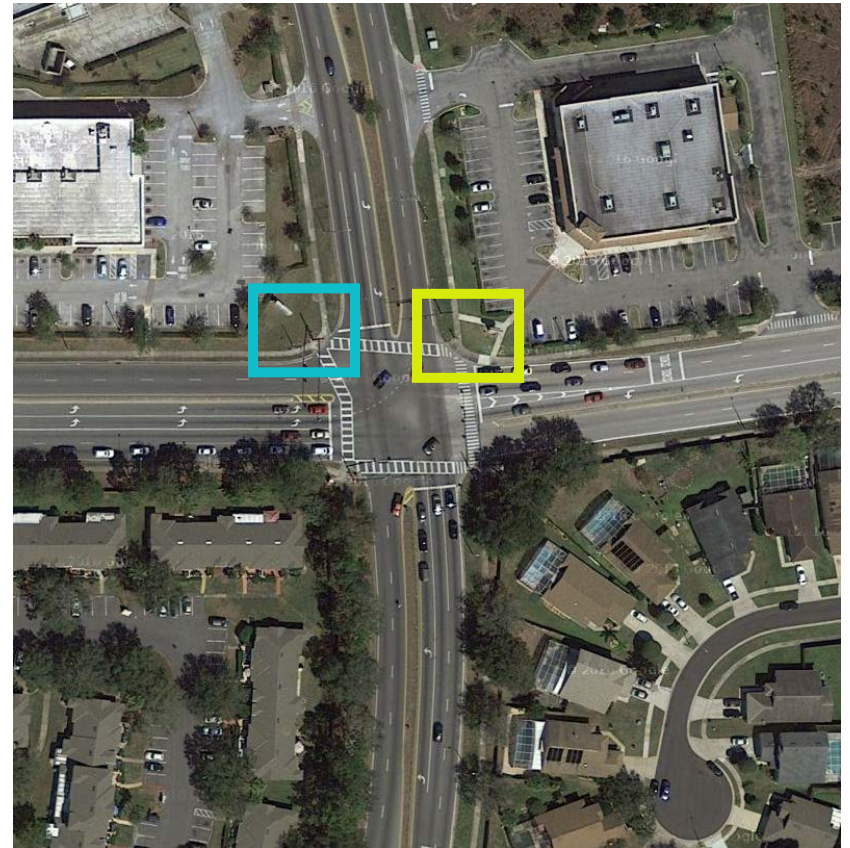


Landstar Boulevard and Town Center Boulevard

The intersection of Landstar Boulevard and Town Center Boulevard is located in Orange County, Florida. Landstar Boulevard is a four-lane, divided collector with a posted speed of 45 mph and complete sidewalks on both sides. Town Center Boulevard is a four-lane, divided collector with a posted speed of 45 mph and complete sidewalks on both sides. The intersection has marked crosswalks and pedestrian signals on all four sides. The land use in the immediate vicinity is strip commercial and single-family residential. The intersection is served by two LYNX bus routes.

Pyro Box Detector Counts

Count Dates	Counter Location	Counter Location	
Sat., January 30, 2016 to Tues., February 23, 2016	Northeast Corner	Northwest Corner	Totals
Total	2,746	5,930	8,676
Peak Day	Sat, Feb 20, 2016 (534)	Fri, Feb 19, 2016 (551)	
Peak Hour	5:00 PM (18)	11:00 AM (34)	
Minimum Day	Sun, Feb 14, 2016 (29)	Sun, Jan 31, 2016 (18)	
Max Day of the Week	Friday	Friday	
Hourly Average	5	10	15
Daily Average	110	237	347
Monthly Estimate	3,343	7,220	10,563

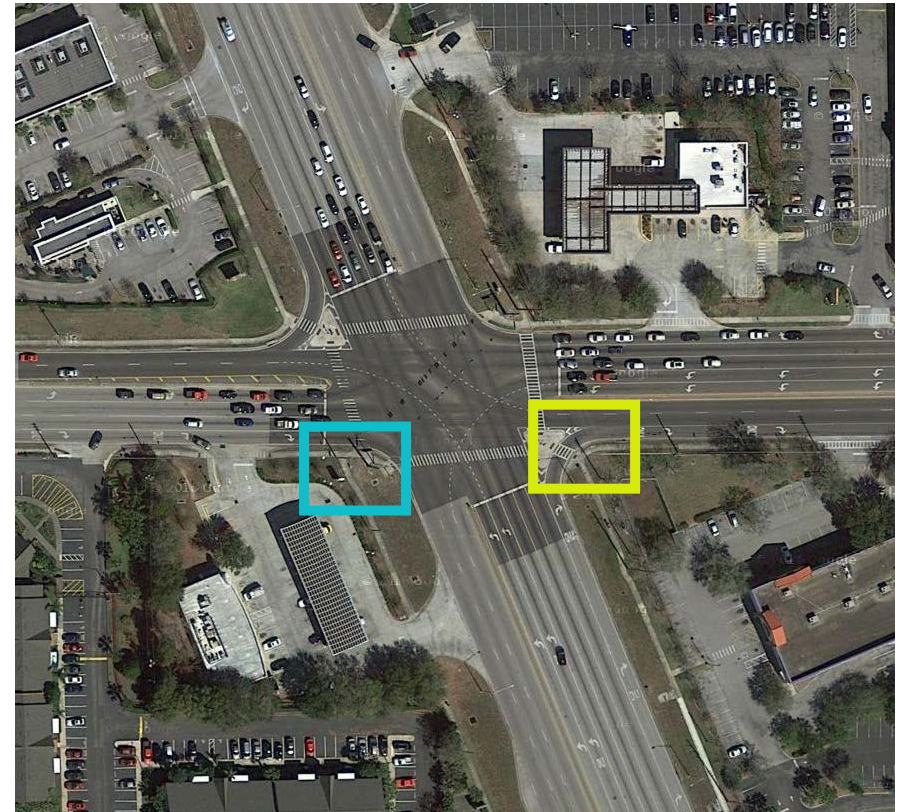


Semoran Boulevard (SR 436) and Howell Branch Road

The intersection of Semoran Boulevard (SR 436) and Howell Branch Road is located in the City of Casselberry in Seminole County, Florida. SR 436 is a six-lane, divided arterial with a posted speed of 50 mph. It has complete sidewalks on both sides. Howell Branch Road is a four-lane, collector street with complete sidewalks on both sides and a posted speed of 40 mph. There are pedestrian signals and marked crosswalks on all legs of the intersection. The land use in the immediate vicinity is strip commercial and multi-family. The intersection is served by one LYNX bus route.

Pyro Box Detector Counts

Count Dates	Counter Location	Counter Location	Totals
Wed. October 7, 2015 to Tues. November 10, 2015	Southeast Corner	Southwest Corner	
Total	3,128	6,241	9,369
Peak Day	Thu, Nov 5, 2015 (118)	Fri, Oct 30, 2015 (228)	
Peak Hour	6:00 PM (7)	1:00 PM (14)	
Minimum Day	Mon, Nov 9, 2015 (47)	Sun, Nov 1, 2015 (116)	
Max Day of the Week	Thursday	Friday	
Hourly Average	4	7	11
Daily Average	89	178	267
Monthly Estimate	2,720	5,427	8,147

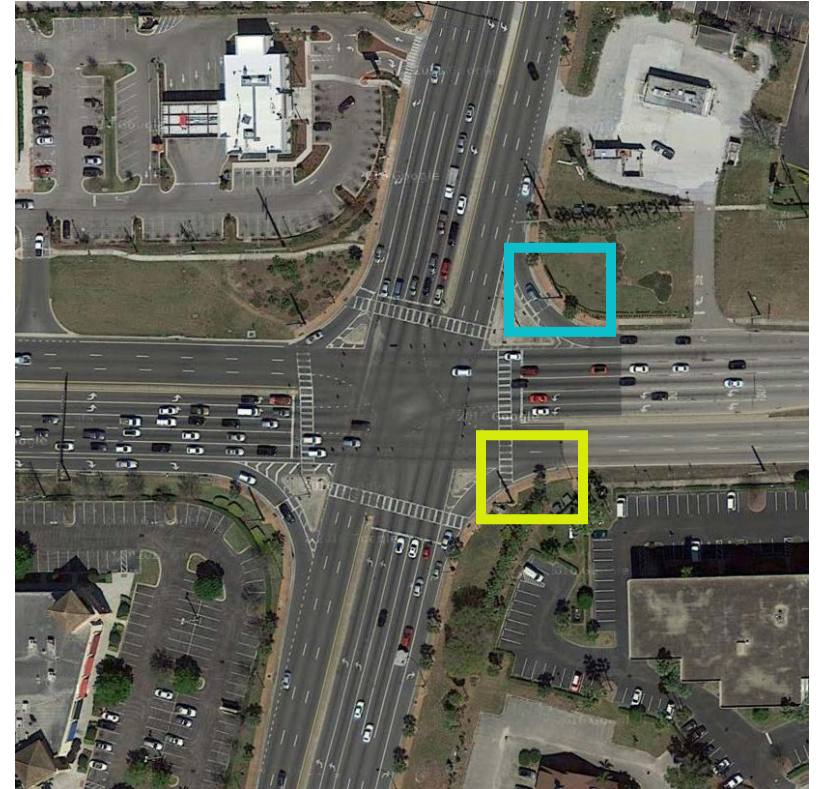


Sand Lake Road (SR 482) and South Orange Blossom Trail (US 17/92/441)

The intersection of Sand Lake Road (SR 482) and South Orange Blossom Trail (US 17/92/441) is located in Orange County, Florida. SR 482 is a six-lane, divided arterial with a posted speed of 45 mph. East of the intersection it has complete sidewalks on both sides. West of the intersection it has a sidewalk only on the north side, and paved shoulders. US 17/92/441 is a six-lane, divided arterial with complete sidewalks on both sides, and a posted speed of 45 mph. The intersection is served by marked and signalized crosswalks on all four sides. The land use in the immediate vicinity is primarily strip commercial. The intersection is served by seven LYNX bus routes.

Pyro Box Detector Counts

Count Dates	Counter Location	Counter Location	Totals
Sat., January 23, 2016 to Fri., February 19, 2016	Southeast Corner	Northeast Corner	
Total	4,722	2,691	7,413
Peak Day	Fri, Feb 19, 2016 (800)	Fri, Feb 19, 2016 (302)	
Peak Hour	3:00 PM (27)	4:00 PM (13)	
Minimum Day	Sun, Feb 7, 2016 (61)	Sun, Feb 7, 2016 (47)	
Max Day of the Week	Friday	Friday	
Hourly Average	7	4	11
Daily Average	169	96	265
Monthly Estimate	5,133	2,925	8,058

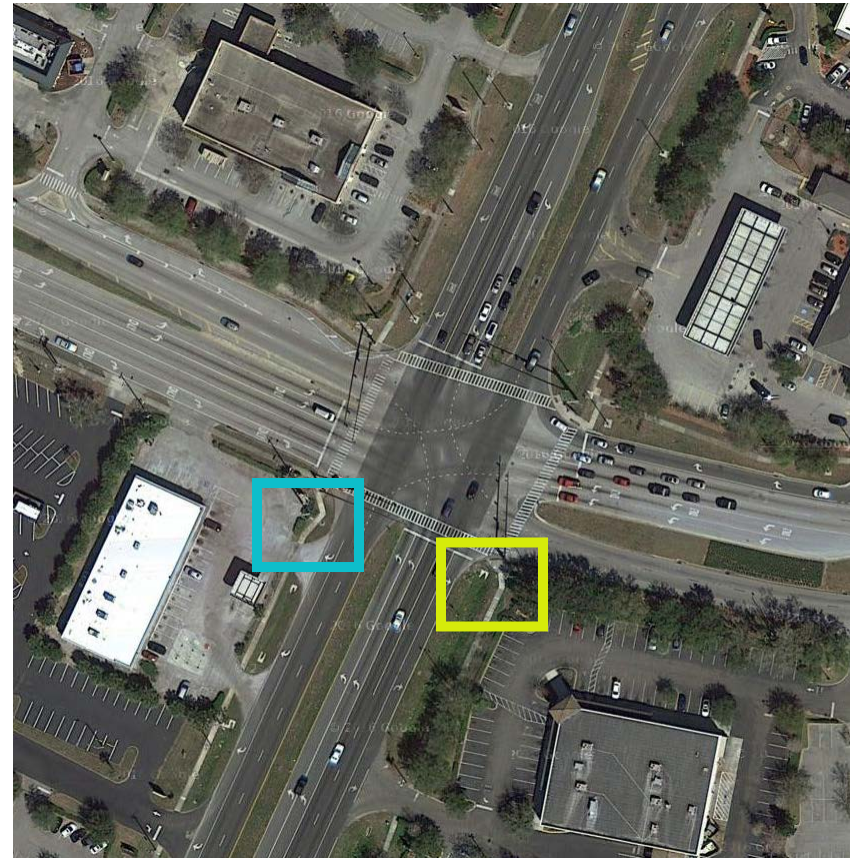


Orlando Drive (US 17/92) and Lake Mary Boulevard

The intersection of Orlando Drive (US 17/92) and Lake Mary Boulevard is located in the City of Sanford in Seminole County, Florida. Orlando Drive is a four-lane, divided arterial with a posted speed of 45 mph. It has a rural cross section with paved shoulders and complete sidewalks on both sides. Lake Mary Boulevard is a four-lane, arterial street with complete sidewalks on both sides, and a posted speed of 45 mph. East of the intersection it has undesignated bike lanes. The intersection has marked crosswalks and pedestrian signals on all four legs. The land use in the immediate vicinity is primarily strip commercial. The intersection is served by three LYNX bus routes.

Pyro Box Detector Counts

Count Dates	Counter Location	Counter Location	Totals
Sun., January 24, 2016 to Tues., February 23, 2016	Southeast Corner	Southwest Corner	
Total	4,774	2,096	6,870
Peak Day	Sun, Feb 21, 2016 (822)	Sat, Feb 13, 2016 (116)	
Peak Hour	4:00 PM (11)	3:00 PM (6)	
Minimum Day	Sun, Feb 7, 2016 (47)	Thu, Jan 28, 2016 (39)	
Max Day of the Week	Saturday	Friday	
Hourly Average	6	3	9
Daily Average	154	68	222
Monthly Estimate	4,687	2,058	6,745

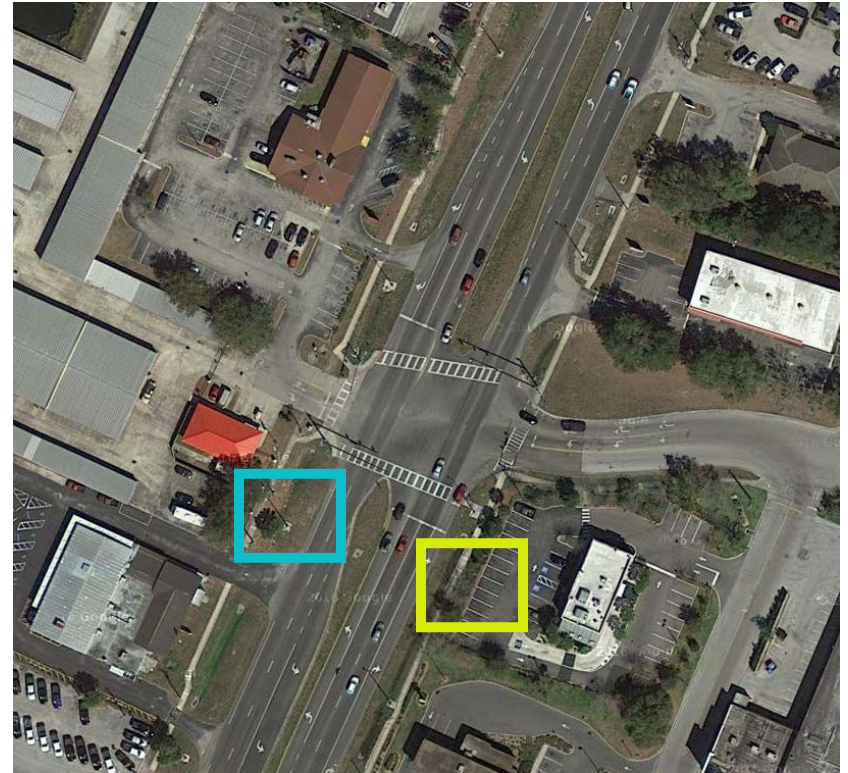


Orlando Drive (US 17/92) and Americana Boulevard

The intersection of Orlando Drive (US 17/92) and Americana Boulevard is located in the City of Sanford in Seminole County, Florida. Orlando Drive is a four-lane, divided arterial with a posted speed of 45 mph. It has a rural cross section with paved shoulders and complete sidewalks on both sides. East of the intersection, Americana Boulevard is a two-lane, local street with a complete sidewalk only on the south side, and a posted speed of 25 mph. The west leg of the intersection is a commercial driveway. The intersection has marked crosswalks and pedestrian signals on all four legs. The land use in the immediate vicinity is primarily strip commercial. The intersection is served by two LYNX bus routes.

Pyro Box Detector Counts

Count Dates	Counter Location	Counter Location	
Sat., January 23, 2016 to Sat., February 27, 2016	Southeast Corner	Southwest Corner	Totals
Total	2,776	2,739	5,515
Peak Day	Sat, Jan 23, 2016 (155)	Sat, Jan 23, 2016 (187)	
Peak Hour	4:00 PM (6)	3:00 PM (8)	
Minimum Day	Wed, Jan 27, 2016 (44)	Tue, Feb 23, 2016 (26)	
Max Day of the Week	Saturday	Saturday	
Hourly Average	3	5	8
Daily Average	77	119	196
Monthly Estimate	2,347	3,625	5,972

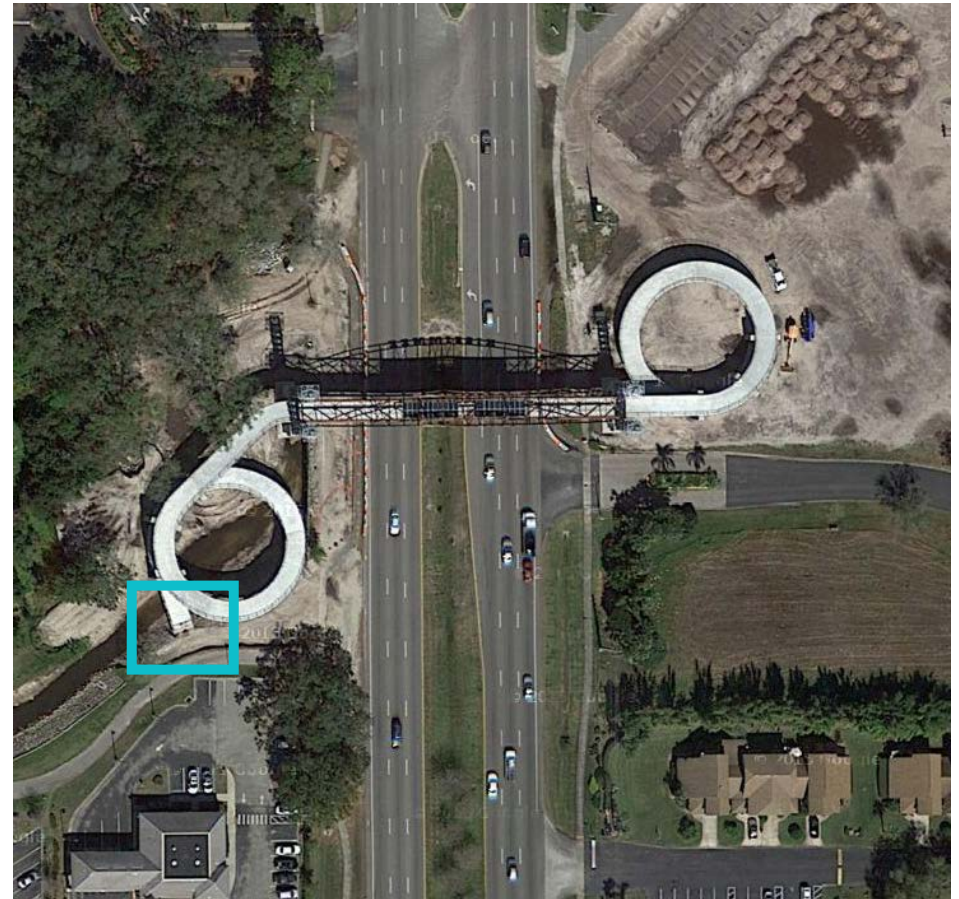


Kissimmee Trail at John Young Parkway

The intersection of John Young Parkway and Kissimmee Trail is located in the City of Kissimmee in Osceola County, Florida. John Young Parkway is a six-lane, divided arterial with a rural cross section, paved shoulders, and a posted speed of 45 mph. It has complete sidewalks on both sides. Kissimmee Trail is a shared use path which crosses John Young Parkway by means of an overpass. The land use in the immediate vicinity is medium-density, multi-family residential. John Young Parkway is served by one LYNX bus route.

Pyro Box Detector Counts

Count Dates	Counter Location
Fri. September 11, 2015 to Mon. October 05, 2015	Kissimmee Trail at John Young Pkwy
Total	4,745
Peak Day	Wed, Sep 16, 2015 (385)
Peak Hour	7:00 PM (24)
Minimum Day	Fri, Sep 11, 2015 (17)
Max Day of the Week	Wednesday
Hourly Average	8
Daily Average	190
Monthly Estimate	5,777



Semoran Boulevard (SR 436) and Cranes Roost Boulevard/ Northlake Boulevard

The intersection of Semoran Boulevard (SR 436) and Cranes Roost Boulevard is located in the City of Altamonte Springs in Seminole County, Florida. SR 436 is an eight-lane, divided arterial with a rural cross section and a posted speed of 45 mph. It has paved shoulders and complete sidewalks on both sides. North of the intersection, Cranes Roost Boulevard is a four-lane, divided local collector street with complete sidewalks on both sides, and a posted speed of 25 mph. South of the intersection, Northlake Boulevard is a four-lane, divided local collector street with complete sidewalks on both sides, and a posted speed of 35 mph. The land use in the immediate vicinity is primarily strip commercial; the Altamonte Mall is a half-mile to the northeast. The crosswalk at the west leg of the intersection is unmarked. The intersection is served by one LYNX bus route.

Pyro Box Detector Counts

Count Dates	Counter Location	Counter Location	Totals
Mon., August 18, 2015 to Mon., September, 8, 2015	Northeast Corner	Southeast Corner	
Total	1,990	1,492	3,482
Peak Day	Thu, Aug 27, 2015 (142)	Tue, Sep 8, 2015 (94)	
Peak Hour	4:00 PM (10)	9:00 AM (6)	
Minimum Day	Sat, Aug 22, 2015 (51)	Sun, Aug 30, 2015 (36)	
Max Day of the Week	Thursday	Tuesday	
Hourly Average	4	3	7
Daily Average	90	68	158
Monthly Estimate	2,753	2,064	4,817

