



Routes 5/20 & Route 364 Multi-Modal Safety & Access Improvement Study

Final Report
June 2013

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Routes 5/20 & Route 364 Multi-Modal Safety & Access Improvement Study

Final Report

Prepared by

C&S Engineers, Inc.

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Routes 5/20 & Route 364 Multi-Modal Safety & Access Improvement Study

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Executive Summary

The purpose of the Routes 5/20 and 364 Multi-Modal Safety and Access Improvement Study is to develop feasible transportation planning and design concepts that will improve safety and accessibility for pedestrians, bicyclists, and motorists, consistent with general community goals and expectations. The study area lies mostly in the Towns of Hopewell and Canandaigua, with a small portion in the City of Canandaigua, in Ontario County. The focus of the study is on the following roadways:

- New York State Routes 5/20: Route 364 to Lakeshore Drive
- New York State Route 364: Routes 5/20 to County Road 18
- Lakeshore Drive: Route 364 to Routes 5/20
- Moran Road: Routes 5/20 to Lakeshore Drive
- Marvin Sands Drive: Route 364 to Lakeshore Drive

The existing conditions inventory was developed through the review of existing studies and documents, the documentation of study area characteristics such as land use, zoning, and environmental considerations, on-site observations during typical weekdays and special events at the Constellation Brands/Marvin Sands Performing Arts Center (CMAC), and an accident analysis of all study roadways. The public was engaged in the process through stakeholder interviews, a public open house held at the Finger Lakes Community College (FLCC), and a public meeting at the County Safety Training Building. A needs assessment was documented based on the information gathered as part of the existing conditions inventory, observations, and the public participation process.

The needs assessment informed the development of capital improvement, service and program, and policy and planning recommendations for the study area. The recommendations are summarized in the table below, organized by the user or transportation mode served, and shown in the recommendations overview map, and roadway cross sections that follow.

Location	Recommendation Description
Intersection/Vehicle Safety Recommendations	
Provide additional intersection-level lighting	Additional lighting is needed along RTS 5/20 from CR 10 to Lakeshore Dr and at the intersections within the study area.
Conduct traffic control warrant analyses	Conduct traffic control warrant analyses at the intersections of Lakeshore Dr with Moran Rd and Marvin Sands Dr.
Realign/add traffic signal heads	Realign/add signal heads at the intersections of RTS 5/20 with RT 364 and CR 10.
Install landscaping to calm traffic & create a signature look to the study area	Provide landscaped buffer areas with ornamental trees to calm traffic & help create a gateway or signature look to the study area.

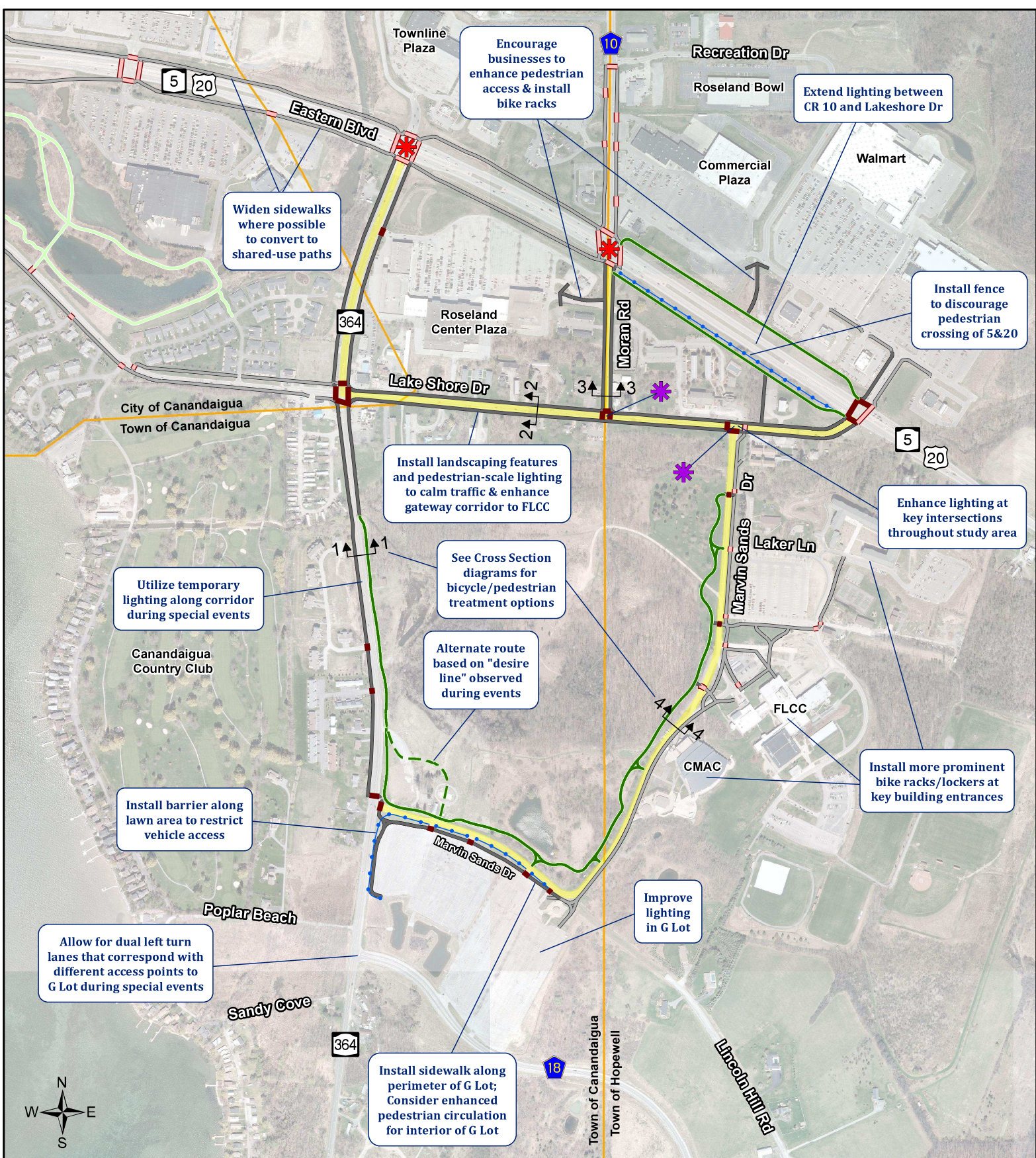


Pedestrian/Bicycle Safety Recommendations	
Close the gaps in sidewalk network	Provide sidewalks on both sides of the following roadways: RTS 5/20 from CR 10 and Lakeshore Dr, RT 364 between RTS 5/20 and Lakeshore Dr, Moran Rd, and Lakeshore Dr. Provide sidewalk on the west side of Route 364 between Lakeshore Dr and Marvin Sands Dr and along G lot. Provide pedestrian accommodations through shared-use path on the east side of RT 364 and north/west side of Marvin Sands at FLCC/CMAC. Recommend all sidewalk is 8' in width to accommodate snow removal equipment and heavy traffic during special events.
Install pedestrian level lighting	Pedestrian level lighting is needed along Lakeshore Dr, Moran Rd, Marvin Sands Dr, and on RT 364.
Install enhanced crosswalks	Install enhanced crosswalks through striping or integrated paving techniques at key crossing locations
Install bicycle lanes/shared-use path throughout study area	Install bicycle lanes on Lakeshore Dr and Moran Road. Install a shared-use path on the east side of RT 364 and north/west side of Marvin Sands at FLCC/CMAC.
Install bicycle infrastructure throughout the study area	Coordinate with residential/commercial property owners to provide additional bike racks throughout the study area.
	Provide additional bike racks at FLCC with shelters & options for more secure storage.
	Install bike racks on CATS buses.
Install permanent barrier along RTS 5/20 near campus housing and Honors House	To encourage crossing of RTS 5/20 at the intersection with Lakeshore Dr, install permanent barrier (fence) along south side of RTS 5/20 between CR 10 and Lakeshore Dr.
Special Event Recommendations	
Develop 2-3 special event traffic management plans	Due to the variety of times and types of events, multiple event plans should be created to accommodate different needs (regional vs local draw, tailgating vs last minute arrivals, etc).
Special event communications improvements	Improve communications (signage, social media, wireless communications, etc) between CMAC, law enforcement, parking staff & public regarding parking availability to improve traffic flow.
Update CMAC Directions & Parking webpage	Include access map showing alternative routes, parking map with fees, link to sign up for social media
Traffic flow improvements @ CR 18 parking access	Allow for dual left turns from RT 364 onto CR 18 that direct each lane into different access points into G Lot to improve traffic flow.
Vehicular/pedestrian safety - install permanent barriers along Marvin Sands at G Lot	To eliminate access for vehicles from G Lot to Marvin Sands during special events, install permanent barriers with gates at access points.
Pedestrian lighting during special events	Pedestrian-level lighting is recommended on RT 364 south of Lakeshore Dr for special events (accommodated with permanent lights that are pre-programmed and only one late at night during special events) & improve lighting in G lot.



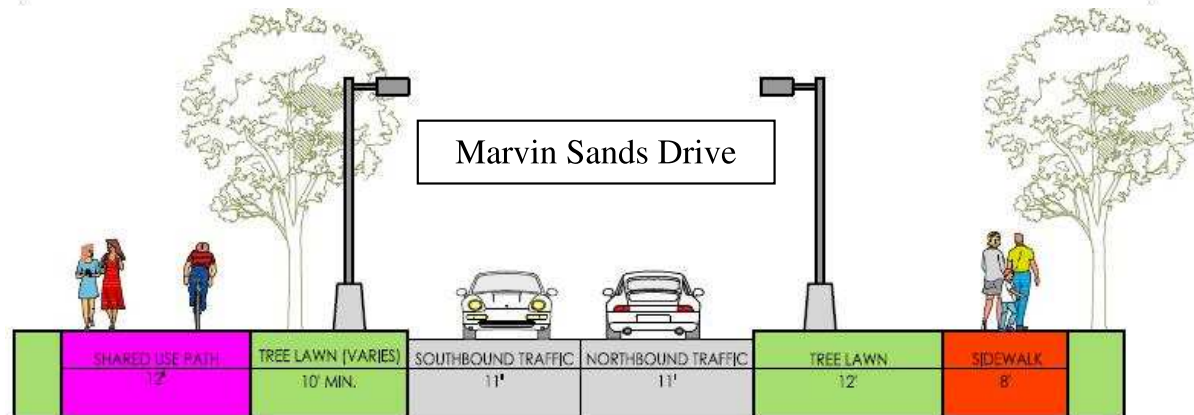
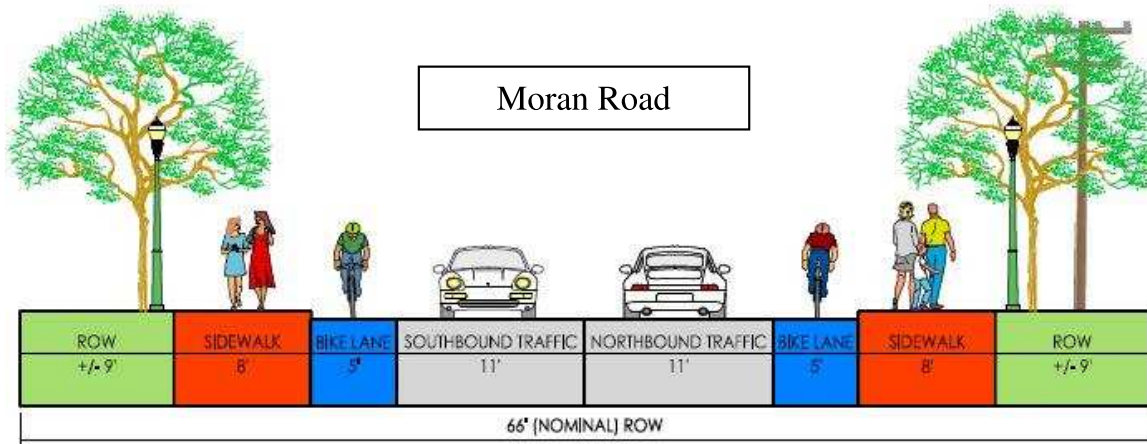
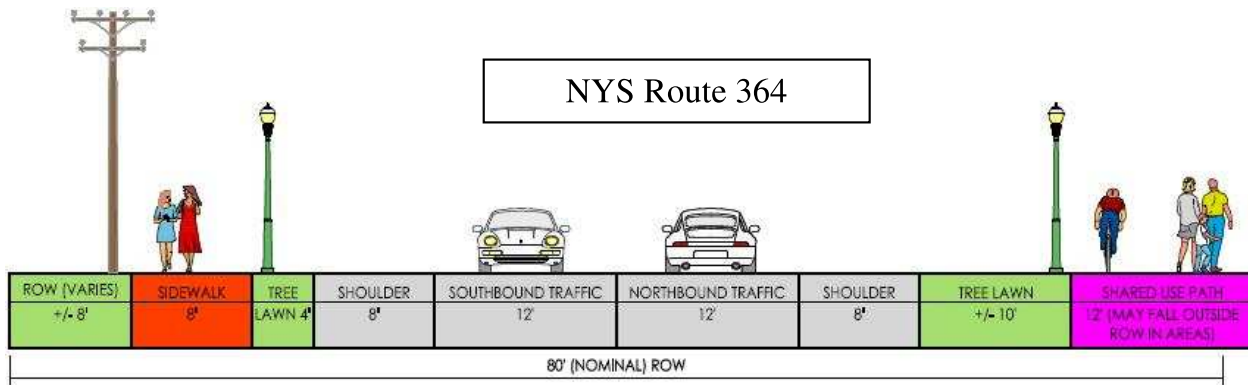
Service & Program Recommendations	
Market & promote existing CATS services	Better inform the public on CATS existing services - routes, service times, stops, prices, etc. - through website, social media, printed information at FLCC or other commercial establishments, etc.
Provide additional CATS routes and service times	Offer more direct routes for shorter travel times with more service times. Additional routes requested were between FLCC campuses, CMAC events, between FLCC and Main St in downtown Canandaigua.
Market & promote active transportation and transportation demand management at FLCC	Educate & promote the benefits of active transportation to the public & FLCC employees/students.
	Establish transportation demand management programs & incentives to promote alternative modes of transportation for FLCC employees and students.
	Educate the public on the rules of the road and safety regulations when it comes to walking and biking.
	Recommendation Description
Policy & Planning Recommendations	
Strengthen bicycle & pedestrian supportive code in Town of Canandaigua	Existing language in Town of Canandaigua code notes that installation of sidewalks and paths are as required by Planning Board discretion. Need language to address bicycle parking/infrastructure in site plan design criteria. Need to address the process & financial details that will apply if they seek to improve the existing sidewalk system.
Strengthen bicycle & pedestrian supportive code in Town of Hopewell	Existing Town of Hopewell code mentions some pedestrian accommodations but has little or no mention of accommodating bicyclists. In particular, need to require the provision of bicycle access, circulation, and parking in Site Plans for commercial and mixed-use districts. Provision of sidewalks in residential subdivisions needs to be strengthened to require the developer, not the Planning Board, to demonstrate when sidewalks are not appropriate.
Establish shared maintenance agreement	With 3 different municipalities in the study area, a shared maintenance agreement will clarify the roles and responsibilities of each in the study area and ensure there are no gaps in services.

Capital improvement projects
Service & program recommendations
Policy & planning recommendations





Proposed Roadway Cross Sections (See Recommendations Overview Map for locations)





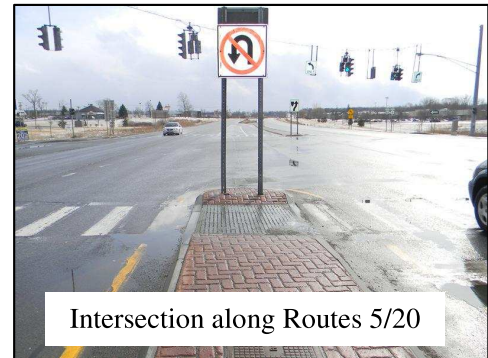
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1. Introduction

1.1 Study Purpose

New York State Routes 5 & 20 and Route 364 were originally designed to accommodate through traffic, serve as a gateway to the Finger Lakes, and provide local access and egress for vehicles. There is limited accommodation of other modes of transportation and, even where it is provided, the quality of the experience as a pedestrian or bicyclist is compromised by the wide travel lanes and minimal separation or buffer between heavy vehicle traffic.



As development and growth has occurred within and adjacent to the study area, there has been an increased demand to accommodate pedestrians, bicyclists, and transit passengers. Multi-family housing, both public and community college affiliated, is a generator of trips within the study area. These units typically have lower than average auto ownership rates, and residents rely on alternative modes of transportation for many of their trips. They require access to transit stops, adjacent retail establishments and in the case of Finger Lakes Community College (FLCC) housing, access to the campus. While attendees of the Constellation Brands/Marvin Sands Performing Arts Center (CMAC) primarily arrive by auto, the parking is not consolidated and many patrons choose to walk to and from CMAC rather than take shuttle services. As a result, special events create a combination of high vehicle traffic and high volume of pedestrians walking on the shoulders or in the grass area adjacent to roadways.



This study recognizes the need to provide transportation options within the study area to improve efficiency, equity, safety, and ultimately, livability. This is particularly important for providing basic mobility to people who are economically, physically or socially disadvantaged. Improved transportation options also result in a more diverse and flexible transportation system that can accommodate variable and unpredictable conditions. Even people who do not currently use a particular form of transport may value its availability as a form of insurance to accommodate future needs. Walking, bicycling, and shuttle services are integral to completing local trips for those users who cannot or choose not to drive a car.

In addition to improving mobility, the provision of transportation alternatives to driving alone generally increases physical activity. Even a shift to transit typically includes



longer walking trips than the use of a single-occupancy vehicle. The health benefits of regular physical activity include reduced risk of coronary heart disease, stroke, diabetes, and other chronic diseases; lower health care costs; and improved quality of life for people of all ages. Providing the infrastructure and services for transportation alternatives alone will not increase physical activity. The link between transportation and land use is critical to ensuring that the use of transportation alternatives to driving alone is feasible.

By reducing vehicle travel, the potential for vehicle conflicts with pedestrians and bicyclists will be reduced. In addition, there is the potential to improve or add infrastructure that focuses on these modes which will increase safety for all users. Having more people get out of their cars will also increase the street level pedestrian activity, creating a vibrancy and added level of safety and security in the area.

The study acknowledges that the study area's transportation system will evolve over time. In addition to identifying recommendations for capital projects, services, and programs, there is a need to establish planning guidelines to ensure future development will progress the goal of a non-auto dominated environment. Beyond the traditional improvement alternatives, this study also considers planning and policy approaches to ensure new development includes provisions for alternative modes.

The study consists of the following tasks:

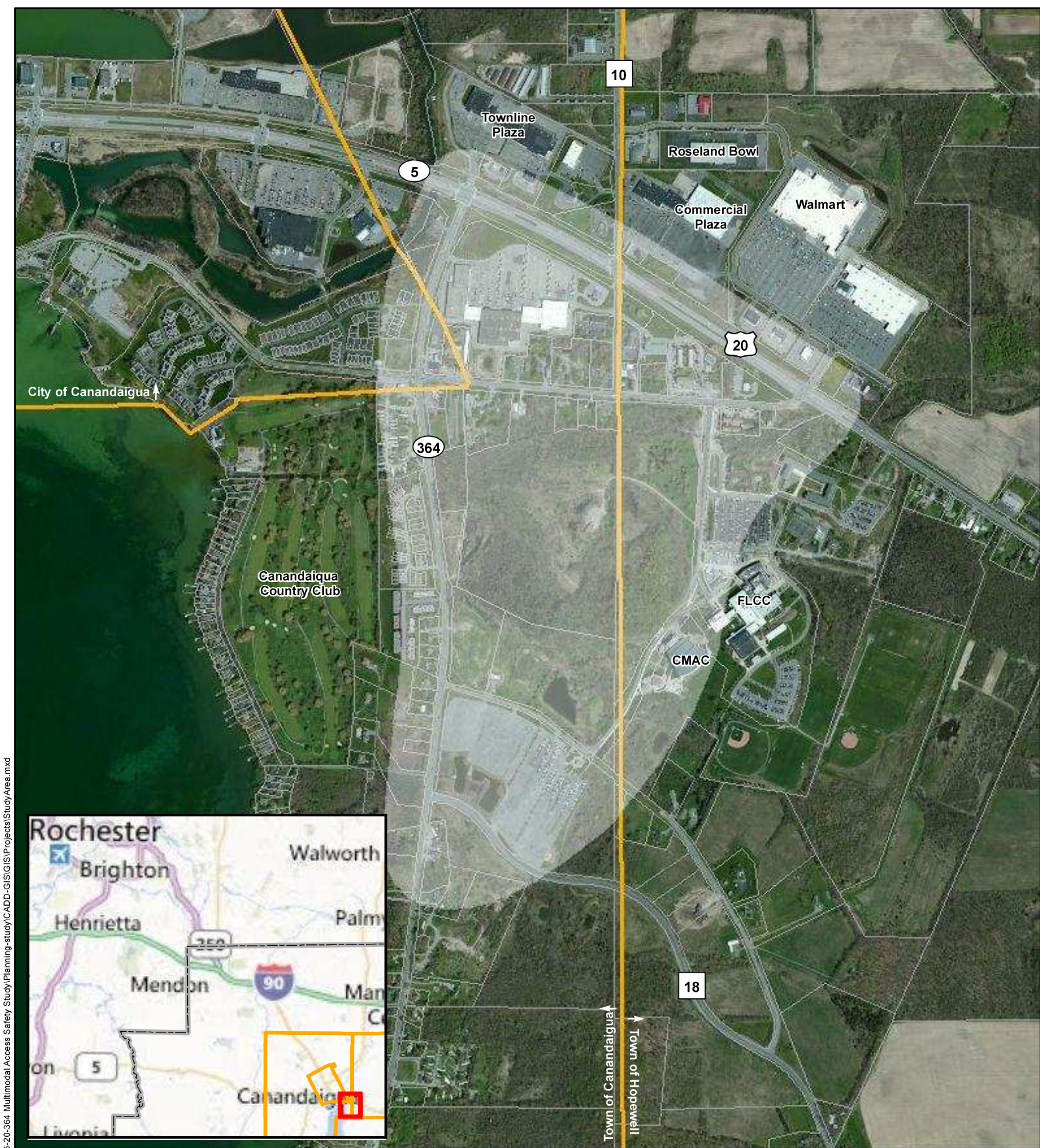
- Public Involvement in the form of stakeholder interviews, public information workshops and an on-line FLCC employee and student survey;
- Inventory of Existing and Planned Conditions;
- Needs and Opportunities Assessment;
- Evaluation of Improvement Alternatives;
- Development of Preferred Alternative; and
- Submission of Final Report

1.2 Study Area

1.2.1 Roadways and General Background

The study area lies mostly in the Towns of Hopewell and Canandaigua, with a small portion in the City of Canandaigua, in Ontario County. Ontario County is located in the Finger Lakes Region of New York State, approximately 8 miles southeast of the City of Rochester. (See **Figure 1-1**) Ontario County is the second largest county in the Region at approximately 644 square miles and is also second in population¹. Canandaigua is the county seat.

¹ <http://www.gtcmppo.org/Resources/QuickFacts.htm> as accessed 8/6/2012.



Legend

- Study Area
- Parcels
- City/Town Boundary
- County Road
- State Highway
- US Highway

Study Area

1" = 1000 ft
(When printed on 8.5" X 11")



Figure 1-1

Date: 12/12/2012





The focus of the study is on the following roadways (more detailed information is provided in **Section 2.1.1**):

- New York State Routes 5/20: Route 364 to Lakeshore Drive
- New York State Route 364: Routes 5/20 to County Road 18
- Lakeshore Drive: Route 364 to Routes 5/20
- Moran Road: Routes 5/20 to Lakeshore Drive
- Marvin Sands Drive: Route 364 to Lakeshore Drive

New York State Routes 5/20

Routes 5/20 is classified as an urban principal arterial owned and maintained by the New York State Department of Transportation (NYSDOT). It is a commercial corridor that consists of four, east-west travel lanes divided by a grass median and a speed limit of 45 miles per hour. The width of Routes 5/20 throughout the study area is approximately 100 feet. The intersections of Routes 5/20 with Route 364, County Road 10/Moran Road, and Lakeshore Drive are all signalized with a number of dedicated turn lanes. The signalized intersections are the only vehicular access points onto the roadway.



New York State Route 364

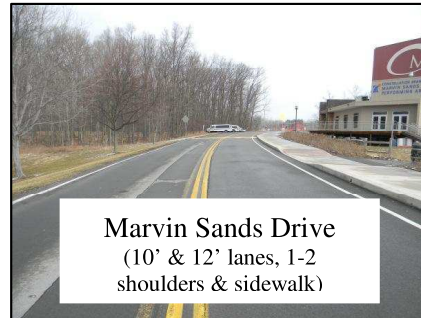
Route 364, also owned and maintained by the NYSDOT, is an urban collector with a posted speed limit of 45 miles per hour. There is one travel lane northbound and southbound but becomes as wide as approximately 50 feet at the intersections with County Road 18 and Marvin Sands Drive. It is a free-access roadway with a number of intersections and driveways to a mix of residential, including multi-family and campus dwellings, and commercial properties. The intersections at a plaza access and with Lakeshore Drive are signalized but all other cross streets are controlled by a stop sign.



Lakeshore Drive, Moran Road, and Marvin Sands Drive

Moran Road is a two-lane continuation of County Road 10 just south of Routes 5/20 that ends at Lakeshore Drive. Lakeshore Drive is a two-lane rural major collector and Marvin Sands Drive is a two-lane local road. Lakeshore Drive and Moran Road are posted for 30 miles per hour while Marvin Sands Drive is posted for 20 miles per hour. All FLCC and CMAC facilities including their on-site parking facilities are both accessed via Marvin

Sands Drive. Residential and commercial properties, including campus housing, hotels, retail, banking, and other service establishments make up adjacent land uses.



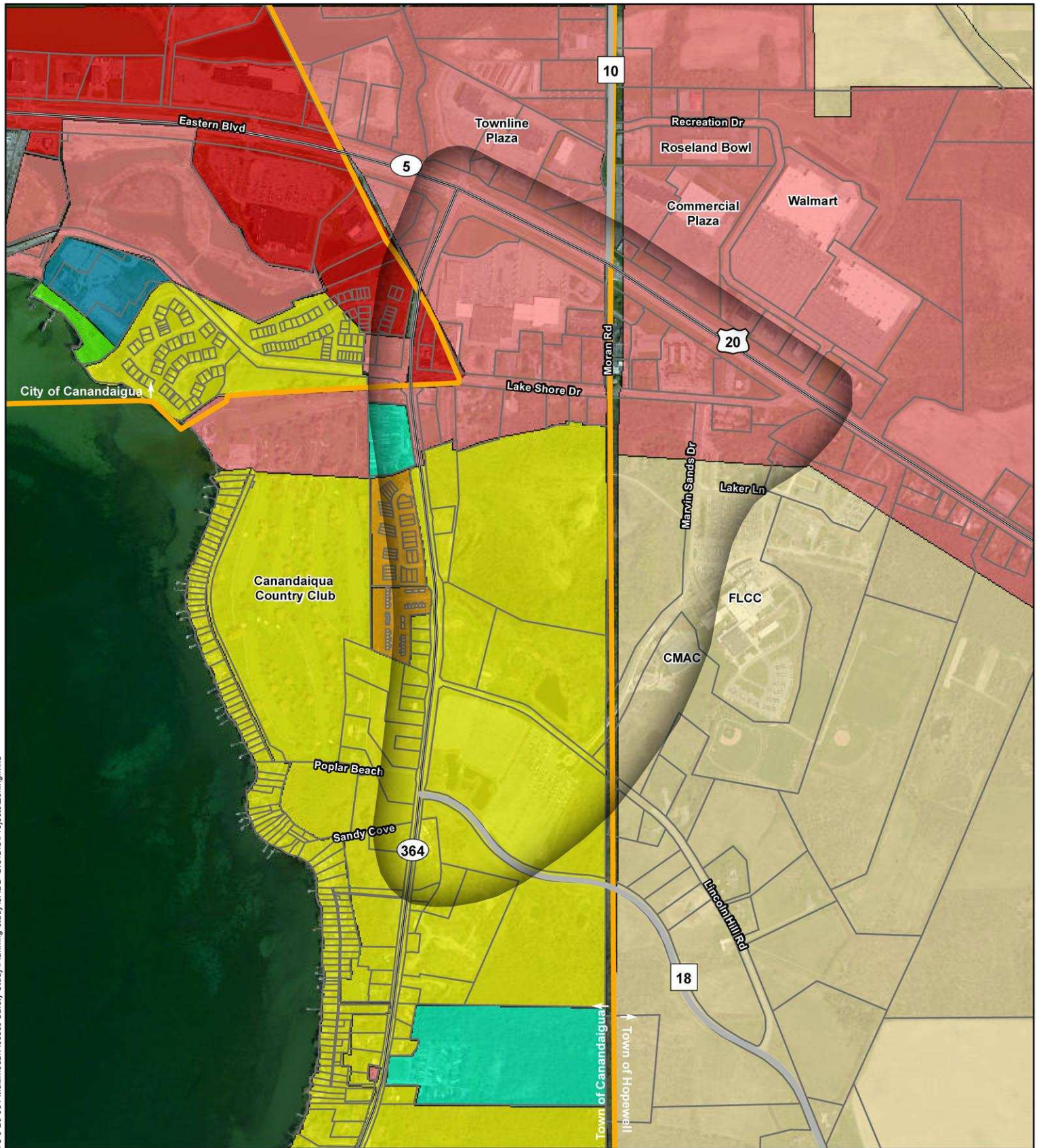
The study area is home to major regional commercial plazas along Routes 5/20, neighborhood commercial establishments, single-family housing, multi-family and low income housing, a commuter-heavy community college that has been growing dramatically since 2006, and an entertainment venue that can accommodate up to 15,000 patrons. It is the relationships and conflicts among the various transportation modes and land uses within the study area that justifies the need to evaluate “multi-modal safety, emergency and evacuation options, circulation, accessibility and parking improvements, appropriate linkages and wayfinding, and streetscaping enhancements.”²

1.2.2 Land Use and Zoning

Land use and zoning are inextricably linked with transportation. Land use provides information on different population clusters and destinations that may have different transportation needs or characteristics associated with them. Town and city zoning codes establish requirements for things such as building setbacks, parking accommodations, and pedestrian/bicycle provisions, among others that help to shape the transportation system in the municipality.

The zoning and land use within the study area are shown in **Figures 1-2** and **1-3**, respectively. The areas around Lakeshore Drive and north are zoned commercial with residential zoning to the south in both townships. Both FLCC and CMAC are in residential zoning areas. The land use is more specific with the areas south of Lakeshore Drive noted as colleges/universities, entertainment, residential, and public services.

² *Request for Proposals: Routes 5/20 and Route 364 Multi-Modal Safety and Access Improvement Study*, Ontario County, February 10, 2012.



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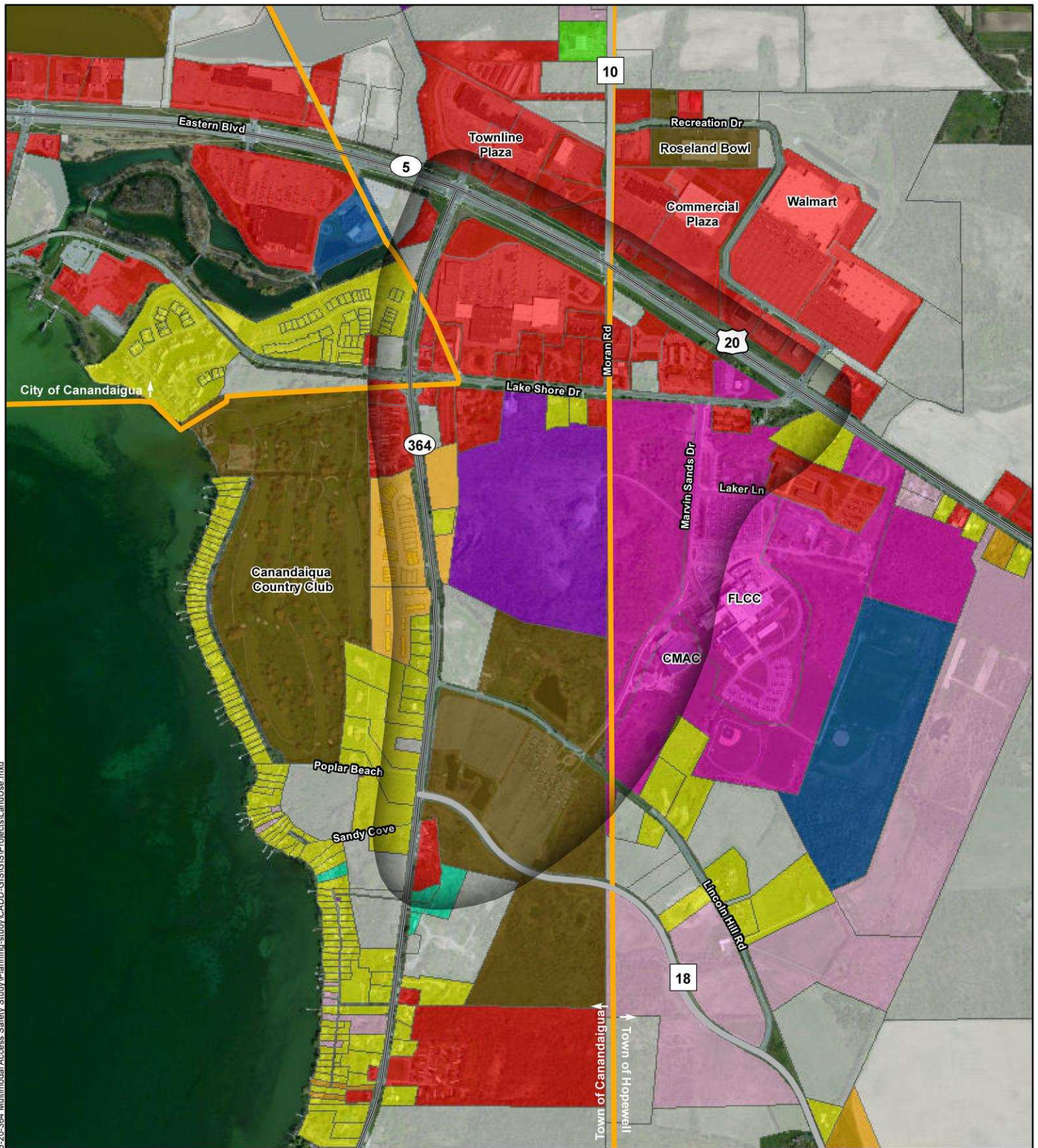
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|---------------|--------------------------------|---------------------------|-------------------------------|
| Study Area | Residential | Mobile Home | Parks and Recreation District |
| Town Boundary | Low/Medium Density Residential | Commercial | Planned Unit Development |
| Parcels | Multiple Residential | Heavy Commercial District | Study Area |

Zoning

Figure 1-2

Date: 12/10/2012





0 500 1,000 2,000 Feet

1" = 1000 ft
(When printed on 8.5" X 11")

Legend

- | | | | | |
|---------------------------|--------------------------|---------------|-------------------------|--|
| Study Area | Multi Family Residential | Commercial | Public Service | Vacant (Residential/Commercial/Agricultural) |
| Town Boundary | Mobile Home | Agricultural | Colleges & Universities | Study Area |
| Single Family Residential | Other Residential | Entertainment | Government | |



Land Use

Figure 1-3
Date: 12/10/2012





1.2.3 Environmental Characteristics

The environmental characteristics of an area are considered and documented for several reasons:

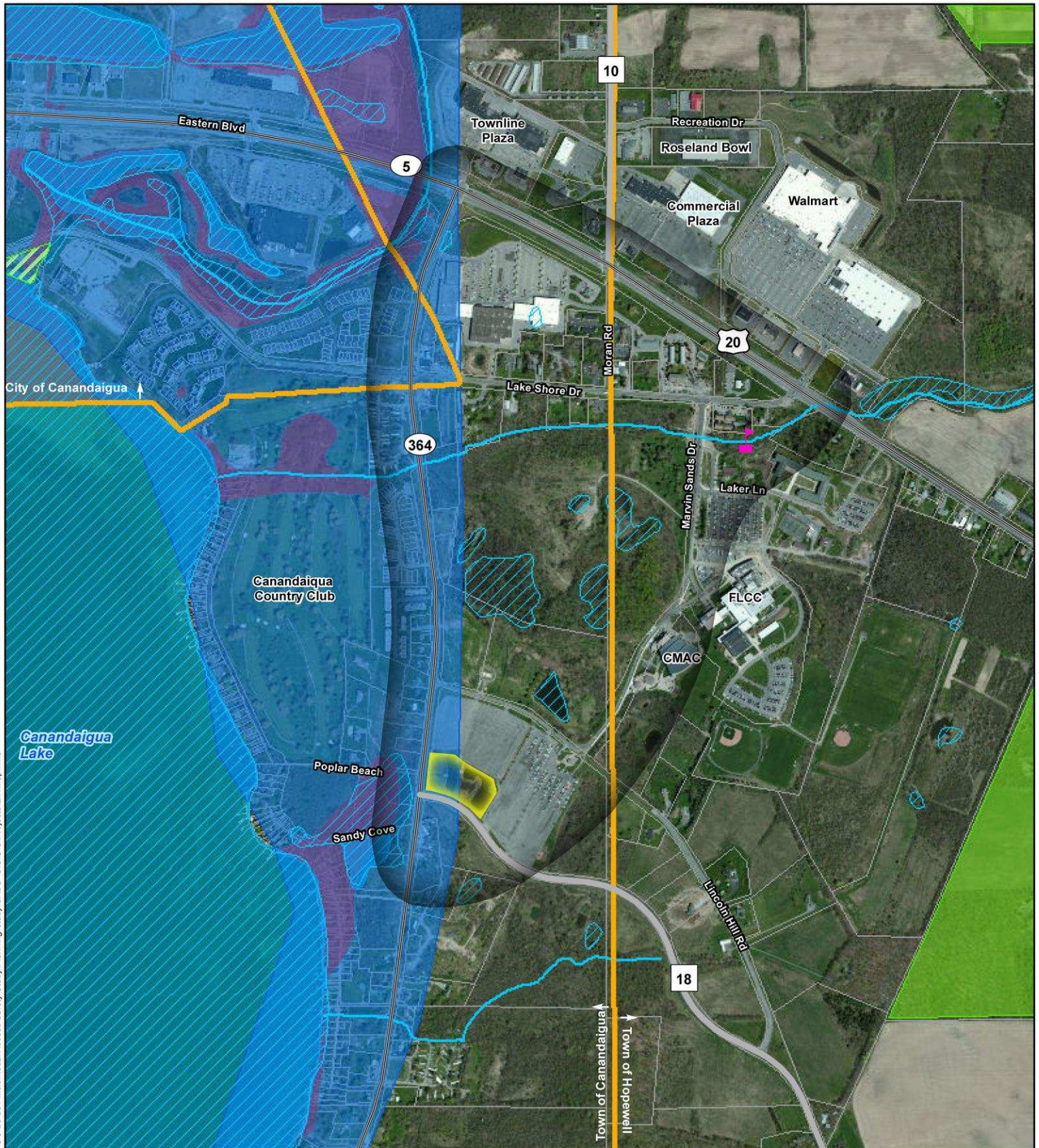
- They are an asset to the community and critical to the active transportation network given the trails, parks and other recreational locations in the area;
- Agricultural districts and sites of interest in the study area are key to the local economy and require the appropriate access for employees and visitors; and
- Environmentally sensitive areas need to be considered when making recommendations or considering specific projects – for example, infrastructure in flood zones may be vulnerable during storm events or archeologically sensitive areas may limit or eliminate the feasibility of potential projects.

Figure 1-4 highlights a number of environmental characteristics of the study area like 100-year flood zones, wetlands, waterbodies, and locations on the Environmental Protection Agency's Facility Registry System (EAP FRS). The EPA's FRS is a national database that provides access to a single source of comprehensive information about facilities subject to environmental regulations or of environmental interest.³ What the figure does not show, is that the entire study area is considered an archeologically sensitive area which means it contains one or more variables that make it a likely location for evidence of past human activities.

³ <http://www.epa.gov/enviro/html/> accessed on 12/10/12.



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Date: 12/12/2012

1" = 1000 ft
(When printed on 8.5" X 11")

0 500 1,000 2,000
Feet

Legend

- Study Area
- City/Town Boundary
- Parcels
- Floodplain (Zone-AE*)
- School
- Stream
- Waterbody
- Aquifer*
- Wetlands
- Agricultural District
- Recreation*
- Man Made Wetland

* The whole area shown on the map is delineated as 'Archeo Sensitive Area'

*Recreation area identified on this map is 'Kershaw Park';
Aquifer identified on this map is a 'Confined' Aquifer;
AE - Area inundated by 100-year flooding, for which Base Flood
Elevations (BFEs) have been determined

Environmental Overview



Figure 1-4



2. Existing Conditions

2.1 Inventory of Transportation System and Operations

Inventory information was gathered through previous studies, stakeholder interviews, on-site observations and data collection, and aerial photography.

2.1.1 Roadways

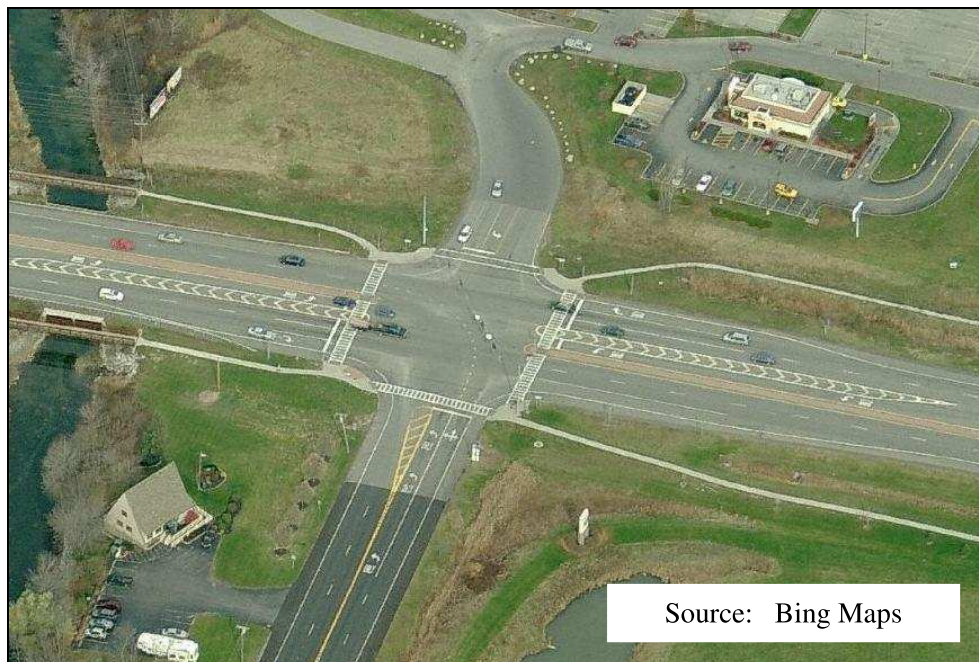
A summary of the study area roadways was provided in **Section 1.2.1** but the following sections include specific information regarding intersection lane configurations, traffic volumes, observations on operations, and an in-depth accident analysis.

2.1.1.1 Roadway Configurations

The roadway configurations of the nine intersections within the study area are shown in **Figure 2-1**. The intersections along Routes 5/20 are summarized below:

Routes 5/20 at Route 364: This signalized intersection includes raised medians on Routes 5/20 along with striped medians to separate the left turn lanes from the through lanes. There are striped crosswalks on all four approaches, pedestrian indications for crossing Routes 5/20 and curb ramps at each corner and the raised medians for pedestrian refuge. There are offset sidewalks and high/intersection level lighting along Routes 5/20.

Figure 2-2: Intersection of Routes 5/20 & Route 364





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0 375 750 1,500 Feet

1 inch = 750 feet
(When printed on 8.5" X 11")

Legend

Study Area

Parcels

City/Town Boundary

County Road

State Highway

US Highway

Signalized Intersections

Lane Configurations



Figure 2-1

Date: 12/12/2012

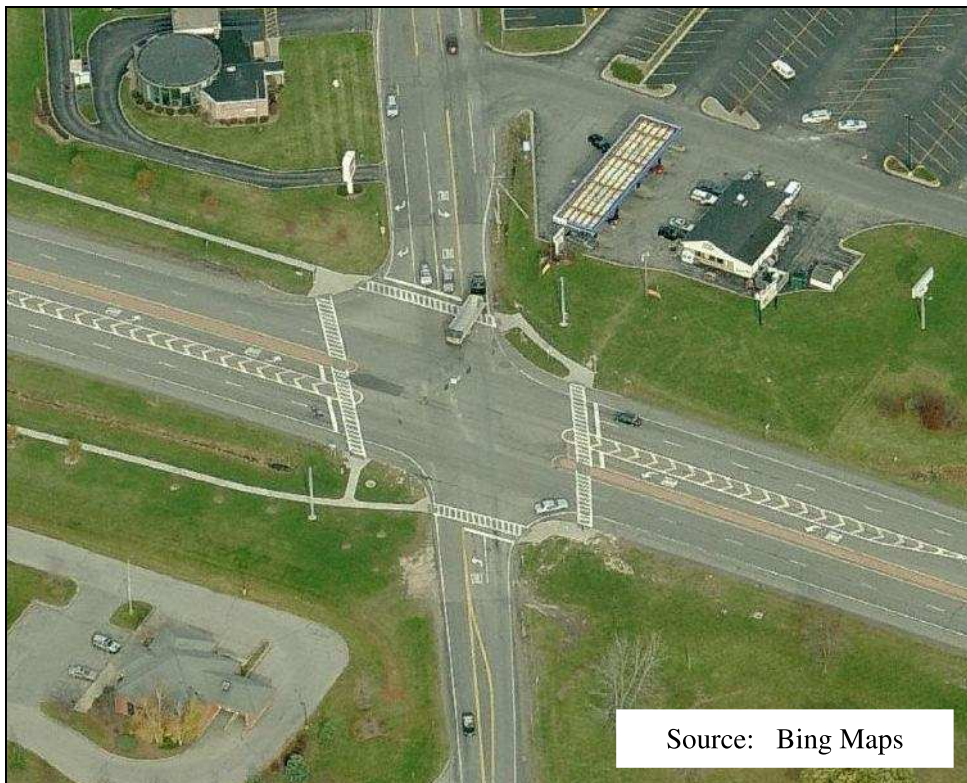


Roadway Geometry



Routes 5/20 at County Road 10: Very similar to the intersection at Route 364, this signalized intersection also includes raised medians on Routes 5/20 along with striped medians to separate the left turn lanes from the through lanes. There are striped crosswalks on all four approaches, pedestrian indications for crossing Routes 5/20 and curb ramps at each corner and the raised medians for pedestrian refuge. The offset sidewalks along Routes 5/20 terminate at County Road 10. Although not shown in the figure below, there is also sidewalk on both sides of County Road 10 to Recreation Drive north of Routes 5/20. The lighting along Routes 5/20 end at this intersection.

Figure 2-3: Intersection of Routes 5/20 & County Road 10



Routes 5/20 at Lakeshore Drive: This signalized intersection also includes raised medians on Routes 5/20 along with striped medians to separate the left turn lanes from the through lanes. There is a striped crosswalk on the east approach to the intersection across Routes 5/20 with pedestrian indications. There is a sidewalk on the northeast corner of the intersection leading to the shopping center parking area near Lowe's and Walmart but no other sidewalks exist near the intersection.



Figure 2-4: Intersection of Routes 5/20 & Lakeshore Drive



The signalized intersection at Route 364 and the plaza access just south of Routes 5/20 has a dedicated left turn lane for southbound traffic entering the plaza. There are no crosswalks or pedestrian indications and no intersection level lighting at this location.

The intersection of Route 364 and Lakeshore Drive includes dedicated left turn lanes on Route 364. There are no crosswalks or pedestrian indications but there are sidewalks along Lakeshore Drive west of Route 364. There is lighting at this intersection.

The other intersections within the study area are three-legged or T-intersections with stop control on what would be considered the minor roadway. Along Lakeshore Drive, Moran Road and Marvin Sands Drive are stop controlled. Along Route 364, Marvin Sands Drive and County Road 18 are stop controlled. There are a few high level lighting fixtures along Lakeshore Drive between Moran Road and Marvin Sands Drive. There are also light poles along Marvin Sands Drive between the CMAC box office and Lakeshore Drive.

2.1.1.2 Traffic Volume/Speed Data

Traffic volume data was gathered from a number of different sources. Historic data on the NYSDOT routes was noted in the 2006 *Canandaigua Regional Transportation Study*⁴ while more recent data was collected and provided by the

⁴ *Canandaigua Regional Transportation Study*, Clark Patterson Associates, May 2006.



NYSDOT itself. Traffic counts on Moran Road, Lakeshore Drive and Marvin Sands Drive was collected by Ontario County in the spring of 2012. Traffic volume data, along with the percent of heavy vehicles and 85th percentile speed data, where available, is shown in **Table 2-1**.

Table 2-1: Traffic Data

Average Annual Daily Traffic (AADT) and % Heavy Vehicles	2002 (1)		Various (2)			Growth Rate
	AADT	% HV	AADT	% HV	Year	
Routes 5/20 (West of Route 364)	23558		23416		2009	-0.09%
Routes 5/20 (Route 364 to Lakeshore Dr)	12000	7	13065		2008	1.43%
Route 364 (City Line to Routes 5/20)	4176	3	6057		2011	4.22%
CR 10 (btwn Routes 5/20 & CR 46)	9968		9880	4	2010	-0.11%

Traffic Data (Local Roads) May 2012	Actual Count	Seasonal Factor (3)	Adjusted AADT	% HV	85th % Speed	Posted Speed
Marvin Sands (South of Lakeshore)	3694	1.046	3532	6	35	20
Marvin Sands (East of Route 364)	644	1.046	616	4	31	20
Lakeshore Dr (btwn Routes 5/20 & Marvin Sands)	3738	1.046	3574	12	39	30
Lakeshore Dr (btwn Marvin Sands & Moran Rd)	5325	1.046	5091	7	37	30
Lakeshore Dr (btwn Route 364 & Moran Rd)	6074	1.046	5807	9	41	30
Moran Rd (btwn Lakeshore Dr & Routes 5/20)	2901	1.046	2773	6	36	30

1 - Data taken from Canandaigua Regional Transportation Study (2006)

2 - Provided by NYSDOT & Ontario County DPW

3 - Volumes provided from tube counts are adjusted seasonally based on guidance from the NYSDOT Highway Data Services Bureau

While there was no historical data available for the local roads, the volumes on Routes 5/20 and Route 364 show an overall growth in traffic for the study area. It should be noted that the volumes shown are average annual daily traffic counts so volumes during the summer months or on special event days will most likely be higher than indicated here.

The 85th percentile speed is the speed at or below which 85% of the traffic counted traveled. The speeds along the local roadways as measured are high for their posted speed limits (30 mph on Lakeshore Drive and Moran Road and 20 mph on Marvin Sands Drive).



2.1.1.3 Capacity Analysis/Operations

Based on historic data and analysis, traffic capacity and operations are not a significant concern throughout the study area during typical commuter peak periods. Therefore, a capacity analysis was not conducted as part of this effort. Historical analysis conducted in 2004 as part of the 2006 *Canandaigua Regional Transportation Study*⁵ indicated that intersections of Routes 5/20 with Route 364 and County Road 10 operate at a Level of Service (LOS) B during typical PM peak operations.

Level of Service, defined in terms of seconds of delay, is a measure of driver discomfort, frustration, fuel consumption and lost travel time. LOS criteria are stated in terms of control day per vehicle for a 15 minute analysis period and range from “A” to “F”. LOS A is representative of a movement that is free flowing with minimal delay, while LOS F generally represents long delays.

Past data on the LOS for the other study area intersections was not noted but observations during typical peak periods did not indicate any capacity concerns. Observations on traffic operations and capacity concerns during special events are noted in **Section 2.1.7**.

2.1.1.4 Accident Analysis

Accident data was compiled and reviewed for the latest three-year period, January 2009 through December 2011. Verbal Description Reports were available from the NYSDOT Accident Location Information System and where it was available, detailed local data through Ontario County was gathered as well. The accident location is noted via reference marker and through other notes indicated within the accident report. Accidents are classified by the amount of damage caused and/or if an injury was a result of the collision. An accident is determined non-reportable if it resulted in less than \$1,000 worth of damage. **Table 2-2** summarizes the data reviewed by roadway segment or intersection.

⁵ *Canandaigua Regional Transportation Study*, Clark Patterson Associates, May 2006 – Table 3.1-4.



Table 2-2: Accident Summary

	January 2009 - December 2011				
	Total # Accidents	PDO	Injury	Fatality	Non- Reportable
Intersections					
RTS 5/20 & RT 364	17	4	6		7
RTS 5/20 & CR 10	43	15	15		13
RTS 5/20 & Lakeshore Dr	15	9	5		1
RT 364 & Lakeshore Dr	20	10	7		3
RT 364 & Marvin Sands Dr	4	4			
RT 364 & CR 18	8	5	1		2
Lakeshore Dr & Moran Rd	7	3			4
Lakeshore Dr & Marvin Sands Dr	2	1	1		
Totals	116	51	35	0	30
Segments					
RTS 5/20 (btwn RT 364 & CR 10)	4	3			1
RTS 5/20 (btwn CR 10 & Lakeshore Dr)	5	2			3
RT 364 (btwn RTS 5/20 & Lakeshore Dr)	2				2
RT 364 (btwn Lakeshore Dr & Marvin Sands Dr)	15	7	5		3
RT 364 (btwn Marvin Sands Dr & CR 18)	1	1			
Lakeshore Dr (btwn RT 364 & Moran Rd)	6	4	1		1
Lakeshore Dr (btwn Moran Rd & Marvin Sands)	0				
Lakeshore Dr (btwn Marvin Sands & RTS 5/20)	1	1			
CR 10 (north of RTS 5/20)	2	1			1
Moran Rd (btwn Lakeshore Dr & RTS 5/20)	3	3			
Totals	39	22	6	0	11

Accident rates were calculated for these locations using the segment lengths in miles, average annual daily traffic volume data, and the number of accidents over a three-year period. The comparisons between the calculated rate for each location and the statewide average (SWA) rate for similar locations between 2008 and 2010 are shown in **Table 2-3**. Since the SWA rates do not include non-reportable accidents, they were excluded from the calculations here as well.



Table 2-3: Accident Rate Summary

	Total # Accidents	# w/o Non- Reportable*	AADT**	Segment Length	Total Acc Rate	SWA Rate	% > SWA
Intersections							
RTS 5/20 & RT 364	17	10	19122		0.48	0.12	300%
RTS 5/20 & CR 10	43	30	22945		1.19	0.12	892%
RTS 5/20 & Lakeshore Dr	15	14	16639		0.77	0.12	542%
RT 364 & Lakeshore Dr	20	17	11864		1.31	0.12	992%
RT 364 & Marvin Sands Dr	4	4	6673		0.55	0.10	450%
RT 364 & CR 18	8	6	8357		0.66	0.10	560%
Lakeshore Dr & Moran Rd	7	3	7864		0.35	0.10	250%
Lakeshore Dr & Marvin Sands Dr	2	2	8623		0.21	0.10	110%
Segments							
RTS 5/20 (btwn RT 364 & CR 10)	4	3	13065	0.2	1.05	1.33	-21%
RTS 5/20 (btwn CR 10 & Lakeshore Dr)	5	2	13065	0.3	0.47	1.33	-65%
RT 364 (btwn RTS 5/20 & Lakeshore Dr)	2	0	6057	0.3	0	2.88	-100%
RT 364 (btwn Lakeshore Dr & Marvin Sands Dr)	15	12	6057	0.4	4.52	2.88	83%
RT 364 (btwn Marvin Sands Dr & CR 18)	1	1	6057	0.2	0.75	2.88	-70%
Lakeshore Dr (btwn RT 364 & Moran Rd)	6	5	5807	0.3	2.62	2.47	6%
Lakeshore Dr (btwn Moran Rd & Marvin Sands)	0	0	5091	0.1	0	2.47	-100%
Lakeshore Dr (btwn Marvin Sands & RTS 5/20)	1	1	3574	0.1	2.56	2.47	4%
CR 10 (btwn RTS 5/20 & Recreation Dr)	2	1	9880	0.2	0.46	2.47	-81%
Moran Rd (btwn Lakeshore Dr & RTS 5/20)	3	3	2773	0.2	4.94	2.47	100%

Highlighted locations indicate an accident rate that exceeds the NYSDOT SWA.

*Non-reportable accidents were excluded from accident rate calculations to be comparable to NYSDOT SWA.

**AADT-average annual daily traffic – all entering traffic for all approaches of an intersection and total traffic on a roadway segment (both directions) calculated using data from Table 2-1.

As indicated above, all of the study area intersections exceed the SWA with the highest number of accidents and highest accident rates occurring at the intersections of Route 364 and Lakeshore Drive, Routes 5/20 and County Road 10, and Routes 5/20 and Lakeshore Drive. The roadway segments with the most accidents were Route 364 between Lakeshore Drive and Marvin Sands Drive and Lakeshore Drive between Route 364 and Moran Road. While those segments had the most accidents, two other segments had accident rates that also exceed the SWA due to the low volumes on these roadways: Moran Road between



Lakeshore Drive and Routes 5/20 and Lakeshore Drive between Marvin Sands and Routes 5/20. A summary of patterns and detailed contributing factors at these locations follow below.

Routes 5/20 & County Road 10

Of the 43 accidents noted at this intersection, 22 were right angle or left turn accidents, 9 were rear end accidents and 4 were overtaking/sideswiping accidents. The most common factors noted as contributing to the accidents were traffic control disregard, failure to yield right of way, driver inattention and following too closely.

In the 2006 *Canandaigua Regional Transportation Study*⁶, it was noted that this intersection exceeded the SWA at that time, prior to having separated left turn lanes on Routes 5/20. For this latest analysis, the left turn separation striping is in place but it should be noted that the signal heads along the span wire were not changed to line up with the new lane configuration which may still be leading to driver confusion or traffic control disregard at this intersection. The photo below depicts the westbound approach on Routes 5/20 at County Road 10 and shows how the 5-ball signal head that includes the left turn arrows for the dedicated lane are centered over the through lane. This signal head layout is the same for the eastbound approach.



Route 364 & Lakeshore Drive

Of the 20 accidents at the intersection of Route 364 and Lakeshore Drive, 12 of them were rear end collisions mostly caused by driver inattention/cell phone use or following too closely. There was one accident where a pedestrian crossing

⁶ *Canandaigua Regional Transportation Study*, Clark Patterson Associates, May 2006 – Page 37.



Lakeshore Drive on the east side was injured when a vehicle made a left turn hitting them, disregarding the traffic control.

Routes 5/20 & Lakeshore Drive

There were 15 accidents noted at the intersection of Routes 5/20 and Lakeshore Drive. Of the 15 accidents, 12 were left turn or right angle collisions caused by a driver failing to yield the right of way or disregarding the traffic control. Of the 12 left turn/right angle collisions, 7 were caused by the driver from Lakeshore Drive making a left turn onto Routes 5/20.

Route 364 (between Lakeshore Drive & Marvin Sands Drive)

There were 15 accidents noted on this 0.4 mile segment of Route 364. There was no clear accident pattern with 6 rear end, 3 right angle, 3 fixed object, 2 animal action, and a pedestrian accident which occurred while a vehicle turning into a driveway struck a pedestrian walking on the east side of Route 364. The accidents mostly occurred in the vicinity of the driveways closer to Lakeshore Drive. The most common contributing factors noted were failure to yield right of way, following too closely, and driver inattention.

Lakeshore Drive (between Route 364 & Moran Road)

The 6 accidents noted on Lakeshore Drive between Route 364 and Moran Road were associated with unsafe speeds and driver inattention, as well as an animal action and following too closely. There were 3 rear end accidents, one sideswipe when a vehicle attempted to pass a vehicle turning left, one right angle accident with a vehicle exiting a driveway, and a vehicle that hit an animal.

The accident data was also compared to the event schedule at CMAC in order to determine how many accidents in the area could be attributed to the heavier and often times, unfamiliar, traffic associated with an event. CMAC was able to provide an event schedule from 2010 and 2011 so these two year's worth of events could be compared to the accident data. During these two years, only two accidents occurred on the day of a special event at a time that may have been associated with an event. There was no evidence within the available data that indicated if there was a correlation.

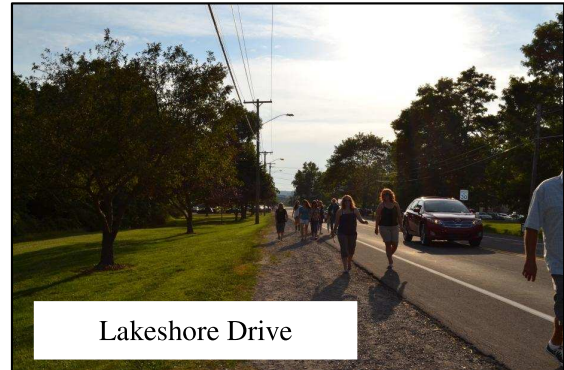
Looking at the monthly fluctuations of accidents over the three-year period analyzed, 46 accidents or approximately 30% occurred during the summer months (June, July, and August). The highest number of accidents occurred during the month of October (22).



2.1.2 Pedestrian/Bicycle

2.1.2.1 Sidewalks

Sidewalks are present along Routes 5/20 on both sides of the road from west of Route 364 to the intersection with County Road 10. The sidewalk is offset from Routes 5/20 and the width varies from 5 to 7 feet. The sidewalk on the east side of Marvin Sands Drive is approximately 8 feet wide, begins on the northeast corner of the general parking area and ends at Lakeshore Drive as shown in **Figure 2-5**. There are no sidewalks on Route 364, Lakeshore Drive or Moran Road and no pedestrian level lighting throughout the study area.



There are painted crosswalks with pedestrian indications and curb ramps at the signalized intersections of Routes 5/20 with Route 364 and County Road 10. There are also painted crosswalks on Marvin Sands Drive just north of CMAC coming from the FLCC Trail and on the east approach of Lakeshore Drive at Marvin Sands Drive. These locations are indicated on **Figure 2-5**.

2.1.2.2 Bicycle Infrastructure

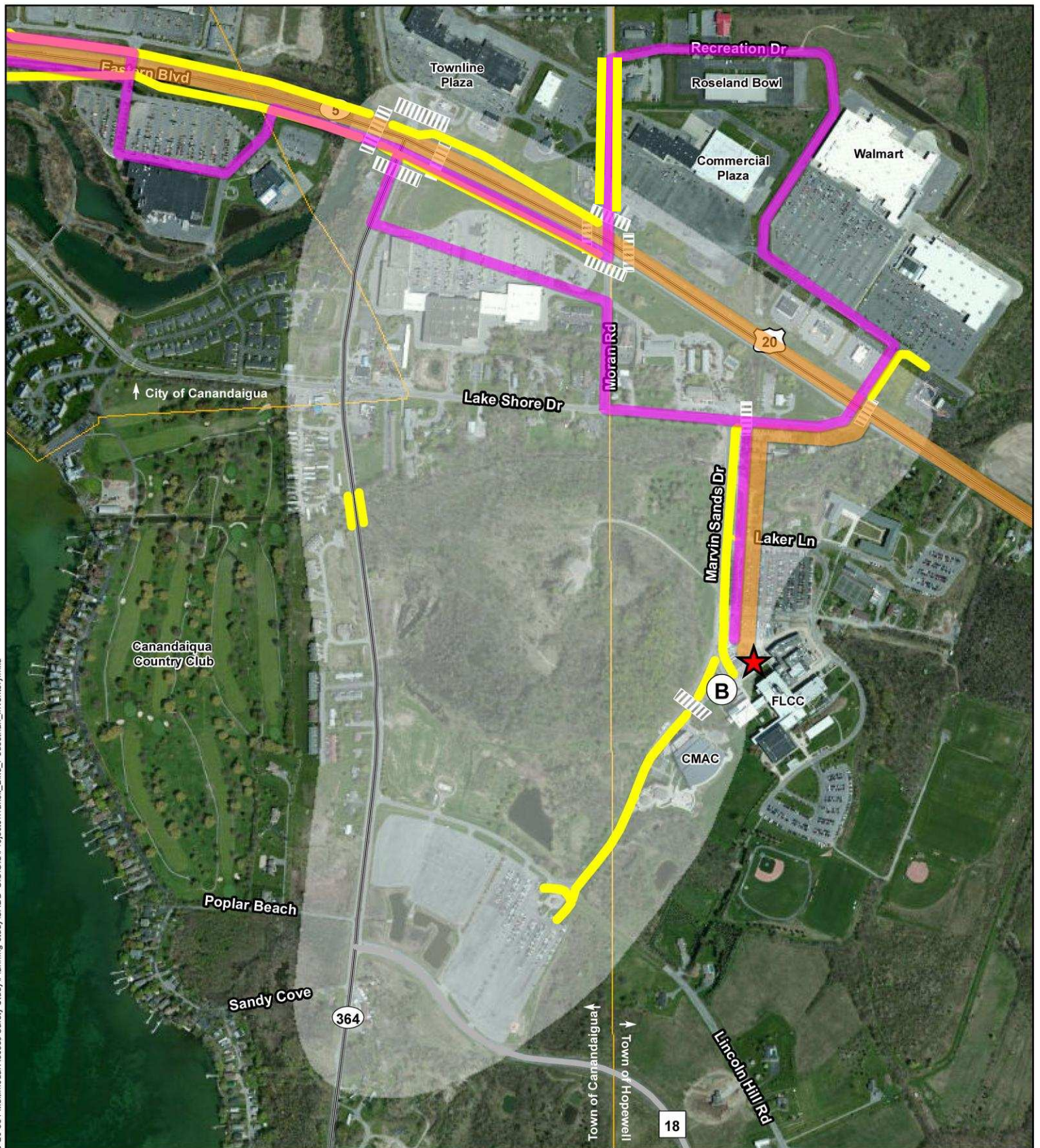
No dedicated bicycle lanes have been created along roadways in the study area. Bicycle activity takes place within the travel lanes or shoulders of existing roads. The closest designated bicycle routes are State Bicycle Route 5 just north of the Thruway along New York State Route 31 and State Bicycle Route 14 that follows New York State Route 14 through Geneva.



There is an uncovered bike rack at FLCC near the Library but no others were seen. There are also no bike racks on the Ontario County Area Transit System buses.



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0 750 1,500 Feet

1 inch = 750 feet
(When printed on 8.5" X 11")

Legend

- | | | | |
|--------------------|---------------|-----------|--------------|
| Study Area | County Road | Crosswalk | Bus Shelter |
| Parcels | State Highway | Sidewalk | CATS Route 2 |
| City/Town Boundary | US Highway | Bike Rack | CATS Route 4 |



Transit/Bicycle/Pedestrian Inventory

Figure 2-5
Date: 12/12/2012





2.1.3 Trails

There are no existing trails in the study area but there are some adjacent to the area that are used for transportation, as well as recreation, such as the Ontario Pathways Trail. The Ontario Pathways Trail is a 23-mile rails to trails system that runs north of Routes 5/20 within the study area. The trail can be used for hiking, horseback riding, bicycling, and cross-country skiing but no motorized vehicles are allowed.⁷ The Canandaigua Lagoon Walk Park located just northwest of the study area is a set of trails and linkages between businesses, residents, and recreational facilities along the Canandaigua lakeshore.

There are also a number of existing and proposed trails in the City of Canandaigua and the surrounding areas as noted in the Genesee Transportation Council's Regional Trails Initiative documents from 2002-2004.

The FLCC Trail System located in the woods between Marvin Sands Drive and Route 364 is recreational and educational in nature. A map of the trails is not available at this time.

2.1.4 Transit/Human Service Transportation

While there are a number of regional public transportation providers in surrounding counties associated with the Rochester Genesee Regional Transportation Authority, Ontario County and the study area is served by the Ontario County Area Transit System (CATS), a department within Ontario County government. CATS provides the area with service under contract with First Transit. The study area is currently served by Dial-A-Ride services and two fixed routes: Route 2 – Canandaigua South and Route 4 – Canandaigua-Geneva-Canandaigua.

CATS information is provided on webpages through Ontario County's website: <http://www.co.ontario.ny.us/index.aspx?nid=231>. Fares, schedules, an interactive map, and additional information regarding rules, guidelines, etiquette, and a place to provide feedback are included on the site. Information on the services provided by CATS are described below.

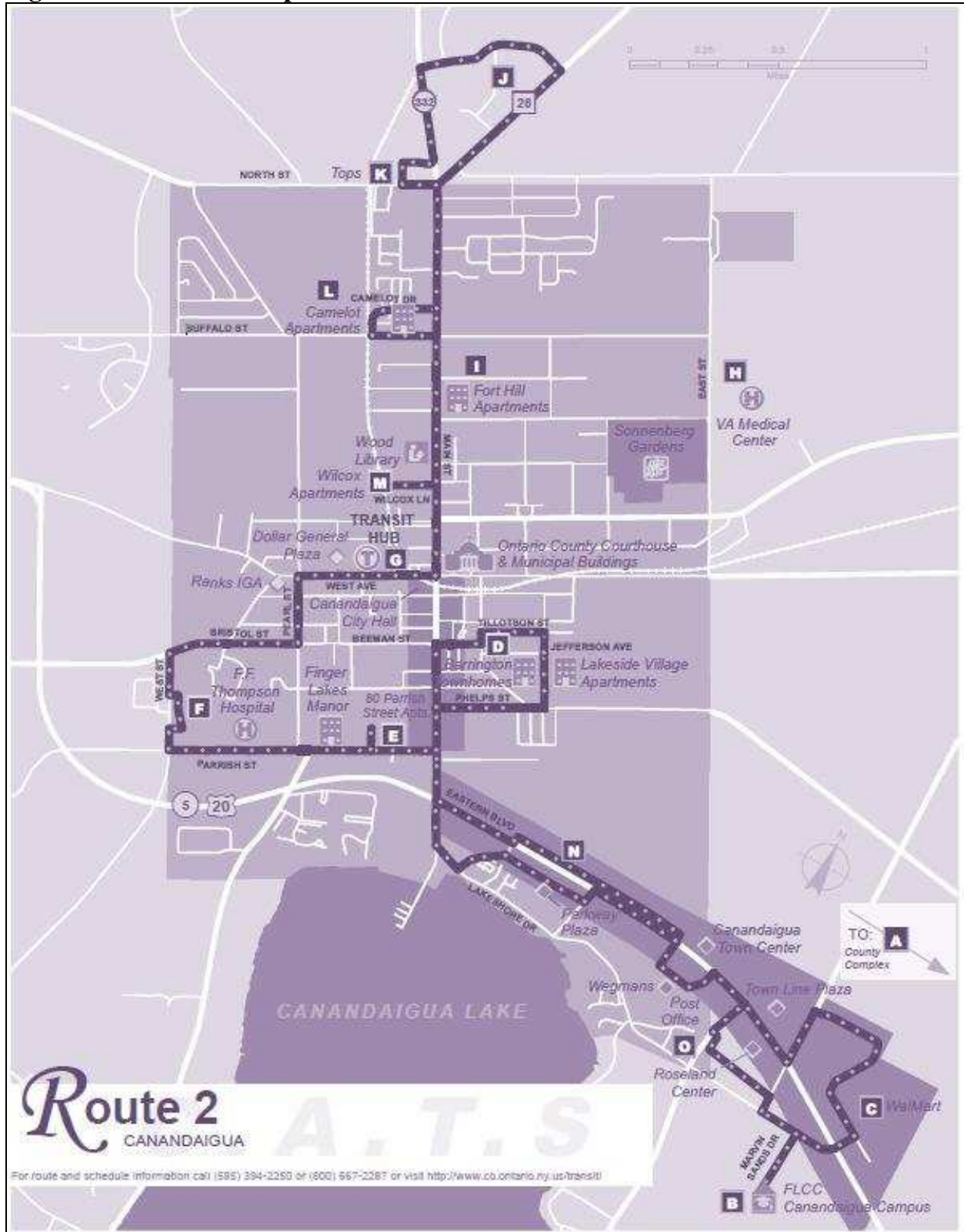
Route 2 – Canandaigua South

Service on Route 2 spans from 6:30 am to 6:30 pm Monday through Thursday and until 7:30 pm on Friday. On the weekends, service runs from 9:30 am to 7:30 pm on Saturday and to 6:30 pm on Sunday. The bus stops at FLCC at alternating 30 and 60 minute increments.

⁷ Routes 5 & 20 Corridor Management Plan, peter j. smith & company, inc., date unknown.



Figure 2-6 – Route 2 Map⁸



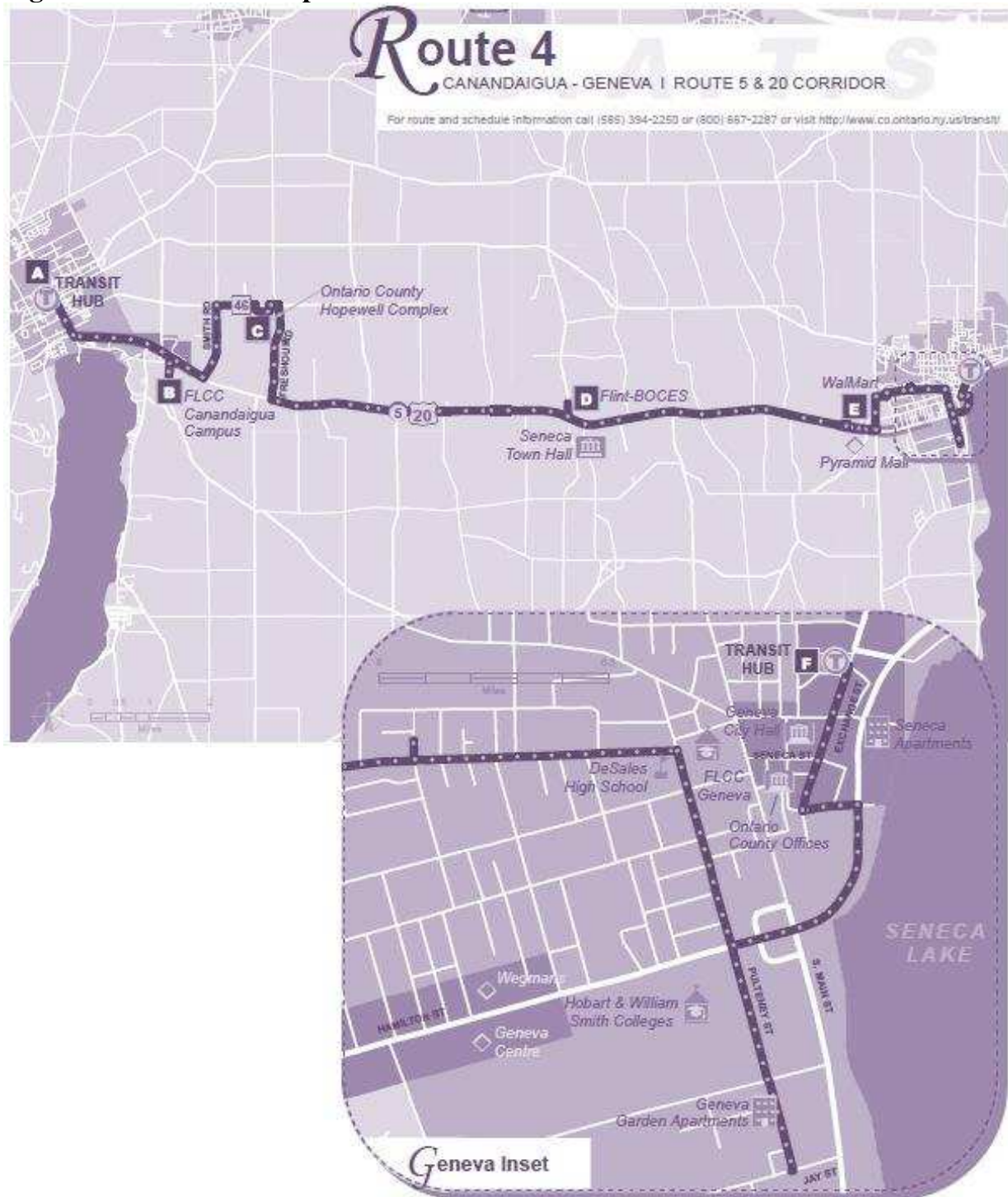
⁸ <http://www.co.ontario.ny.us/DocumentCenter/Home/View/1329> accessed 11/5/12



Route 4 – Canandaigua – Geneva – Route 5 & 20 Corridor

Route 4 serves from 6:30 am to 6:30 pm on weekdays only. The bus stops at FLCC every 2 hours in each direction: westbound or eastbound.

Figure 2-7 – Route 4 Map⁹



⁹ <http://www.co.ontario.ny.us/DocumentCenter/Home/View/1026> accessed 11/5/12



Both fixed routes make stops at FLCC. The bus stop at FLCC includes a shelter located in the heart of campus as shown in the picture to the right.

Other than the 2 fixed routes, there is also an express route and a shared route medical bus to Rochester. The express Route 5X offers weekday service from Eastview Mall to FLCC in the morning. It begins at the Mall at 7:40 am and arrives at FLCC at 8:15 am before continuing on to Hobart and William Smith Colleges in Geneva. A medical bus will go to Rochester's Strong Memorial Hospital and will provide a free ride to anyone if there is space available.



FLCC Bus Shelter

Dial-A-Ride Service

Dial-A-Ride (DAR) service is available Monday through Friday throughout the County where fixed route service is not available. There is also a shared route to Monroe County during the week as noted above. Rides are available from 7:00 am to 7:00 pm and must be reserved 24 hours in advance. Drivers are able to assist the rider on and off the bus but cannot act as an escort to and from a location.¹⁰

The rates for CATS fixed and DAR routes are noted in **Table 2-4** below:

Table 2-4 – CATS Transit Fees (One-Way)

	Regular Fares	Senior/Disabled Fares
Fixed Routes	\$1.00	\$0.50
Route Deviation*	\$2.00	\$2.00
Unlimited Monthly Ride Pass	\$30.00	
Dial – A – Ride	\$5.00	\$5.00
Inter-Zone	\$10.00	
Victor, Farmington, Manchester	\$10.00	
East/West Bloomfield, Canandaigua, Hopewell	\$12.50	
Richmond, Phelps, Bristol, Gorham, Seneca, Candice, Naples	\$15.00	

*CATS will deviate off a fixed route for anyone living within ¾ mile with 24 hours notice

¹⁰ <http://www.co.ontario.ny.us/index.aspx?NID=740> accessed 11/6/12



Other Specialized Service

The following is a summary of specialized transportation services available to special population groups as noted in the *Ontario County Fixed Route Evaluation* completed in 2010¹¹:

- CATS DAR services support several other Ontario County programs, including the Department for the Aging and the Department of Social Services. Although DAR services are available to members of the general public, the service is widely used by older adults and Medicaid clients. The Department of Social Services also supports DAR services by reimbursing the fares of clients who receive Temporary Aid to Needy Families grants and use the DAR service to travel to/from employment.
- Ontario County Transportation Department and CATS operate a “Senior Van” service on behalf of the Office for the Aging that provides transportation to seniors, primarily for medical and other appointments. Senior van service is available in Canandaigua on Mondays, Tuesdays, Wednesdays and Fridays and in Geneva on Wednesdays and Fridays. There are no set fares for riding the senior van, but donations are accepted.
- In addition to its contract with Ontario County for CATS, First Transit provides medical transportation for qualified Medicaid patients. This service includes DAR trips to/from medical appointments as well as transportation to medical facilities in Rochester and other locations in Monroe County.
- There are a handful of other Medicaid transportation providers in Ontario County. Several of these private operators are certified for non-emergency medical transportation and also have accessible vehicles that accommodate individuals using wheelchairs.
- Ontario ARC, a not-for-profit organization serving individuals with developmental disabilities, provides transportation to its clients. Transportation services are primarily oriented towards bringing individuals to/from agency programming; however, Ontario ARC also contracts with other social service agencies and their clients to provide transportation, including medical transportation.
- Some other medical and health oriented organization, such as Lakeview Mental Health and Clifton Springs Hospital affiliated nursing home, also offer limited transportation services for their clients. Lakeview also provides transportation under arrangements with other not-for-profit agencies.

¹¹ *Ontario County Fixed Route Evaluation*, Nelson Nygaard, February 2010.



2.1.5 Parking

There are no public parking surface lots, garages, or on-street parking within the study area. All parking within the study area is private and for the exclusive use of tenants and patrons. Parking is further discussed in the following sections as part of the summary of FLCC and CMAC facilities and operations.

2.1.6 FLCC

FLCC has over 6,500 full- and part-time students with approximately 4,300 at the main campus. Of these 4,300 students, FLCC noted approximately 350 live in the residence hall adjacent to campus and approximately 250 live in apartment complexes within walking distance (Brentwood Apartments-Moran Road, Cedar Lodge-Marvin Sands Drive and Campus Gate-Lakeshore Drive). There are over 300 full-time employees and approximately 350 part-time employees, but it is not known how many are at the main campus on any given day versus at a different campus center or teaching an online course.

Figure 2-8 is the campus map that highlights the existing buildings and parking facilities. FLCC offers free public parking in the A and G lots. B lot accommodates visitor and permit parking, D lot is reserved for permit parking and C lot is a loading dock and no parking zone. **Table 2-5** summarizes the number of parking spaces in the larger lots on campus as provided by FLCC in the summer of 2012.

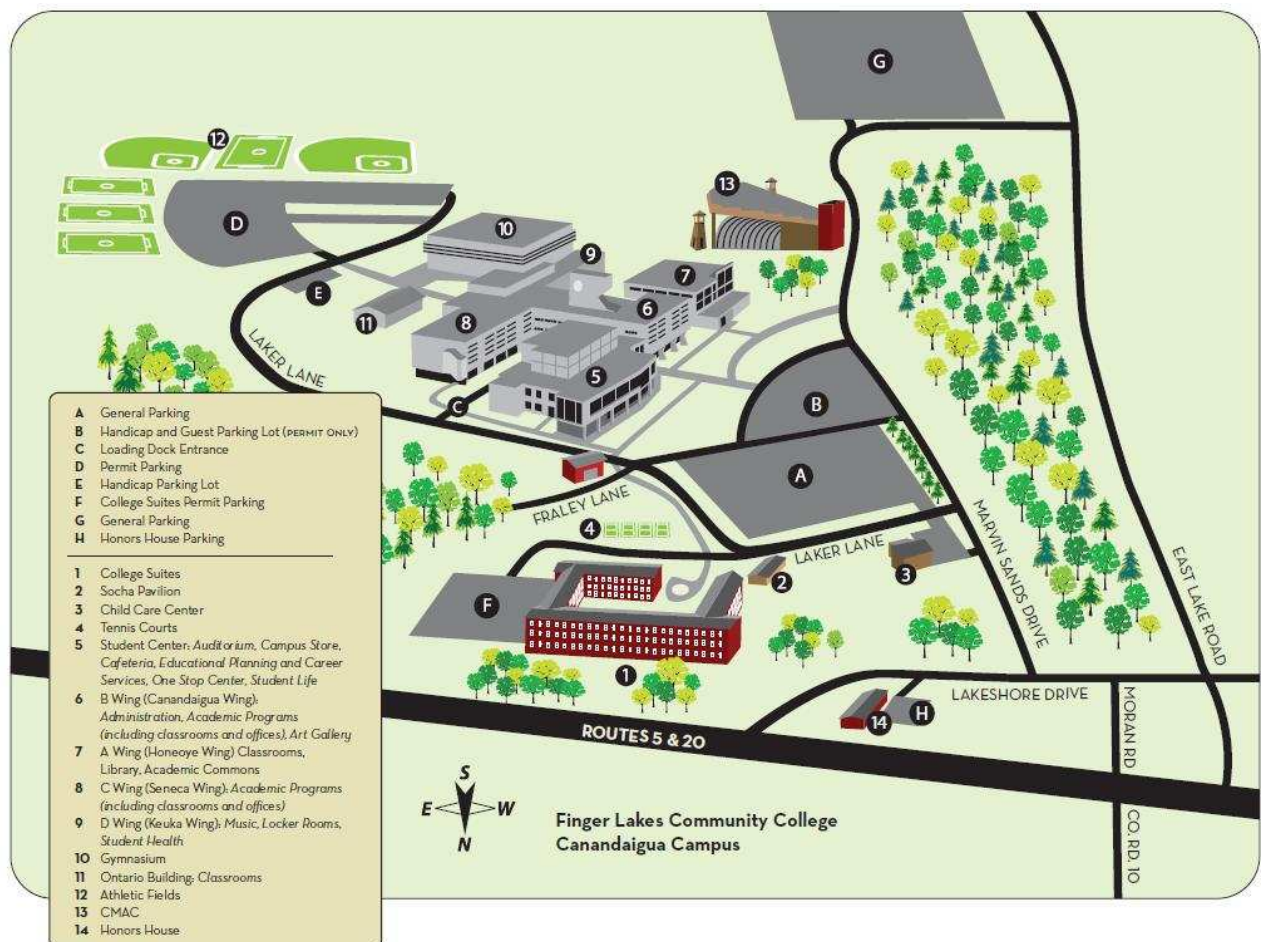
Table 2-5 – FLCC Parking Supply

FLCC Lot	Total	Carpool	Handicap
A	427	23	
B	51		19
D	317		28
G	2,700		37
Total	3,495	23	84

During observations during a typical weekday morning, it was noted that A lot was close to capacity by 8:30 am with overflow vehicles using G lot. The occupancy of the G lot appeared to peak around 10:30 am at approximately 1/3 full. Overall, there is an excess of parking available for FLCC with the use of G lot as an overflow facility.



Routes 5/20 & Route 364 Multi-Modal Safety & Access Improvement Study





Along with the observations made regarding parking at FLCC, a number of other aspects of the transportation network and system were noted:

- Pedestrian patterns were observed and it was noted that most of the pedestrians were seen walking from G lot but there were some pedestrians coming from the apartment buildings and residential units on Lakeshore Drive. There were also pedestrians observed walking to campus from the Lowe's parking lot across Routes 5/20 in the morning. **Figure 2-9** highlights the observed pedestrian pattern at FLCC during a typical weekday morning.
- While only 1 bicyclist was observed during the observation period, there were 4 bikes parked in the rack located near the library.
- There was no traffic congestion at any of the study intersections during the observation period, which is consistent to what was noted in previous documents that analyzed roadway capacity.



Legend

- Study Area
- Parcels
- Town Boundary
- H Student Housing
- Line Thickness Indicates Amount of Pedestrian Activity
- County Road
- State Highway
- US Highway

0 750 1,500 Feet

1 inch = 750 feet
(When printed on 8.5" X 11")



Typical Weekday Pedestrian Patterns

Figure 2-9

Date: 12/12/2012





2.1.7 CMAC

CMAC is a 15,000 guest entertainment venue that is celebrating its 30th anniversary in 2013. The facility was founded on the realization of the importance art and culture in the quality of a community¹².

During the 2012 season, there were 23 events between June and September with a total of almost 115,000 attendees. The average attendance for these events was just under 5,000 but there were 3 shows with more than 10,000 attendees: Lady Antebellum, Dave Matthews with Tim Reynolds, and Mumford and Sons. Observations were recorded at the June 29th Tim McGraw concert as well as at the August 7th Mumford and Sons concert in order to document procedures and operations as well as observe pedestrian and vehicle activity in the study area.

Detailed observation notes and information is provided in **Appendix A**. The following is a summary of the key observations:

Communications:

- There is permanent wayfinding signage to the general parking lot (FLCC G lot) from Eastbound Exit 44 on the NYS Thruway along Route 332 to Routes 5/20 to Route 364. From Westbound Exit 43, vehicles are directed down Route 21 to Hanna Road to CR 10 to Routes 5/20 to Route 364.
- Variable message signs and sandwich boards are used to promote parking areas. VIP parking at FLCC A lot is directed to Lakeshore Drive and Marvin Sands Drive.
- Law enforcement, parking attendants and CMAC staff communicate through the county Mobile Communications system/operator. This helps to coordinate when to direct traffic away from the G lot – when the G lot attendant has 250 spaces left, they notify law enforcement to begin redirecting traffic to remote lots.
- CMAC communicates with the public through social media – Facebook, Twitter, website – regarding parking options and availability in real time. The CMAC Directions and Parking webpage provides bulleted directions for three routes, a



¹² <http://cmacevents.com/AboutCMAC/CMACHistory>, as accessed 3/25/2013.



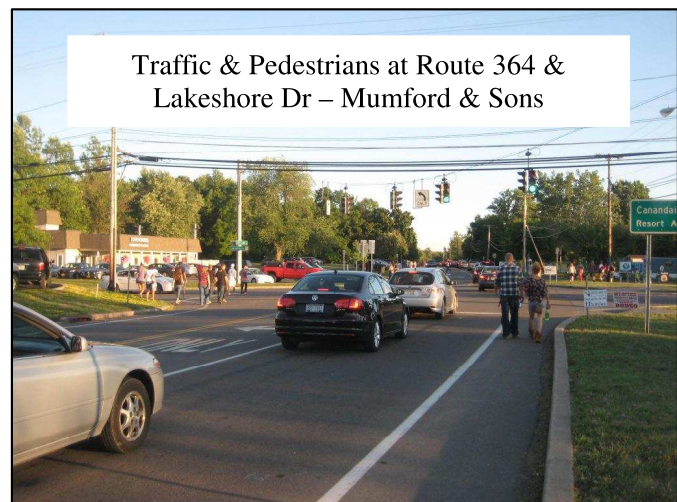
link to a Google map of the area, directions to the G lot, VIP parking, and off-site parking locations, and parking rates.

Parking:

- Parking for ticket holders is accommodated through the following official and non-official facilities:
 - General Parking (FLCC G lot) - \$10: This lot held approximately 1,700 vehicles during Tim McGraw and 1,900 during Mumford and Sons and was closed at approximately 7:30 pm for both events.
 - VIP Parking (FLCC A lot) - \$20
 - Off-site parking arrangements with TJMaxx, Rochester Linoleum/Carpet One Plaza, Parkway Plaza, County Fairgrounds, Roseland Water Park, and Raymour & Flanigan (shuttles provided by CMAC for all locations except for TJMaxx and Raymour & Flanigan)
 - Non-CMAC sanctioned parking occurs at most parcels along Lakeshore Drive, including the FLCC Honors House, at prices ranging from \$8 to \$20 and for free at larger commercial establishments like Wal-Mart, Lowe's, Big Lots, the Post Office, and Wegmans.
 - Occupancy and available capacity of off-site and non-CMAC parking areas were difficult to quantify due to the concurrent use by tenants and patrons. The following observations were noted:
 - Close-in lots were generally at capacity. Parking capacity at private lots varied with as many as 200 spaces available at Honors House.
 - During peak periods (Mumford and Sons), parking at TJMaxx exceeded the supply and illegal parking was observed.
 - Although event parking was observed at some of the more remote larger lots (Lowe's, Post Office, Wegmans), there were still available spaces to accommodate patrons of those establishments.

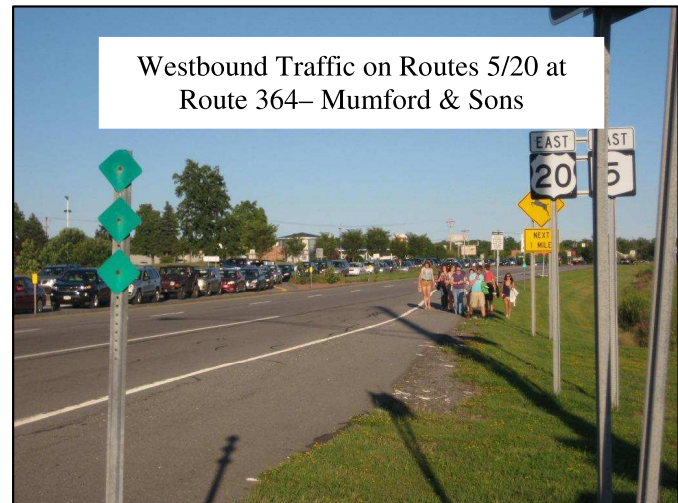
Traffic operations/enforcement:

- Ontario County Sheriff's Office deputies, New York State Police, and other county officers provide traffic control and communications assistance.
- Existing CMAC Traffic & Parking Management Plan was developed in 2008 that



documents preferred routes to the event center and its designated parking areas, incoming and outbound traffic control, parking management procedures, and wayfinding signage plans. Some information is out-of-date such as off-site parking locations and prices.

- Event genre, attendance numbers, and timing play a significant role in arrival patterns – for Mumford and Sons, it appeared attendees were more regional and not as familiar with the different parking options. Vehicles mostly came from Route 332/Main Street. The congestion on this route led to vehicles parking along Routes 5/20. A significant amount of pedestrians walked down Route 364. There were still a significant amount of vehicles and pedestrians in the area after 8:00 pm for the 7:00 pm show start. Law enforcement had to manually control the intersection of Routes 5/20 and Route 364 to increase traffic flow.

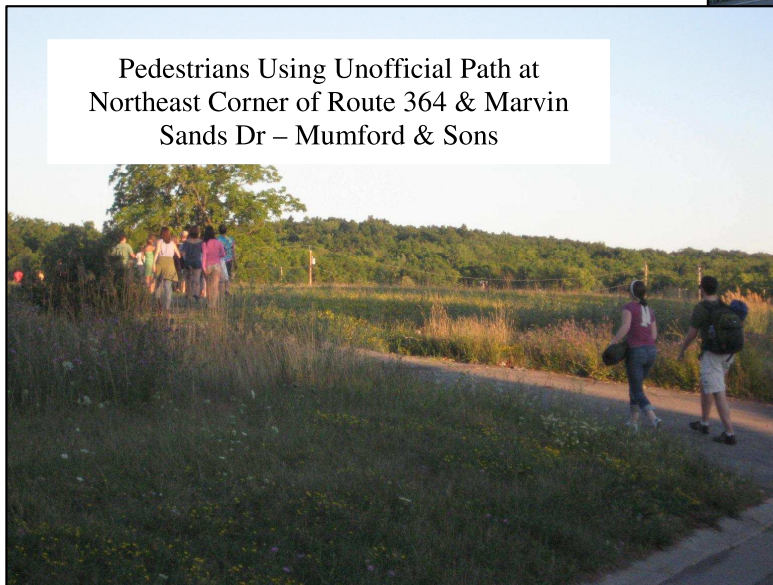
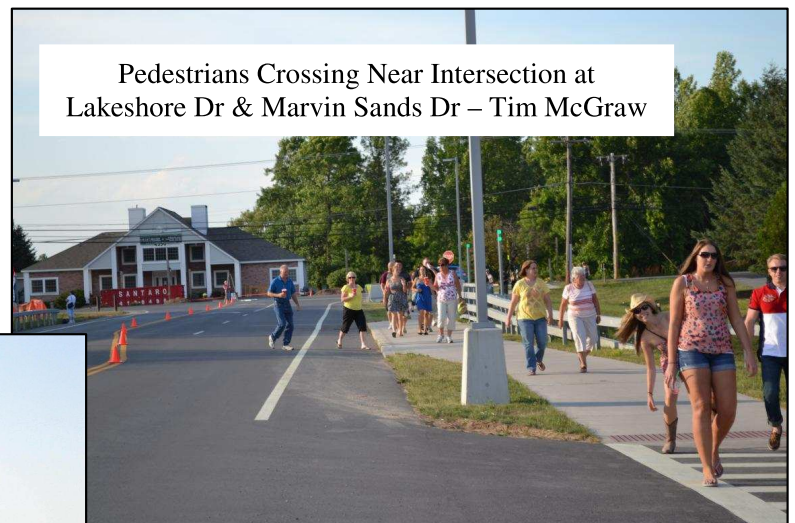


For the Tim McGraw concert, it appeared attendees arrived earlier and were more familiar with different parking options so pedestrians were more evenly distributed throughout the study area. After the G lot and Route 364 were closed, there was only a small amount of traffic to be diverted and law enforcement could leave their traffic control posts by 8:00 pm. Law enforcement observed traffic but did not have to control it until they began diverting traffic.

- Most activity comes from the west (Route 332). When Route 332 delays become high, traffic diverts to CR 10 through the City of Canandaigua.
- Entrance into general parking lot is the bottleneck point with one lane turning left onto CR 18. Even with little conflicting traffic northbound on Route 364, payment and access to the general lot contribute to the traffic delays.
- After the concert/exit:
 - The signals are typically sent to flash mode.
 - All vehicles from general parking lot are to exit onto CR 18: vehicles exiting the west driveway are directed to Route 364 and vehicles exiting the east driveway are directed towards Route 247

Pedestrians (see **Figure 2-10**):

- Pedestrians were observed in both sides of study area roadways, walking in the shoulders and overflowing to travel lanes and lawn areas. They were also observed crossing Route 364 mid-block between stopped vehicles.
- Pedestrians cut corners on private property and at intersections taking the shortest, most direct route to their destination especially at the intersection of Lakeshore Drive and Marvin Sands Drive and from Route 364 onto Marvin Sands Drive.
- Bicycles move to travel lanes, especially on Route 364, to avoid pedestrian traffic in shoulders.
- Significant vehicle/pedestrian conflicts exist along Marvin Sands Drive and Route 364 during exit. Vehicles are directed to exit onto CR 18, but vehicles have been known to drive through grass lawn areas and move barriers to exit onto Marvin Sands Drive from the G lot.





Legend

- Study Area
- Parcels
- Town Boundary
- UP Unofficial Parking
- Line Thickness Indicates Amount of Pedestrian Activity
- County Road
- State Highway
- US Highway

0 750 1,500 Feet

Special Event Pedestrian Patterns & Parking Areas (Tim McGraw Concert 6/29/12 @ 7:30 pm)

1 inch = 750 feet
(When printed on 8.5" X 11")



Figure 2-10
Date: 12/12/2012





2.2 Public Participation

The thoughts and opinions of the people who live, work, and play in or near the study area were obtained through 4 different methods:

1. A steering committee was established at the outset of the study to provide the local insight, guidance, and direction for the project. The committee's role was to provide data resources, identify existing and future needs, brainstorm alternatives, and review documents and public presentation materials throughout the study process. The committee members represented the following agencies/organizations:

- Ontario County Department of Public Works
- Ontario County Planning
- New York State Department of Transportation, Region 4
- Town and City of Canandaigua
- Town of Hopewell
- FLCC
- CMAC
- Genesee Transportation Council

Steering committee meeting minutes are included in **Appendix B**.

2. While the committee helped to guide the project, the stakeholders provided much of the data needed to develop the plan as well as thoughts on gaps in the existing transportation system and potential recommendations. Interviews were held at 4 different times on Tuesday, August 28th, 2012. Over 30 potential stakeholders were invited to attend from 20 different organizations, groups, or agencies (* indicates representation at one of the stakeholder interviews):

- Ontario County Department of Public Works*
- Ontario County Planning
- Ontario County Traffic Safety Board*
- New York State Department of Transportation, Region 4
- Town and City of Canandaigua*
- City of Canandaigua police and fire departments
- Town of Hopewell*
- Town of Hopewell fire department*
- FLCC*
- CMAC*
- Genesee Transportation Council*
- Ontario County Sheriff's Department*
- New York State Police*



- Canandaigua Chamber of Commerce*
- Transit providers (CATS, Ontario County ARC)
- Local businesses/organizations (Roseland Bowl*)
- Homeowners associations

A summary of the stakeholder interviews is included in **Appendix C**.

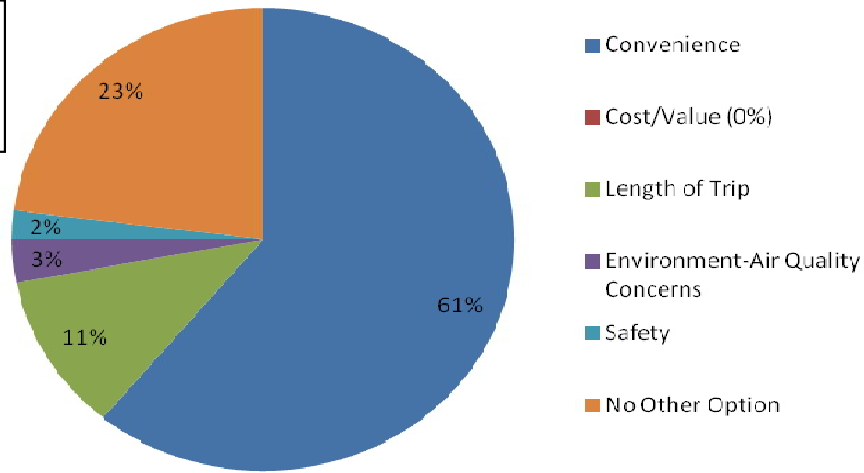
3. A web-based survey of FLCC employees and students was conducted in order to document employee and student commuting habits as well as assess opinions and preferences about parking options and alternative modes of transportation including transit. Separate employee and student surveys were created and launched on October 22nd, 2012 and were live through February 2013. The surveys were advertised by FLCC through email notifications, a newsletter article, and promoted during the first public meeting held at the FLCC student center.

The response rate for the employee survey was approximately 20% but there were only 6 student responses. Detailed survey information and responses are provided in **Appendix D** but the following is a summary of results from the employee survey:

- 32% of respondents live in Canandaigua
- 29% arrive between 8 – 8:30am (47% arrive between 8 – 9 am)
- 31% leave between 4 – 4:30pm (53% leave before 4:30pm)
- Mode Share
 - 93% drove alone (56 respondents)
 - 1 respondent biked to work everyday
 - 3-4 people carpooled to work
 - No one used public transit or walked
- Top reasons for driving alone:
 1. Need car for errands before/after work
 2. Hours are irregular
 3. Enjoy my privacy/prefer to drive alone
 4. Difficult finding others to carpool with
 5. Driving alone takes less time
 6. Public transit schedules/routes don't work



Why have you chosen
your current commute
method?



- Top 3 incentives/services needed to change commute method (most respondents not likely to change):
 1. Improved transit routes/schedules
 2. Guaranteed ride home
 3. Flexible hours to accommodate transit schedules
 - Top 3 incentives noted associated with transit but carpooling was most likely to be considered other than driving alone
4. Public information meetings were held in order to present existing conditions information, obtain feedback on issues and needs, and present the preferred recommendations of the study.

The first public meeting was held on January 31, 2013 at the FLCC Student Center from 4:00 – 6:00 pm. It was an open house style meeting that was meant to provide the public with information on the study area transportation system's strengths, weaknesses, and areas in need of improvement. A meeting notice card was sent to the steering committee, stakeholders, FLCC employees and students, and advertised on a number of websites: Ontario County, Town of Hopewell, CMAC, and YNN.

You Are Invited!

You're invited to attend an open house for the
RTS 5/20 & 364 Multi-Modal Safety & Access Improvements Study
—an effort to improve safety and accessibility for pedestrians, bicyclists, and motorists in the area surrounding FLCC and CMAC.

Public Open House

Finger Lakes Community College, Student Center, 2nd Floor Lobby
3325 Marvin Sands Drive • Canandaigua, NY 14424 • Free parking in "A Lot"

January 31, 2013 • 4:00 – 6:00 PM

Review and comment on the transportation system's strengths, weaknesses, and areas in need of improvement.

Please contact the Ontario County Department of Public Works if you have any questions or comments at Timothy.McElligott@co.ontario.ny.us or (585) 396-4000.





The second public meeting was held on Thursday, May 16, 2013 at 7:00 pm at the Ontario County Safety Training Building. At this meeting, an overview of the project including the project purpose, existing conditions, needs assessment, and discussion of alternatives was presented with questions and comments addressed throughout the meeting. The meeting was similarly advertised and over 20 people attended, participated in meaningful discussions, and provided valuable feedback.

The public meeting materials and summaries are included in **Appendix E**.

2.3 Previous Plans and Studies

Existing studies and plans were reviewed in order to extract the relevant data, findings, and recommendations in these documents that related to the transportation network in the study area. Existing conditions information was noted in previous sections of this document. **Table 2-6** lists the documents reviewed and summarizes the key recommendations from these studies.

Table 2-6 – Recommendations from Previous Plans and Studies

Report/Document Title	Agency/Entity	Author	Date	Recommendations
Capital Improvement				
Routes 5&20 Corridor Management Plan	Ontario County	peter j smith & co, inc.		<ul style="list-style-type: none">- Reduce volumes and speeds on RTS 5/20/work with NYSDOT<ul style="list-style-type: none">• Streetscaping• Shared parking• Service roads• Gateway treatments• Encourage alt modes- Connect parking lots to reduce ingress/egress to main roads
NYS Routes 5/20 Corridor Study - Lima to Canandaigua	GTC - Ontario Co (lead)	FRA Planning	Feb-04	<ul style="list-style-type: none">- Restripe in and approaching villages for traffic calming and providing parking- Signage<ul style="list-style-type: none">• Create gateways• Direction/wayfinding – tourism• Warning<ul style="list-style-type: none">o Share the roado Sight distanceo Changes in speed zones- Landscaping and lighting – create gateways and improve safety



Capital Improvement Cont.				
Canandaigua Regional Transportation Study	GTC - Ontario Co (lead)	Clark Patterson Associates	May-06	<ul style="list-style-type: none"> - Additional bus stops - Improvements at RTS 5/20 & CR 10 - New bus route along RT 364 - Additional park and ride stations
Trails Master Plan	Town of Canandaigua	Parks & Rec - Town of Can	2010	<ul style="list-style-type: none"> - Recommend sidewalks on: <ul style="list-style-type: none"> • Moran • Lakeshore from RT 364 to townline • RT 364 from CR 18 to Lakeshore • Marvin Sands from RT 364 to FLCC • Encourage Town of Hopewell to extend sidewalks on Lakeshore from townline to RTS 5/20
Active Transportation Plan - Canandaigua	Canandaigua Walkers & Cyclists	Bill Taylor	2009	<ul style="list-style-type: none"> - Provide bike lanes on RT 364, Marvin Sands Dr, Moran Rd & Lake Shore Dr - Provide sidewalks on Lake Shore Dr - Provide off-road multi-use trail on Lake Shore Dr (west of the study area) - Provide share the road signs as needed - Provide enhanced crosswalks at the intersections of RTS 5/20 with RT 364, CR 10 & Lake Shore Dr and at the intersection of Lake Shore Dr & Marvin Sands Dr
Policy/Planning				
Routes 5&20 Corridor Management Plan	Ontario County	peter j smith & co, inc.		<ul style="list-style-type: none"> - Update comprehensive plans - Prepare open space plan - Explore feasibility of obtaining lands for protection - Stimulate agricultural economy - Identify new historic sites - Hire grant writer - Update zoning to ensure denser development occurs in hamlets <ul style="list-style-type: none"> • Establish cluster mixed-use development • PUDs - Establish compatible zoning at townlines - Revise subdivision regulations to limit development of individual homes along RTS 5/20 - Develop site design guidelines



Policy/Planning Cont.

NYS Routes 5/20 Corridor Study - Lima to Canandaigua	GTC - Ontario Co (lead)	FRA Planning	Feb-04	<ul style="list-style-type: none"> - Create preservation/enhancement funds <ul style="list-style-type: none"> • Protect viewsheds • Beautification projects • Protect historic areas - Develop corridor as NYS Scenic Byway – has this been done? - Market and promote corridor and tourist attractions along corridor (www.routes5and20.com) - Pursue recreational opportunities (parks, trails, etc) - Develop overlay districts to enable development while maintaining character - Identify funding sources
Town of Canandaigua Comprehensive Plan 2011 Update	Town of Canandaigua	edr Companies	2011	<ul style="list-style-type: none"> - Establish an access management program that addresses all town roadways - Work with State/County trans officials to reduce speed limits where to necessary to be consistent with neighborhood character and address safety and noise concerns - Require all future streets to be built to town's design standards and consider complete streets design - Support work of the trails committee - Plan for and provide adequate maintenance of the town-owned roadways - Keep the town's roadways safe for all users - Consider the needs of pedestrians and bicyclists during transportation planning



Policy/Planning Cont.				
Town of Hopewell Comprehensive Plan	Town of Hopewell	CPA	2006	<ul style="list-style-type: none"> - Draft a separate set of design standards for the 5/20 corridor that will help developers understand the vision of the community and decision makers implement the desired appearance, scale and context for future commercial development - Ensure future development adheres to access management techniques including shared driveways, cross-parcel access and adequate sight distances - Using traffic accident reports, identify locations where pedestrian and auto conflicts have occurred - Develop a ped safety and system enhancement plan - Develop a ped safety fact sheet to be mailed to residents on an annual basis - Identify key gateway locations for new community signage and landscaping
Active Transportation Plan - Canandaigua	Canandaigua Walkers & Cyclists	Bill Taylor	2009	<ul style="list-style-type: none"> - Pass complete streets policy in all municipalities and county - Support & investigate Safe Routes to School programs & grants - Prepare action plan toward Bicycle Friendly University designation
Services/Programs				
Ontario County Fixed Route Evaluation - Final	Ontario County	Nelson Nygaard	Feb-10	<ul style="list-style-type: none"> - Connect FLCC main campus to Sci-Tech campus planned in Victor - CATS needs more marketing and outreach - Ped access important – changes or new services should keep ped access in mind - Target FLCC for marketing campaign - Provide more infrastructure at FLCC
Town of Canandaigua Comprehensive Plan 2011 Update	Town of Canandaigua	edr Companies	2011	<ul style="list-style-type: none"> - Work with Ontario County to provide the level of public transit that meets the community's needs
Active Transportation Plan - Canandaigua	Canandaigua Walkers & Cyclists	Bill Taylor	2009	<ul style="list-style-type: none"> - Add bicycle racks on all CATS buses - Provide more shelters with bike storage - Make schedules more compatible with student/faculty at FLCC



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3. Needs Assessment

The existing conditions inventory, observations, and public participation process have all informed the cataloging of needs for the transportation system in the study area. This list of needs, broken down by users or modes served, is shown below.

Vehicular traffic needs:

- Realignment and/or additional signal heads at intersections of Routes 5/20 with County Road 10 and Route 364
- Improved lighting at intersections
- Signal at Lakeshore Drive with Moran Road and Marvin Sands Drive
- Need more speed enforcement on Routes 5/20

Bicycle/pedestrian needs:

- Sidewalks & crosswalks along Routes 5/20 between County Road 10 and Lakeshore Drive, Lakeshore Drive, Moran Road, Route 364, and the west side of Marvin Sands Drive
- Bike lanes or marking and signage
- More bicycle/pedestrian infrastructure and warning signage (racks, lanes, shelters, etc)
- Pedestrian-level lighting
- More direct designated pathways with crosswalks to CMAC/FLCC
- Make parking lots more bicycle/pedestrian friendly
- Discourage jaywalking on Routes 5/20 behind Honors House
- Snowplowing needs to push snow farther from travel lane so pedestrians do not have to walk in travel lanes

Transit needs:

- More direct, reliable transit routes to reduce travel time
- Make information on available services/routes easier to find and understand
- Increase/promote safety of buses and drivers
- Bike racks on buses
- Service between different FLCC campuses within Ontario County and with the Newark campus in Wayne County
- Connection between Main Street in Canandaigua and FLCC
- Provide more direct services to CMAC events

FLCC Campus needs:

- Have limited access to D lot – perceived as unsafe for pedestrians
- Not enough Blue Emergency lights/more security – especially to/from G lot
- Shuttle between G lot and campus
- Too many conflict points near main entrance



- More bicycle/pedestrian infrastructure and security (racks, lanes, shelters, etc)

CMAC special event needs:

- Updated traffic management plans
- Consider both auto and pedestrian traffic control
- Improve traffic flow and access to G lot
- Improve pedestrian environment and discourage use of private property as pathways
- Improve communications associated with parking options/availability to improve traffic flow:
 - Wayfinding
 - Notification of appropriate parking area

4. Recommendations

The recommendations developed for the study area fall into three category types:

- Capital improvement recommendations – physical installation, reconstruction, or construction improvements;
- Service and program recommendations – transit improvements, special event operational improvements, or educational/promotional programs; and
- Policy and planning recommendations – zoning code ordinance changes, special event planning, or shared maintenance agreements.

Figure 4-1 graphically shows the capital improvement recommendations throughout the study area. The following sections describe all of the study recommendations, including some alternatives considered, in more detail.

4.1 Vehicular Recommendations

- ***Install lighting***

High-level lighting exists on Routes 5/20 from the west to the intersection with County Road 10. This lighting should continue through the intersection with Lakeshore Drive. Intersection-level lighting should also be installed at the following intersections:

- Lakeshore Drive and Moran Road
- Lakeshore Drive and Marvin Sands Drive
- Route 364 and Marvin Sands Drive
- Route 364 and County Road 18



Lighting on Routes 5/20 west
of study area

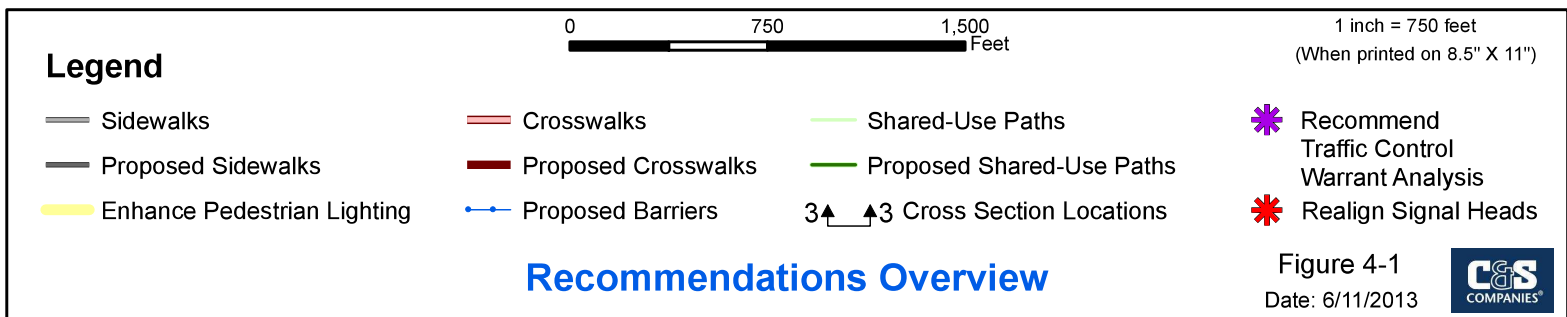
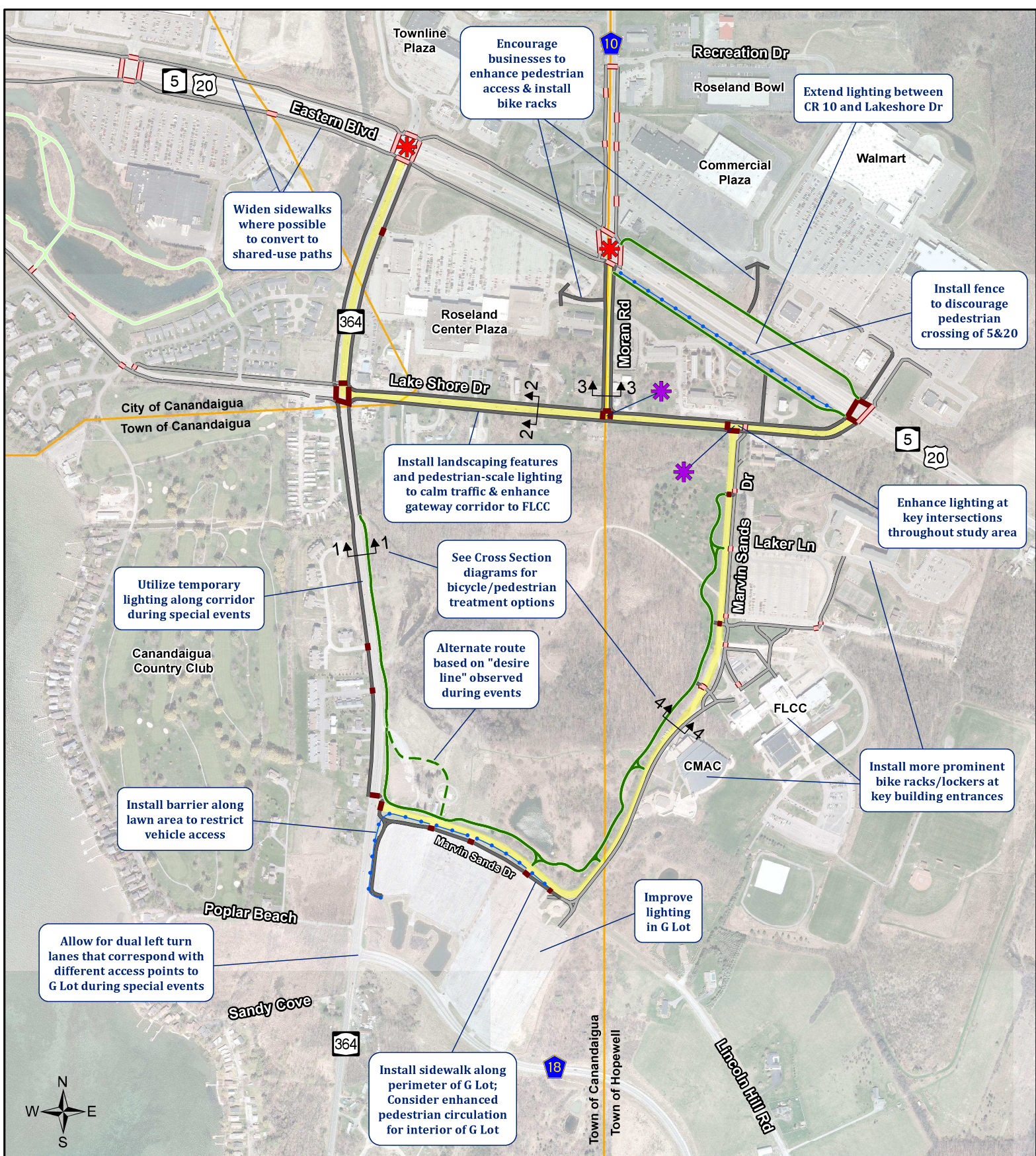
Additional lighting is also recommended in FLCC's G lot not only for typical campus activities but during CMAC events as well. Additional lighting in this parking lot will increase safety and security for all users of the lot.

- ***Conduct traffic control warrant analyses***

Due to complaints of long delays and conflicts with pedestrians, it is recommended that traffic control warrant analyses be conducted at the intersections of Lakeshore Drive with Moran Road and Marvin Sands Drive. The Manual of Uniform Traffic Control Devices (MUTCD) provides guideline warrants to be evaluated when considering the installation of all-way stop control at an intersection based on volume data, accident history, and vehicular delay information.



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- ***Realign/add traffic signal heads at Routes 5/20 intersections***

The Routes 5/20 approaches to the intersections with Route 364 and County Road 10 are very wide with dedicated left turn lanes, striped medians, two through travel lanes, and dedicated right turn lanes in some locations. The signal heads, especially those meant to guide the dedicated left turn lane traffic, are not aligned adequately with the travel lanes.



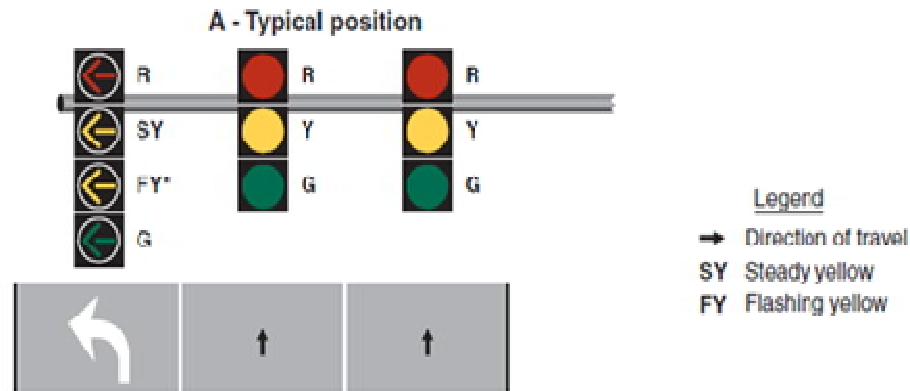
It is recommended that traditional 3-indication signal heads are installed over the through travel lanes and the 5-indication left turn lane signal heads are adjusted to align with the center of the dedicated left turn lanes on Routes 5/20 at the intersections with Route 364 and County Road 10.

As an alternative, the relatively new flashing yellow indication was considered for these locations. This would involve the installation of a 4-arrow indication signal head over the dedicated left turn lane with the 3-indication heads realigned over the through travel lanes as shown in the following diagram from the MUTCD. After discussing this alternative with the steering committee and public, it was determined that the traditional heads with the necessary realignment and additional heads was preferred.

2009 Edition

Page 473

Figure 4D-12. Typical Position and Arrangements of Separate Signal Faces with Flashing Yellow Arrow for Protected/Permissive Mode and Protected Only Mode Left Turns



- ***Install landscaping along Lakeshore Drive and Moran Road***

The installation of landscaping trees and other features along Lakeshore Drive and Moran Road will not only calm traffic and potentially lower speeds along these two local roadways, it will also help to create a sense of place and community in the area.

4.2 Bicycle/Pedestrian Recommendations

- ***Install sidewalks throughout the study area***

Sidewalk currently exists on both sides of Routes 5/20 west of County Road 10 and on the east side of Marvin Sands Drive from the CMAC box office building to Lakeshore Drive. Sidewalk recommendations along Route 364, Lakeshore Drive, Moran Road, and Marvin Sands Drive are shown in **Section 4.6** as part of the roadway cross section discussion. All sidewalks are recommended to be 8 feet wide in order to be maintained by a pick-up truck plow instead of special equipment and accommodate higher levels of pedestrian traffic during special events.

Not shown in a cross section, it is recommended that sidewalk along Routes 5/20 is extended on both sides of the roadway from County Road 10 to Lakeshore Drive. Since the existing sidewalk is offset and meandering along Routes 5/20, this layout should be continued. In order to promote these sidewalks as shared use paths, they should be 8 to 10 feet wide. As maintenance is required on the existing paths along Routes 5/20, widening should be considered to match the width in the proposed sections. Also not indicated in a cross section, sidewalk

should be installed along Route 364 and Marvin Sands Drive adjacent to the G lot.

- ***Install pedestrian-level lighting***

Different than intersection- or high-level lighting, pedestrian-level lighting is situated lower to the ground in order to illuminate sidewalk areas and is typically more ornamental in nature. It is recommended that pedestrian-level lighting, like that recently installed on Lakeshore Drive west of Route 364, is installed along Lakeshore Drive and Moran Road. Recommended lighting on Route 364 different for each side of the roadway and is discussed in **Section 4.6**.



There is currently lighting along portions of Marvin Sands Drive, so it is recommended that additional lighting is installed where necessary to fill lighting gaps, especially along the west side of the roadway.

- ***Install enhanced crosswalks***

Numerous sidewalks are recommended to be installed throughout the study area as shown in **Figure 4-1**. Existing crosswalks in the study area include the ladder striping as shown in the top picture at the right on Lakeshore Drive at Marvin Sands Drive.



A more enhanced crosswalk treatment to consider is an integrated pavement installation. This type of crosswalk involves imprinting a pattern into a layer of pavement that is pigmented with color which may also include a thermoplastic material. This integrated pavement treatment is 4 to 5 times more expensive than traditional striping but holds up to high traffic, weather-wear, and enhances visibility and the area's aesthetics.



Where crosswalks are installed but there is no traffic control for the roadway that it is crossing, warning and advanced warning signage is recommended to warn approaching motorists of the potential for pedestrians crossing.

- ***Install bike accommodations throughout the study area***

Accommodations for bicyclists are recommended on all roadways in the study area but they vary in form. **Figure 4-1** indicates the bicycle facilities recommended for each roadway but they are summarized below:



- Maintained 8 foot wide (minimum) shoulders on Routes 5/20 and Route 364 with bicycle warning signage
- Five foot wide dedicated bicycle lanes on Lakeshore Drive and Moran Road
- Shared-use path along the east side of Route 364 that continues to the north side of Marvin Sands Drive along G lot and northward along the west side of Marvin Sands Drive

These recommendations are described in more detail in **Section 4.6**.

- ***Install bicycle parking/amenities***

One bicycle rack exists on the FLCC campus, but additional racks should be installed throughout the study area at on- and off-campus housing developments, commercial and retail establishments, and on CATS buses. The American Association of State Highway and Transportation Officials' (AASHTO) *Bicycle Guidelines* recommend that bicycle racks should:

- Not bend wheels or damage other bicycle parts
- Accommodate high-security U-shaped bike locks
- Accommodate locks securing the frame and both wheels (preferably without removing the front wheel from the bicycle)
- Not impede or interfere with pedestrian traffic
- Be easily accessed from the street and protected from motor vehicles
- Be visible to passersby to promote usage and enhance security
- Be covered where users will leave their bikes for a long time
- Have as few moving parts as possible
- Accommodate a wide range of bicycle shapes and sizes
- Be simple to operate

The figures below show AASHTO recommended and not recommended racks:

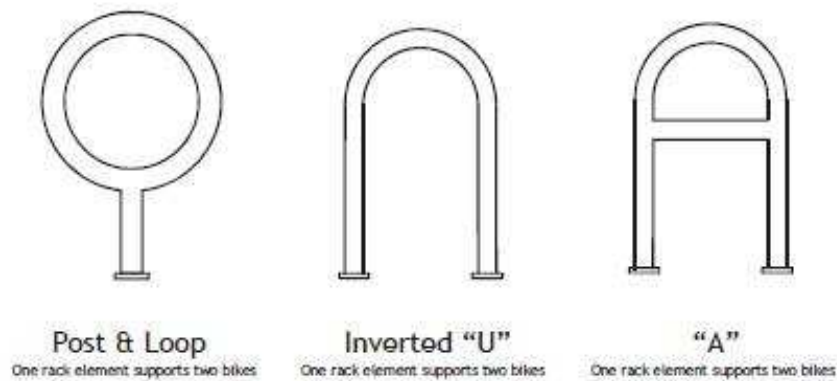
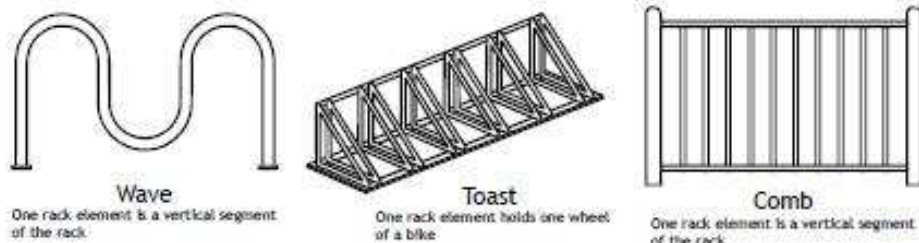


Figure 17-3. Illustrations. Recommended types of bicycle racks.
Source: *Bicycle Parking Guidelines*⁽³⁾



These bicycle racks are not recommended

Figure 17-4. Illustrations. Bicycle rack types that are not APBP-recommended.
Source: *Bicycle Parking Guidelines*⁽³⁾

For increased security and to provide weather protection for long-term parking, bicycle lockers and/or shelters should also be installed where space is available.

- Install fencing on Routes 5/20 between County Road 10 and Lakeshore Drive**
 A pedestrian pattern noted during one of the public meetings was crossing Routes 5/20 between County Road 10 and Lakeshore Drive between the student housing developments along Lakeshore Drive and the commercial properties on the north side of Routes 5/20. While a crosswalk exists across the east approach of Routes 5/20 at Lakeshore Drive, students walk across lawn areas and cross Routes 5/20 between intersections. To discourage this pattern, it is recommended that a barrier in the form of a wooden fence be installed along the south side of Routes 5/20 between County Road 10 and Lakeshore Drive.

4.3 Special Event Recommendations

- Develop various special event traffic management plans**
 The latest version of the CMAC Traffic Management Plan was created in 2008. This plan indicated the preferred incoming and outgoing routes, on-site and remote parking locations and prices, and information on law enforcement



cooperation. Beyond updating the demographic, routing and parking information in the existing plan, it is recommended that due to the variety of times and types of events, multiple event plans are developed in order to accommodate the different traffic patterns and needs associated with them. The observations of the Tim McGraw and Mumford & Sons concerts showed how two concerts can have significantly different traffic arrival patterns. The updated plans would provide communications protocol and anticipated law enforcement participation. They would also provide guidance on which routes would be taken and which parking areas would most likely be utilized for which type and/or size of events.

- ***Improve special event communications***

While updating communications protocol would be a part of updating traffic management plans, it is recommended that communication with the event attendees is improved as well. CMAC currently provides a Directions and Parking page as their website and uses a variety of social media outlets such as Facebook and Twitter to provide the latest parking and traffic information the day of events. The following recommendations are to build upon the existing efforts by CMAC:

- Increase the size of the variable message signs (VMS) used to direct traffic and consider signs that can be controlled remotely to change messages and reroute traffic in the moment when congestion is significant
- Assign parking lot designations with advanced parking sales to reduce confusion and searching for parking lots at the event
- Incorporate QR codes (quick response codes) on tickets and/or signage at parking lots and at the event center providing direct access to the CMAC website and latest parking and traffic information
- Update the CMAC Directions and Parking webpage to include:
 - Access Map – show alternative routes labeled to correlate with text descriptions and the location of remote parking areas served by shuttles
 - Parking Map – color code the following parking locations and include pricing information:
 - CMAC General Parking (FLCC G lot)
 - CMAC VIP Parking (FLCC A lot)
 - Off-site parking (TJMAXX, Rochester Linoleum & Carpet, anywhere CMAC has arranged parking agreements, and general location of private parking areas with text indicating these lots are privately operated and fees vary)
 - Link to sign up for social media to receive information and updates

- ***Improve traffic flow into CMAC General Parking (FLCC G lot)***

With close to 2,000 vehicles parking in the G lot during the largest events, the access to the lot becomes the bottleneck that backs traffic up Route 364 to Routes

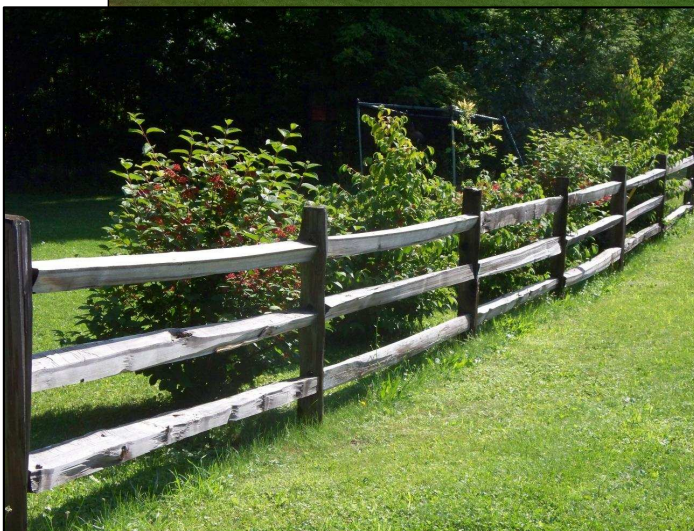
5/20, Route 332, and County Road 10. There is currently a dedicated left turn lane and a through travel lane southbound on Route 364 at County Road 18 where G lot is accessed. It is recommended that during special events, a second left turn lane is delineated using cones and the limited southbound through traffic is directed to use the shoulder. Each turn lane would then be directed to a correlating access point to G lot, thereby increasing traffic flow into the lot. Temporary signage should be used to inform motorists and bicyclists of the different traffic pattern. Bicyclists will need to share the shifted through lane in the shoulder if they are traveling southbound during a special event and motorists need to be aware of their potential presence.

- ***Install permanent barrier between G lot and Marvin Sands Drive***

The access points from the G lot onto Marvin Sands Drive are blocked to prohibit vehicles from avoiding the queues waiting to exit onto County Road 18. Law enforcement observation reports indicated concerns with vehicles driving through lawn areas to access Marvin Sands Drive because of the direct conflict with pedestrians walking from the event center to Route 364. Recently, boulders have been placed on the perimeter of G lot along Marvin Sands Drive as shown below.



Existing boulders (above)
Example post and rail fence (right)



It is recommended that a more permanent and aesthetically pleasing barrier is installed. A simple post and rail fence should be installed that will not only prohibit vehicles from accessing Marvin Sands Drive but will also help to delineate the recommended sidewalk and pedestrian area for event attendees.



4.4 Service and Program Recommendations

- ***Market and promote existing CATS services***

While CATS information is provided on a number of webpages on the County's website, a more significant marketing and promotion campaign is recommended to better inform the public, especially FLCC students, faculty, and staff, on existing service routes, service times, stops, prices, etc. This information should be distributed through updated webpages, printed route and schedule information available throughout FLCC and other commercial and residential establishments, and through social media updates. Beyond providing printed materials at FLCC, CATS could set up a display table or booth in the Student Center at key points throughout each semester or during different students events to specifically market services to student, faculty, and staff.

- ***Provide additional CATS routes and services***

Feedback from the FLCC surveys and public meetings indicated a need for CATS to provide more frequent service and direct routes to reduce travel and wait times. Specifically, it is recommended that the feasibility of adding service between the different FLCC campuses (Geneva, Victor, and Newark), to and from CMAC events, and between FLCC and Main Street in downtown Canandaigua is studied. CATS service to the FLCC Newark campus would require a change to their service area since Newark is in Wayne County.

- ***Market and promote active transportation and transportation demand management programs at FLCC***

In much the same way existing transit services should be marketed and promoted, active transportation should be the focus of a campaign to encourage the use of alternative modes of transportation in the study area. A public outreach campaign would include the following elements:

- Educate and promote the benefits of active transportation (walking and bicycling) to the general public with a focus on FLCC employees and students.
- Establish transportation demand management initiatives at FLCC – FLCC currently promotes carpooling with dedicated spaces allocated to those that obtain a carpool permit but other initiatives could include creating a ride matching program to match potential carpoolers together based on home location and time on campus, subsidizing transit passes and/or providing passes on site for purchase, and developing a reward system for those that chose to walk or bicycle to campus regularly.
- Educate the public on the rules of the road and safety regulations associated with bicycling and pedestrian right-of-way, bicycle hand signals, and required/recommended safety equipment.



The campaigns could include up-to-date information on the County and FLCC websites with links to reference materials, printed materials such as brochures or flyers available throughout the study area and County in general, or even radio or television commercial spots.

4.5 Policy and Planning Recommendations

- ***Strengthen bicycle/pedestrian language in Towns of Canandaigua and Hopewell Zoning Code***

The existing language in the zoning code for both the Town of Canandaigua and Hopewell contain language that briefly touch on pedestrian accommodations or infrastructure requirements, but neither address bicycle accommodations. **Tables 4-1 and 4-2** on the following pages describe proposed changes to the code language that should be considered:



Table 4-1: Town of Canandaigua Zoning Code Recommendations

Chapter	Article	Description
Chapter 174 Subdivision of Land	Article III, 174-23	Provision of sidewalks is currently dependent on the request of the Planning Board. Consider strengthening this language to place the burden on the developer to demonstrate why the physical characteristics of the site would present significant challenges to the provision of sidewalks (as opposed to the Planning Board or the developer citing financial constraints or simply expressing that they do not think sidewalks are necessary).
Chapter 220 Zoning	Article V, 220-28E(4)(b)	Change to “All interior streets, roads, <u>sidewalks</u> , easements and their planned public or private ownership, as well as all points of access and egress from existing public rights-of-way.”
	Article V, 220-31 Incentive Zoning District	Consider inclusion of multi-use or shared-use trails as a community benefit or amenity (whereas sidewalks should be required in appropriate circumstances, as outlined in additional recommendations found below). Promoting active and sustainable transportation should be mentioned as a planning objective of the incentive zoning program in 220-31 C.
	Article VII, 220-69 Preliminary Site Plan Checklist C(3)(k)	Change to “Location and width of all proposed streets, alleys, <u>sidewalks</u> , rights-of-way and easements.”
	Article VII, 220-71 Planning Board Findings E(1)	Change to “Safe and efficient circulation and access for motor vehicles, bicyclists, and pedestrians.”
	Article VIII, 220-73 A	Consider including provision for landscaped medians and pedestrian walkways within large parking lots.
		Consider including requirement for bicycle parking at commercial/institutional locations. This could be limited to certain commercial districts, such as CC, as opposed to requiring them for all businesses throughout the town. Shared bike parking could be allowed, such as an installation that serves multiple out-parcels in front of a big box retailer.
		Consider requiring parking to be in rear or side yards, with developers given the opportunity to demonstrate why front-loaded parking is necessary due to the physical characteristics of the site.



Table 4-1 Cont.

Chapter	Article	Description
Chapter 220 Zoning (cont.)	Article VIII, 220-75 Access Control H Traffic Impacts from Large Developments (2)	Change to “Large developments may be required to mitigate the traffic impacts of their development. Required mitigation may include but is not limited to the construction of signals, turning lanes, medians, pedestrian and bicycle circulation and access, combined and shared driveways, and internal service or access streets, and implementation of transit improvements and/or traffic demand management strategies.”
	Article VIII, 220-75 Access Control I Incentives	Consider inclusion of pedestrian and bicycle accommodations and amenities into the list of incentives.
Chapter SDD – Site Design and Development Criteria	Article II, 2.5 B Design criteria for different road classifications	For Town Collectors, Subdivisions, and Minor Subdivision, consider requiring the consideration of bicycle accommodations (bike lanes, sharrows, or improved shoulders as well as associated signage) as design criteria.
		For Subdivision and Minor Subdivision, consider requiring sidewalks on all residential subdivisions within _____ Zoning Districts.
	Article II, 2.14 Sidewalks	Consider strengthening the language by stating that, “at a minimum, sidewalks shall be required along all dedicated roads within residential subdivisions proposed to be within _____ Zoning Districts. This requirement may be waived, at the discretion of the Planning Board, should the applicant demonstrate that the physical characteristics of the site present significant challenges to the provision of sidewalks.”



Table 4-2: Town of Hopewell Zoning Code Recommendations

Section	Sub-section	Description
1105 Off-street Parking and Loading Standards by Usage	New	Consider adding a sub-section that requires bike racks be installed at commercial/institutional locations. This could be limited to certain commercial districts, such as C-1, H-MU, and SB-MU, as opposed to requiring them for all businesses throughout the rural town. Shared bike parking could be allowed, such as an installation that serves multiple out-parcels in front of a big box retailer.
1106 Design Standards for Off-street Parking Spaces	A	Sub-section A intends to reduce front-loaded parking. Consider strengthening this provision by placing the burden of proof on the developer to demonstrate why parking is necessary in the front vs. side/back of building.
1603 Preliminary Site Plan Application	B	Sub-section B has a list of items to be shown on a Preliminary Site Plan. Item #8 should be changed to "Provision for pedestrian access and <u>circulation</u> ." Consider adding an additional item: "Provision for bicycle access, circulation, and parking."
1604 Planning Board Review of Preliminary Site Plan	A	Sub-section A outlines the General considerations of the Planning Board when reviewing a Preliminary Site Plan. Item #2 mentions "adequacy and arrangement of pedestrian traffic and circulation". The item further states, "At a minimum, sidewalks shall be required along all dedicated roads on lots within 1,000 feet of a school, park, or residential concentration or at the discretion of the Planning Board." Consider strengthening this statement by changing it to: "At a minimum, sidewalks shall be required along all dedicated roads within residential subdivisions proposed to be within _____ Zoning Districts. This requirement may be waived, at the discretion of the Planning Board, should the applicant demonstrate that the physical characteristics of the site present significant challenges to the provision of sidewalks."
	New	Consider adding an additional item to the list in 1604 A: "Adequacy and arrangement of bicycle traffic access, circulation, parking, and overall bicycle safety and convenience. At a minimum, bicycle racks shall be provided for all commercial and institutional properties within _____ Zoning Districts."
1700 Planned Unit Development (PUD)	B	Sub-section B lists the Objectives of a PUD. Consider adding another item to the list: "Provision of facilities for multiple modes of transportation, including walking, biking, and where appropriate, public transportation."
	D. 2. G.	Change to "Principle ties to the community at large with respect to transportation (<u>pedestrian, bicycle, automobile, and public transportation</u>), water supply, and sewage disposal."



- ***Establish shared-maintenance agreement***

The study area consists of land associated with three different municipalities, a college and event center. A shared-maintenance agreement will clarify the roles and responsibilities of each municipality and/or institution in the study area and ensure that there are no gaps in services like snow removal, sidewalk clearing, or landscaping maintenance.

4.6 Roadway Cross Sections

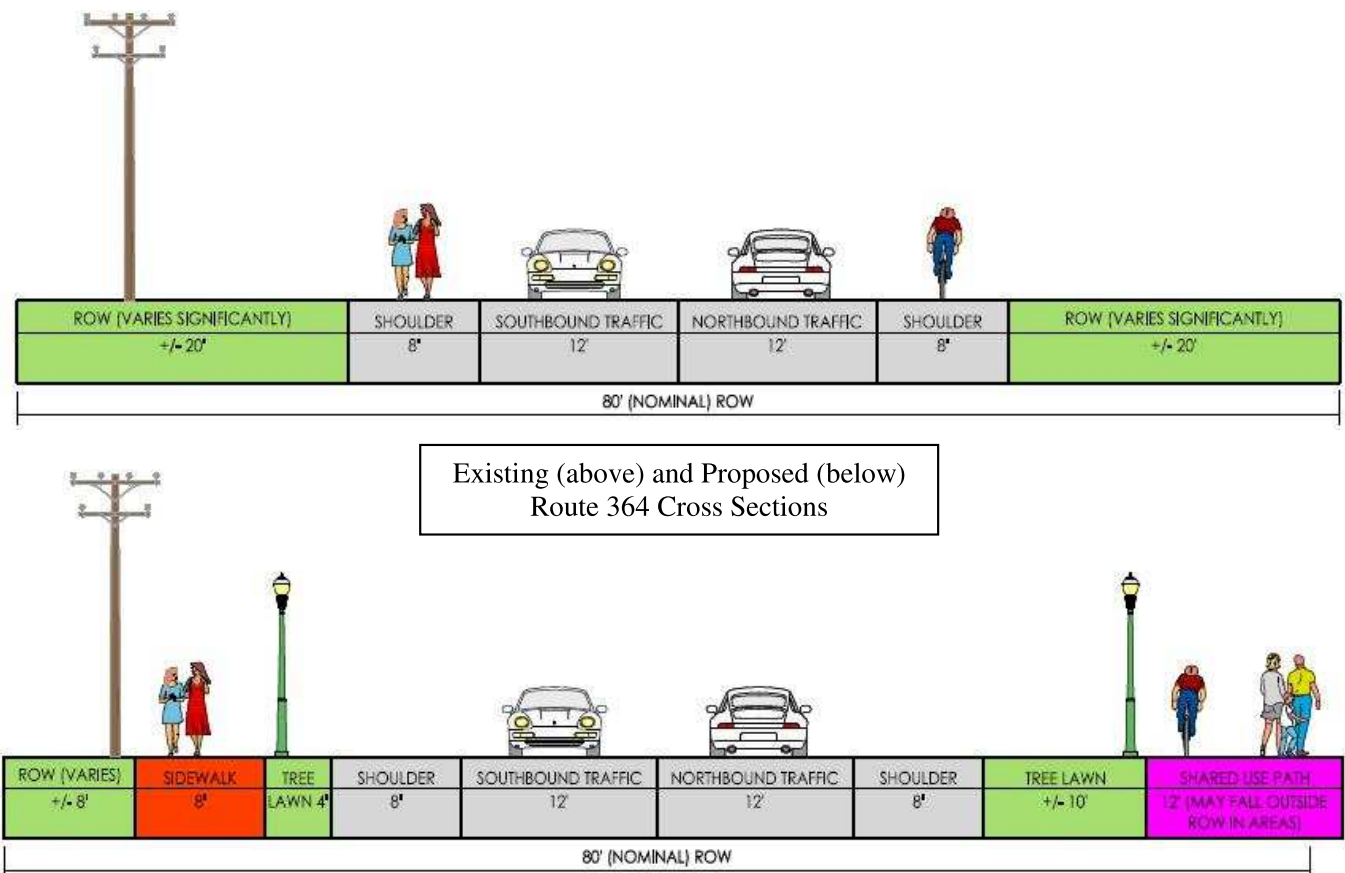
Roadway cross sections were developed to schematically indicate how all modes of transportation will be accommodated with recommended changes on the study area roadways. The existing and proposed cross sections on the following pages show the typical right-of-way width, areas dedicated for vehicles, pedestrians, and bicyclists, and other roadway characteristics.

Anticipated costs noted are planning-level construction costs and generally do not include design, drainage and erosion control, utility work, work zone traffic control, mobilization, right-of-way easements or acquisitions, and contingency costs.

Alternative cross sections considered along with cost assumptions and calculations are included in **Appendix G**.

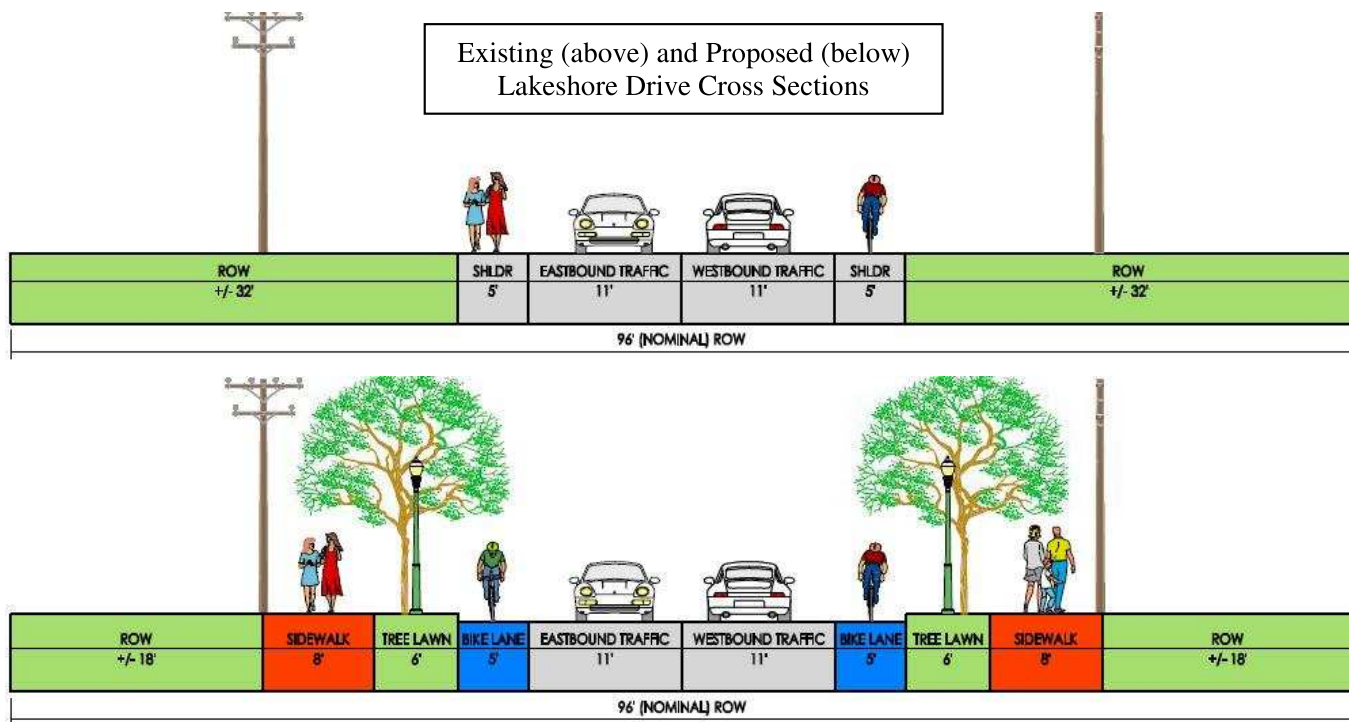
- **Route 364 Recommendations Summary**
 - Between Routes 5/20 and Lakeshore Drive, bicycle traffic will be accommodated in the existing shoulders with bicycle warning signage. Pedestrians will be accommodated in new 8 foot wide concrete sidewalks on both sides of the roadway with pedestrian-level lighting.
 - Bicycle traffic will be accommodated in a 12 foot wide asphalt, shared-use path on the east side of the roadway with permanent pedestrian-level lighting. Depending on the final layout of the path, right-of-way easements/acquisitions may be required.
 - An 8 foot wide concrete sidewalk will be installed on the west side of the roadway with pedestrian-level lighting that will be directed away from residential properties, pre-timed for certain hours, and/or controlled to be utilized during special events.
 - Anticipated cost: \$720,000 includes sidewalk, shared-use path, lighting, and signage.

Figure 4-2: Route 364 Cross Sections (see Figure 4-1 for section location)



- Lakeshore Drive Recommendations Summary**
 - Reconstruct the pavement area to accommodate 2 - 11 foot travel lanes and 2 – 5 foot bicycle paths with the appropriate signage and pavement striping.
 - Install curbing, tree lawn area with ornamental trees, and pedestrian-level lighting on both sides of the roadway.
 - Install 8 foot concrete sidewalks on both sides of the roadway.
 - Anticipated cost: \$1.8 million includes reconstruction and widening, sidewalks, striping and signage, lighting, trees, and enhanced crosswalks.

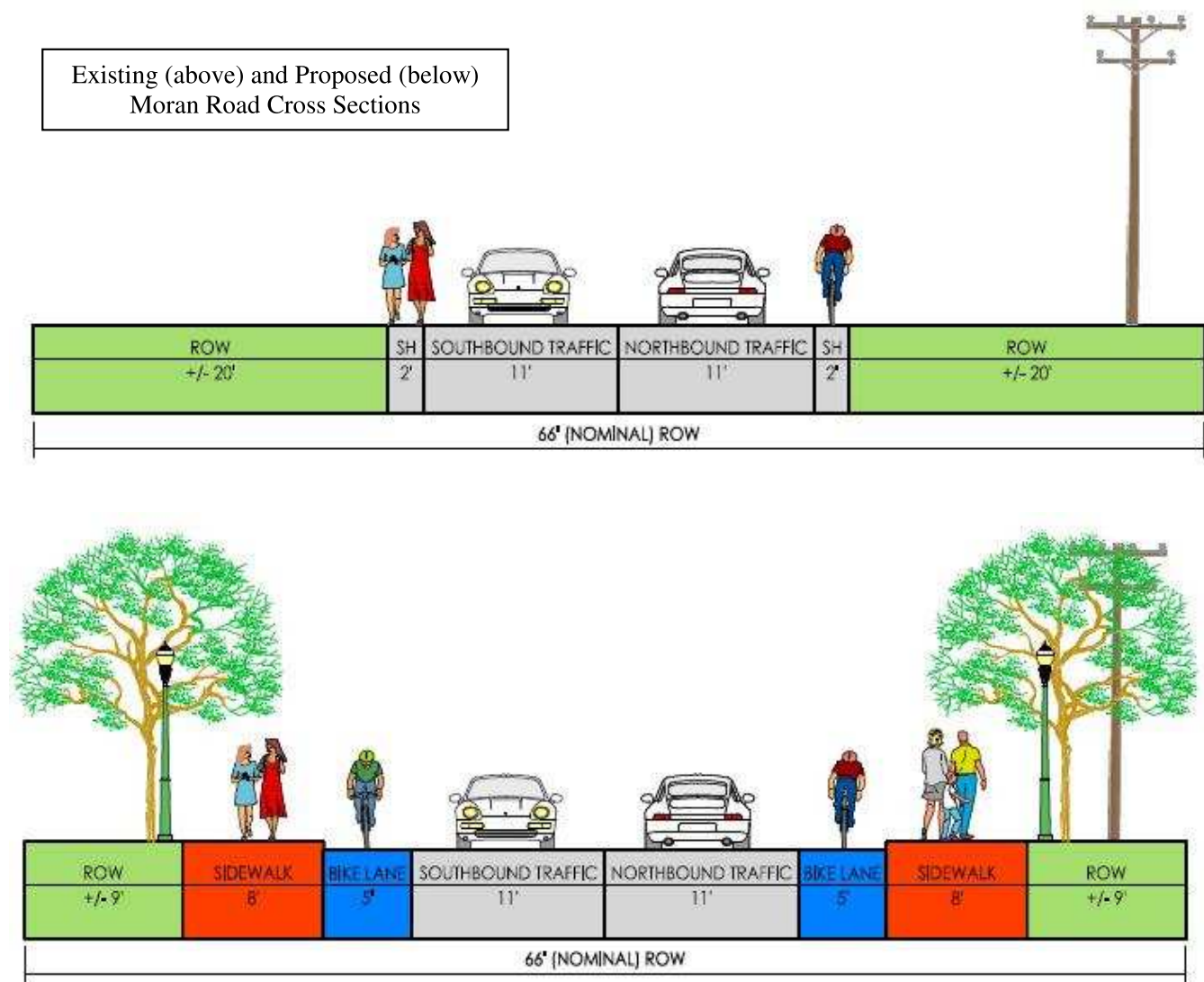
Figure 4-3: Lakeshore Drive Cross Sections (see Figure 4-1 for section location)



• **Moran Road Recommendations Summary**

- Reconstruct the pavement area to accommodate 2 - 11 foot travel lanes and 2 – 5 foot bicycle paths with the appropriate signage and pavement striping.
- Install curbing with adjacent 8 foot sidewalks on both sides of the roadway, consistent with CR 10 north of Routes 5/20.
- Tree lawn area with ornamental trees and pedestrian-level lighting on both sides of the roadway outside of the sidewalk. The width of the lawn area may vary or even need to be eliminated near Lakeshore Drive adjacent to certain commercial properties.
- Anticipated cost: \$510,000 includes reconstruction and widening, sidewalks, striping and signage, lighting, and trees.

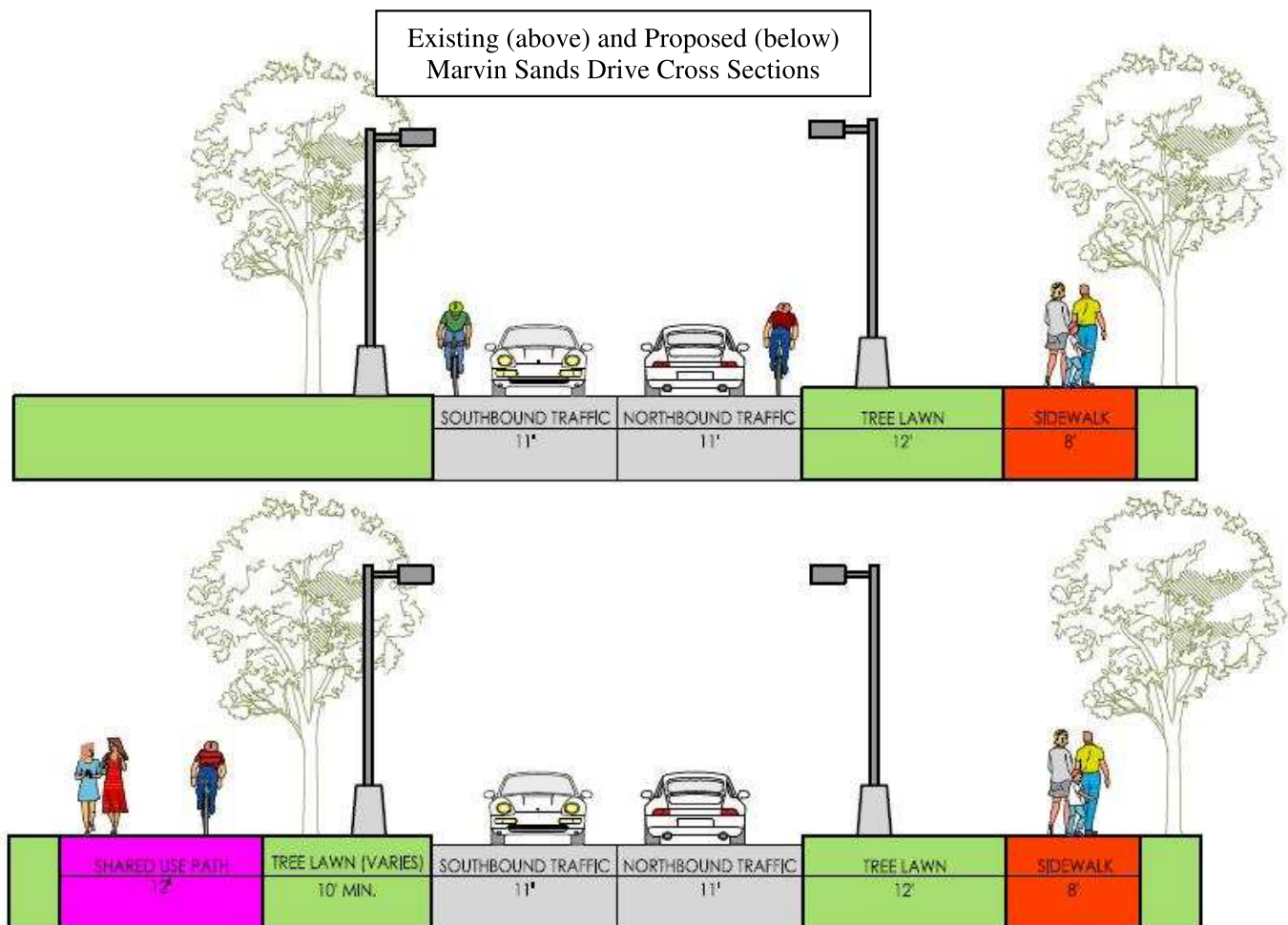
Figure 4-4: Moran Road Cross Sections (see Figure 4-1 for section location)



• **Marvin Sands Drive Recommendations Summary**

- Bicycle traffic will be accommodated in a 12 foot wide asphalt, shared-use path on the north side of the roadway along G lot and the west side across from CMAC and FLCC with additional permanent pedestrian-level lighting, as needed.
- An 8 foot wide concrete sidewalk will be installed around G lot along the east side of Route 364 and the south side of Marvin Sands Drive.
- Anticipated cost: \$675,000 includes sidewalk, shared-use path, lighting, signage, and enhanced crosswalks.

Figure 4-5: Marvin Sands Drive Cross Sections (see Figure 4-1 for section location)





4.7 Recommendations Summary

Table 4-3 summarizes the recommendations discussed in Section 4. They are separated by users or modes served but are also highlighted based on recommendation type: capital improvement project, service and/or program, or policy and/or planning recommendation.

Table 4-3: Recommendations Summary

<u>Location</u>	<u>Recommendation Description</u>
Intersection/Vehicle Safety Recommendations	
Provide additional intersection-level lighting	Additional lighting is needed along RTS 5/20 from CR 10 to Lakeshore Dr and at the intersections within the study area.
Conduct traffic control warrant analyses	Conduct traffic control warrant analyses at the intersections of Lakeshore Dr with Moran Rd and Marvin Sands Dr.
Realign/add traffic signal heads	Realign/add signal heads at the intersections of RTS 5/20 with RT 364 and CR 10.
Install landscaping to calm traffic & create a signature look to the study area	Provide landscaped buffer areas with ornamental trees to calm traffic & help create a gateway or signature look to the study area.
Pedestrian/Bicycle Safety Recommendations	
Close the gaps in sidewalk network	Provide sidewalks on both sides of the following roadways: RTS 5/20 from CR 10 and Lakeshore Dr, RT 364 between RTS 5/20 and Lakeshore Dr, Moran Rd, and Lakeshore Dr. Provide sidewalk on the west side of Route 364 between Lakeshore Dr and Marvin Sands Dr and along G lot. Provide pedestrian accommodations through shared-use path on the east side of RT 364 and north/west side of Marvin Sands at FLCC/CMAC. Recommend all sidewalk is 8' in width to accommodate snow removal equipment and heavy traffic during special events.
Install pedestrian level lighting	Pedestrian level lighting is needed along Lakeshore Dr, Moran Rd, Marvin Sands Dr, and on RT 364.
Install enhanced crosswalks	Install enhanced crosswalks through striping or integrated paving techniques at key crossing locations
Install bicycle lanes/shared-use path throughout study area	Install bicycle lanes on Lakeshore Dr and Moran Road. Install a shared-use path on the east side of RT 364 and north/west side of Marvin Sands at FLCC/CMAC.
Install bicycle infrastructure throughout the study area	Coordinate with residential/commercial property owners to provide additional bike racks throughout the study area.
	Provide additional bike racks at FLCC with shelters & options for more secure storage.
	Install bike racks on CATS buses.
Install permanent barrier along RTS 5/20 near campus housing and Honors House	To encourage crossing of RTS 5/20 at the intersection with Lakeshore Dr, install permanent barrier (fence) along south side of RTS 5/20 between CR 10 and Lakeshore Dr.



Table 4-3 cont: Recommendations Summary

<u>Location</u>	<u>Recommendation Description</u>
Special Event Recommendations	
Develop 2-3 special event traffic management plans	Due to the variety of times and types of events, multiple event plans should be created to accommodate different needs (regional vs local draw, tailgating vs last minute arrivals, etc).
Special event communications improvements	Improve communications (signage, social media, wireless communications, etc) between CMAC, law enforcement, parking staff & public regarding parking availability to improve traffic flow.
Update CMAC Directions & Parking webpage	Include access map showing alternative routes, parking map with fees, link to sign up for social media
Traffic flow improvements @ CR 18 parking access	Allow for dual left turns from RT 364 onto CR 18 that direct each lane into different access points into G Lot to improve traffic flow.
Vehicular/pedestrian safety - install permanent barriers along Marvin Sands at G Lot	To eliminate access for vehicles from G Lot to Marvin Sands during special events, install permanent barriers with gates at access points.
Pedestrian lighting during special events	Pedestrian-level lighting is recommended on RT 364 south of Lakeshore Dr for special events (accommodated with permanent lights that are pre-programmed and only one late at night during special events) & improve lighting in G lot.
Service & Program Recommendations	
Market & promote existing CATS services	Better inform the public on CATS existing services - routes, service times, stops, prices, etc. - through website, social media, printed information at FLCC or other commercial establishments, etc.
Provide additional CATS routes and service times	Offer more direct routes for shorter travel times with more service times. Additional routes requested were between FLCC campuses, CMAC events, between FLCC and Main St in downtown Canandaigua.
Market & promote active transportation and transportation demand management at FLCC	Educate & promote the benefits of active transportation to the public & FLCC employees/students.
	Establish transportation demand management programs & incentives to promote alternative modes of transportation for FLCC employees and students.
	Educate the public on the rules of the road and safety regulations when it comes to walking and biking.



Table 4-3 cont: Recommendations Summary

<u>Location</u>	<u>Recommendation Description</u>
Policy & Planning Recommendations	
Strengthen bicycle & pedestrian supportive code in Town of Canandaigua	Existing language in Town of Canandaigua code notes that installation of sidewalks and paths are as required by Planning Board discretion. Need language to address bicycle parking/infrastructure in site plan design criteria. Need to address the process & financial details that will apply if they seek to improve the existing sidewalk system.
Strengthen bicycle & pedestrian supportive code in Town of Hopewell	Existing Town of Hopewell code mentions some pedestrian accommodations but has little or no mention of accommodating bicyclists. In particular, need to require the provision of bicycle access, circulation, and parking in Site Plans for commercial and mixed-use districts. Provision of sidewalks in residential subdivisions needs to be strengthened to require the developer, not the Planning Board, to demonstrate when sidewalks are not appropriate.
Establish shared maintenance agreement	With 3 different municipalities in the study area, a shared maintenance agreement will clarify the roles and responsibilities of each in the study area and ensure there are no gaps in services.

Capital improvement projects
Service & program recommendations
Policy & planning recommendations



5. Funding Information

This section provides information on potential funding sources for the implementation of the recommendations noted in Section 4. It is not meant to be an all inclusive list, but provide a starting point for funding consideration and research.

Moving Ahead for Progress in the 21st Century Act (MAP-21), signed into law in July 2012, creates a stream-lined, performance based and multi-modal program that includes the following core highway programs¹³:

- National Highway Performance Program (NHPP)
- Surface Transportation Program (STP)
- Congestion Mitigation and Air Quality Improvement Program (CMAQ)
- Highway Safety Improvement Program (HSIP)
- Metropolitan Planning
- Transportation Alternatives (TA) – encompasses most activities previously funded under Transportation Enhancements, Recreational Trails, and Safe Routes to Schools

State and Federal Funding for transportation improvements are allocated through the region's Metropolitan Planning Organization (MPO), which is the Genesee Transportation Council. Projects approved for funding are listed in the GTC's Transportation Improvement Program (TIP.)

For the construction and maintenance of streets, roads, highways and bridges that are not part of the federal aid network, Ontario County and its municipalities are allocated funds from New York State through the following programs:

- Transportation Enhancement Program (TEP): Municipalities and not-for-profit groups are eligible for funding that fall under one or more of five federally established categories: provision of facilities for bicycles and pedestrians; scenic and historic highway programs; landscaping and other scenic beautification; preservation of abandoned railway corridors; and environmental mitigation to address water pollution due to highway runoff or reduce vehicle-caused wildlife mortality while maintaining habitat connectivity. Each project required a minimum matching share of 20% of the total project cost but innovative finance features are available to minimize cash outlay for applicants and sponsors.
- Consolidated Local Street and Highway Program (CHIPS): Provided to Ontario County, towns and villages for the construction and repair of roads, bridges and other facilities that are not part of the State highway system. CHIPS funding includes the

¹³ SOURCE: Moving Ahead for Progress in the 21st Century Act (MAP-21): A Summary of Highway Provisions, Federal Highway Administration, Office of Policy and Governmental Affairs, July 17, 2012



Transportation Improvement Fund (TIF) and the Local Assistance Fund (LAF), through which funds are allocated to counties and towns based on shares of motor vehicle registrations, centerline highway mileage, and lane-miles, excluding interstate and state highways. This source of funding is limited to capital projects with a service life of 10 years or longer.

- **Municipal Streets and Highway (Marchiselli) Program:** Provides local governments with State funding to match federal aid for highway and bridge capital projects. The program provides 75% of the required non-federal match, which is typically 20-25% of project costs.

Other potential funding sources are discussed briefly below:

- **New York State Legislature, Member Item Program**

The Member Item Program is available as a means for constituencies to receive financial assistance for projects in represented legislative districts. Applicants should contact their State Senator and Assembly person directly so that their request can be considered by each House's full legislative body during session. Inquiries and requests should be made to State Legislative District offices no later than January of each session. Strong and organized projects that will enhance legislative districts have a very good chance of receiving a member item. Projects with significant political backing have the best chance at receiving state funds.

Funding possibilities: Roadway and parking lot construction; landscaping details; maintenance costs

- **Section 402 – State and Community Highway Safety Grants**

Section 402, the State and Community Highway Safety Grant Program, is a federal program that provides funds for education, enforcement, and research programs designed to reduce traffic crashes, deaths, injuries, and property damage. Under Section 402, bike and pedestrian safety programs are eligible to receive funding which is administered through the Governor's Traffic Safety Committee.

Funding possibilities: Pedestrian safety program; community information and education programs

- **Bikes Belong Grant Program (<http://www.bikesbelong.org/>)**

The Bikes Belong Grant Program supports cycling facilities and projects that improve health, strengthen bike businesses, and enhance quality of life in communities across the country. The program is funded by the Bikes Belong Coalition which is a U.S. bicycle industry organization dedicated to putting more people on bicycles more often.

- Application submission date: February, May, August, November
- Award announcement date: 3 to 5 months after application submission
- Probability of receiving award: Strong and organized projects with collaboration between at least one city/county government office or department, one non-profit organization, and one local business represented



- Maximum funding amount: \$10,000

Funding possibilities: Bicycle advocacy, healthy lifestyle promotion, construction of biking facilities

- **Greater Rochester Health Foundation (GRHF) Grants**
(<http://www.thegrhf.org/Default.aspx?RD=6039&RN=2014>)

The mission of the GRHF grants is to support projects with maximum potential to positively impact the community's health in the areas of prevention and health care delivery. Award amounts can vary between \$50,000 and \$200,000 annually.

Funding possibilities: Pedestrian safety program; community information and education programs

- **Centers for Disease Control and Prevention, Communities Putting Prevention to Work**(<http://www.cdc.gov/CommunitiesPuttingPreventiontoWork/program/obesity.htm>)

The Centers for Disease Control and Prevention Communities Putting Prevention to Work program supports grantees across the country in their efforts to promote and institutionalize healthy behaviors related to obesity control and prevention, nutrition, physical activity, and tobacco control and prevention.

Funding possibilities: Bicycle and pedestrian infrastructure that promote active transportation and healthy lifestyles

- **Robert Wood Johnson Foundation Grants** (<http://www.rwjf.org/en/grants.html>)

The Robert Wood Johnson Foundation provides grants for projects in the U.S. that advance their mission to improve health and health care for all Americans. Projects eligible for funding will address one of their seven program areas: childhood obesity, coverage, human capital, pioneer, public health, quality/equality, and vulnerable populations.

Funding possibilities: Bicycle and pedestrian infrastructure that promote active transportation and healthy lifestyles

- **NYS Environmental Facilities Corporation, Green Innovation Grant Program**

Projects must include at least one of the practices listed below in order to be considered eligible for GIGP funding. All projects must meet or exceed the standards set forth in the 2010 New York State Stormwater Management Design Manual.

Funding possibilities (if designed into the roadway reconstruction recommendations:

- ***Permeable pavement, e.g. porous asphalt, concrete, or pavers***
- ***Bioretention, e.g. rain gardens or bioswales***
- ***Street trees or urban forestry programs designed to manage stormwater***
- ***Downspout disconnection, i.e. redirecting stormwater from sewers to vegetated areas***



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Appendix A:

CMAC Event Observation Notes

CMAC Special Event Observations

Event	Day/Date/ Start Time	Attendance	Other events/activities	Traffic – enforcement/vehicle queues	Parking – VOR/location-occupancy
Tim McGraw	Friday/6-29-12/ 7:30 pm	9,400	Some PM commuter; lake traffic; beginning of holiday week – vacation travel	<p>Enforcement:</p> <ul style="list-style-type: none"> 14 - Ontario County Sheriff's Office Law Enforcement Division (6 for traffic posts, 4 bike patrol, 2 for parking lot patrol/arrests, 1 MOCOM Operator and 1 Sergeant) 3 - Ontario County 911Center, MOCOM 2 - Jail ERT Team 6 – NYSP (5 Troopers/1 Sergeant) – traffic control on Rt 364 @ Lakeshore/Rt 5 <p>Traffic Operations:</p> <ul style="list-style-type: none"> RT 5/20 & Rt 364 – EB queues – 30-50 vehicles; WB minimal although WBL often blocked by stopped traffic on Rt 364 – NYSP observing but not controlling traffic RT 364/Lakeshore – SB traffic queued between Lakeshore and Rt 5/20; WB and EB – avg peak queues of 15 cars RT 364/Muar – EB shoulder used for right turns which creates some conflicts; EBT queue in right lane regularly backs up past left turn bay but clears in one cycle RT 364/CR 18 – all traffic to general lots enter here –volume on RT 364/Lakeshore other than CMAC traffic is light – demand for left turns exceed turn bay but 2 County sheriff's are stationed here starting 2 hours before show and keep RT 364 SB travel moving by almost continuously allowing SBL stopping occasionally to allow NBT traffic to proceed; – SB traffic eventually backs up through Lakeshore due to volume entering lots CR 10/RT 5&20/Moran Rd – not a lot of activity – no wayfinding this way but some traffic does come up Moran knowing there is unofficial parking – limited observations Moran Rd/Lakeshore – very little vehicle traffic - limited observations Rt 5&20/Lakeshore – limited observations <p>Pedestrian/Bicycle:</p> <ul style="list-style-type: none"> Pedestrians/Bicycles on RT 5&20 – is limited pedestrian activity – saw a few pedestrians – 4-6 walking on path on north side of RT 5&20 approaching Rt 364 intersection Some pedestrian activity on RT 364 in shoulders – approaching Lakeshore or continuing north to access Marvin Sands Significant amount of pedestrian activity on Lakeshore <ul style="list-style-type: none"> 670 from west/470 from east @ Marvin Sands 6:40-7:40pm Both shoulders accessing from RT 5&20/Moran/parcels along Lakeshore One crosswalk at Marvin Sands – not really used – majority of pedestrian jaywalking to get shortest link to Marvin Sands Potential for sidewalk on south side of Lakeshore; potential for pedestrian access through Arboretum (?) 	<ul style="list-style-type: none"> VOR –close to split the number with 2-3 occupants and 4+ - average probably in 3+ range although assume this varies by concert Variable Message Sign (VMS) on RT 5&20 indicating free parking at Roseland Water Park – observed only a few people walking from that area Did not observe parking at retail plazas (Michaels/Walmart) north of RT 5&20 although did see a few people walking across RT 5&20 Observed a lot of unofficial CMAC parking at Loews – directly in front of Loews but towards internal access road – pedestrians used sidewalks to walk to RT 5&20 Parkland Plaza - Sandwich board on RT5&20 approaching Muar St indicating CMAC shuttle parking – another sandwich board near shuttle stop between VOA and Key Bank – concert goers can park anywhere in lot except by McDonalds where there was a sandwich board indicating parking for McDonalds patrons only TJ Maxx – remote lot – <ul style="list-style-type: none"> sandwich board and cones indicated CMAC parking opposite TJ Maxx near RT 5&20 – sandwich board knocked over almost no cars in this area some traffic in west corner of lot with occupants walking to Rt 364 along shoulder majority of parking in front of Joann's /out parcel – access to Moran along shoulder to Lakeshore Unofficial parking <ul style="list-style-type: none"> Reliant Credit Union on Moran - \$8 all parcels on Lakeshore with exception of Veterinary Hospital on NW corner of Moran - \$9-15; NE corner with Moran – can park up to 60 cars FLCC Honor House lot has parked up to 200 vehicles – parking proceeds for student scholarships – contact: Curtiss Nehring Bliss, Director of Honors Studies 585-394-3500, ext 7367 \$20 at SE corner of Marvin Sands – parking here and at motel on Moran were primarily associated with overnight rental of rooms <p>Occupancy</p> <ul style="list-style-type: none"> TJ Maxx plaza parking – a little less than ½ full Parkway - ~75 cars General and VIP lots at occupancy @~7:20pm

Event	Day/Date/ Start Time	Attendance	Other events/activities	Traffic – enforcement/vehicle queues	Parking – VOR/location-occupancy
Mumford & Sons	Tuesday, 8-8-12/ 7:00 pm	13,248	PM commuter	<p>Enforcement:</p> <ul style="list-style-type: none"> • 12 OCSO deputies, 1 OCSO supervisor • 2 OC Corrections • 3 OC Communications • 6 NYSP, 1 NYSP supervisor – traffic control Rt 364 @ Rt 5/20; CR 10 <p>Traffic Operations:</p> <ul style="list-style-type: none"> • Traffic exceptionally heavy; SB 332 delays caused some CMAC bound traffic to divert to CR 10 increasing WB 5/20 volume to Rt 364 • Queues on 5/20 backed up EB from 332 and WB from CR 10 • RT 364 delays resulted in cars making u-turns to return to private/alternate parking areas • WB Lakeshore to Rt 364 – 20+ vehicles @ 7pm • NYSP manual traffic control 5/20 & Rt 364 • OCSO had Rt 364/Lakeshore in flash mode ?-8:20 <p>Pedestrian/Bicycle:</p> <ul style="list-style-type: none"> • Significant pedestrian volumes <ul style="list-style-type: none"> ○ Crossing 5/20 @ 364 ○ In shoulders of Rt 364 – steady pedestrian flow filling shoulders and crossing mid-block between stopped cars; access to CMAC opposite Golf Beach Shores; @ 8:05-8:10pm – 180+ pedestrians in shoulder ○ Rt 364 – some bicycles observed in travel lanes to avoid pedestrians in shoulder 	<p>Occupancy:</p> <ul style="list-style-type: none"> • TJ Maxx – lot over capacity with some illegally parked cars • Big Lots - +/-60 cars • Alumni Lot – full • Lowes/Bank - ~170 cars • Parkway - ~200 cars (difficult to est. with some restaurants still open) • P.O. - ~40 cars • Wegmans - ~90 cars



Appendix B:

Steering Committee Notes

Memo

To: Attendees

From: Kim Fabend, Sr. Planner/Engineer

Date: June 15, 2012

Re: Routes 5/20 & 364 Multi-Modal Safety & Access Improvements Study
Kickoff Meeting Summary

File: 371.009.001

The kickoff meeting for the Routes 5/20 & 364 Multi-Modal Safety & Access Improvements Study was held at 11:00 am on June 12, 2012 at the Ontario County Department of Public Works (OC DPW) conference room at 2962 County Road 48 in Canandaigua. A list of attendees is provided at the end of this summary.

The purpose of the meeting was to introduce the project and solicit feedback from the project's steering committee. A copy of the presentation is enclosed. The meeting agenda included:

- Welcome and Introductions
- Project Overview
 - Project Approach & Description
 - Public Participation/Steering Committee Role
 - Existing & Planned Conditions
 - Data Collection Plan
- Next Steps

The following is a brief summary of the discussions that took place at the meeting.

DISCUSSION TOPICS:

Project Protocol/Communications – All information/questions can be directed to project manager, Kim Fabend from C&S (kfabend@cscos.com), while copying Tim McElligott from OC DPW (Timothy.McElligott@co.ontario.ny.us) on any correspondence.

It was also noted that the Doodle Poll worked well in scheduling the kick-off meeting with the steering committee members. This is how meetings will be scheduled throughout the project.

Stakeholders – C&S noted that up to 5 interviews will be conducted with different groups of stakeholders to obtain information and feedback regarding the project. The following groups were noted as potential stakeholders during discussions:

- Finger Lakes Community College (FLCC) representatives
- Constellation Brands/Marvin Sands Performing Arts Center (CMAC) representatives
- Businesses/merchant group/development corporation representatives
 - Canandaigua Area Development Corporation
- Resident/home owners association representatives
- Law enforcement/emergency service providers
 - Ontario county Traffic Safety Board
- Transit/transportation service providers
 - CATS
 - Private companies
 - Veterans services
- User groups/bike coalition representatives were identified as potential stakeholders; however attendees were not aware of any local organizations. C&S will contact the Rochester Cycling Alliance to ask if they are aware of any local organizations.

Since the meeting, contact information for Rosepark Cottages and Rosepark Townhouses was provided. OC DPW will compile stakeholder contacts and work with C&S to schedule interviews.

Data needs - C&S provided a list of past studies, documents and reports and technical information that will be needed to complete the existing and planned conditions inventory. The following was noted and discussed outside the list of information provided during the presentation:

- FLCC – provide Greenhouse Gas Emissions Inventory as part of the President’s Challenge, Master Plan, parking capacity and occupancy information, construction activity information (project end dates, any projects occurring through project timeframe?)
- New York State Department of Transportation (NYSDOT) – provide accident information on state routes, signal timing/phasing data and previous studies (traffic impact studies – Crystal Beach?)
- Town of Hopewell – provide zoning code, traffic counts on Lakeshore Dr. (summer counts)
- CMAC – provide parking capacity and occupancy information, information regarding shuttle provider
- OC DPW – provide accident information on local roads, GIS mapping,

Data collection plan – The inventory is going to be focused on observations during 4 different peak periods:

- Typical AM commuter peak (when FLCC is in session - September)
- Typical PM commuter peak (when FLCC is in session - September)

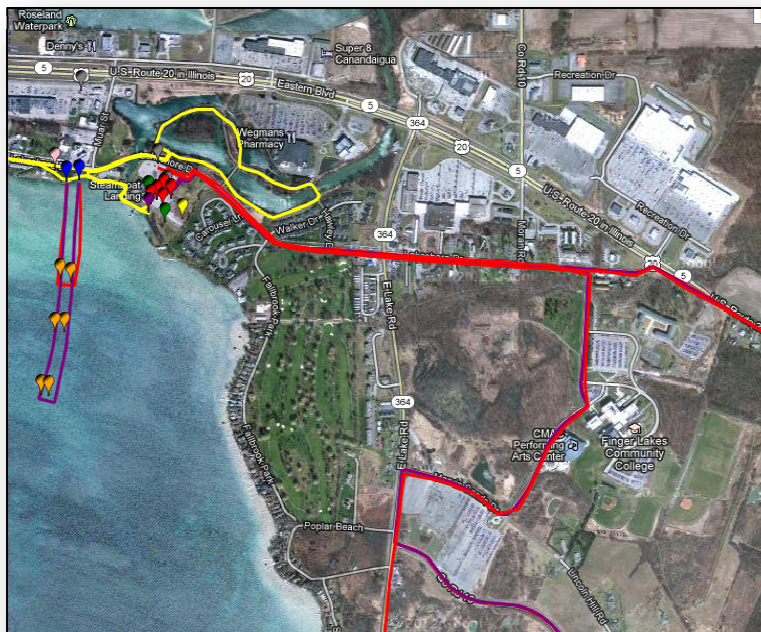
- Special event at CMAC that overlaps with commuter peak and weekend traffic (Friday, June 29th, Tim McGraw concert @ 8pm) – observations would occur starting at 4:30
- Special event (anticipating being sold out) at CMAC that overlaps with weekend traffic (Sunday, July 15th, time unknown)

Other notes associated with the special event observations and CMAC are noted below:

- Doors open 90 minutes prior to concert start time, some tailgating occurs depending on what show, day and time
- It was noted that CMAC can accommodate approximately 7,500 attendees with their parking and assumed vehicle occupancy ratio. Both observation events are expected to be over that number or sold out so they will be a good representation of peak conditions.
- Observers will have access to parking areas, shuttles and the venue for ease of data collection
- Those attendees that park in TJ Maxx parking lot have to walk, those that park at Parkway Plaza get shuttle, some people will park at other lots – Raymour & Flanigan, Lowes, Walmart
- CMAC VIP lot is based on lease agreement with FLCC
- CMAC promotes and communicates heavily through social media (Facebook, Twitter) regarding operations at special events (bottleneck points, recommended routes/parking areas, etc)

Key issues & needs – C&S facilitated a discussion on key issues and needs to consider while moving forward with data collection/inventory effort and stakeholder interviews:

- Effects of lake traffic on study area
- Other than CMAC, Roseland Water Park, race track, etc. there are a number of festivals/events in the City of Canandaigua that affect the study area due to proximity – *Since the meeting, the City's special event calendar and event submittals were provided to C&S. The special event observation dates were cross-checked with the City's events. There were no known events on June 29th but the Art & Music festival is happening the weekend of the July 15th event.*
- FLCC provides a venue for a number of different community activities – sports fields, daycare, etc.
- Finger Lakes Triathlon is scheduled for September 8-9, 2012 that will run throughout study area (see map below)



Routes 5/20 & 364 Multi-Modal Safety & Access Improvements Study
Kickoff Meeting Summary

Enclosed for your review and comments are:

- Copy of presentation
- Steering committee list/contact information
- List of existing studies/documents/plans & data

Please provide edits or additions to this meeting summary or comments on the enclosures to:

Kim Fabend, P.E., PTOE
Senior Transportation Engineer/Planner
C&S Companies
499 Col Eileen Collins Boulevard
Syracuse, NY 13212
kfabend@cscos.com

and copy

Timothy G. McElligott, P.E.
Professional Engineer
Ontario County Department of Public Works
2962 County Road 48
Canandaigua, NY 14424
timothy.mcelligott@co.ontario.ny.us

List of Steering Committee Members – Contact Information

First Name	Last Name	Title	Organization	Address	City,State,Zip	Phone	Email
Timothy	McElligott	Professional Engineer	Ontario County DPW	2962 County Road 48	Canandaigua, NY 14424	(585) 393-2999	timothy.mcelligott@co.ontario.ny.us
Julie	Gotham	Senior Planner	Ontario County Planning	20 Ontario Street	Canandaigua, NY 14424	(585) 396-4457	julie.gotham@co.ontario.ny.us
Dan	Hallowell	Regional Planning and Dev.	NYSDOT - Region 4	1530 Jefferson Rd.	Rochester, NY 14623	(585) 272-3318	daniel.hallowell@dot.ny.gov
James	Fletcher	Highway, Parks and Water Superintendent	Town of Canandaigua	5440 Rts 5&20 West	Canandaigua, NY 14424	(585) 394-3300	fletcher@townofcanandaigua.org
James	Sprague	Director of Public Works	City of Canandaigua	205 Saltonstall Street	Canandaigua, NY 14424	(585) 396-5060	james.sprague@canandaiguanewyork.org
Vern	Hecker	Highway Superintendent	Town of Hopewell	2716 County Road 47	Canandaigua, NY 14424	(585) 394-2653	vhecker@townofhopewell.org
Jason	Maitlann	Director of Campus Safety	FLCC	3325 Marvin Sands Drive	Canandaigua, NY 14424	(585) 785-1437	maitlajr@flcc.edu
Ginny	Clark	Vice President	Friends of CMAC - Constellation Brands	207 High Point Office Park, Building 100	Victor, NY 14564	(585) 678-7157	ginny.clark@cbrands.com
Joe	Bovenzi	Assistant Program Manager	Genesee Transportation Council	50 West Main St.	Rochester, NY 14614	(585)232-6240	jbovenzi@gtcmppo.org
John	Polimeni		NYSDOT - Region 4	1530 Jefferson Rd.	Rochester, NY 14623	(585) 272-3318	john.polimeni@dot.ny.gov

List of Existing Plans, Documents & Studies

We currently have the following:

- Town of Canandaigua Comprehensive Plan 2011 Update
- Ontario Co Comprehensive Emergency Management Plan
- Town of Hopewell 2006 Comprehensive Plan
- Ontario Co Fixed Route Evaluation
- NYS Routes 5/20 Corridor Study - Lima to Canandaigua
- Seneca Co Routes 5/20 & 414 Corridors Management Plan
- Canandaigua Regional Transportation Study
- CATS– Linking People to the Workplace
- City of Canandaigua Zoning Code

List of Existing Technical Data

We currently have the following:

- Traffic Count Data - AADT: NYS RTS 5/20 & 364
- Traffic Count Data - AADT, Speed, Class: CR 10, Moran Rd, Lakeshore Dr & Marvin Sands Dr


We need the following:

- Town of Hopewell Zoning Code
- FLCC - GHG Emissions Baseline, any other relevant documents
- Traffic impact studies conducted in the area
- Any other studies/documents?
- Accident data
- Parking capacity/occupancy data
- Signal data
- Private transportation service operator information




Routes 5/20 & Route 364 Multi-Modal Safety &
Access Improvement Study
Kick-off Meeting

June 12, 2012



Agenda

- Introductions
- Project Approach & Description
- Public Participation
- Existing & Planned Conditions
- Data Collection Plan
- Next Steps





Project Team



Kimberly Fabend, P.E., PTOE
C&S Engineers, Inc.

- Transportation Planning
- Traffic Engineering
- Meeting presentations
- Final product preparations

Project Manager



Aileen Maguire Meyer, P.E., AICP
C&S Engineers, Inc.

- Overall project guidance
- Quality Assurance/
Quality Control
- Meeting presentations/
Facilitation

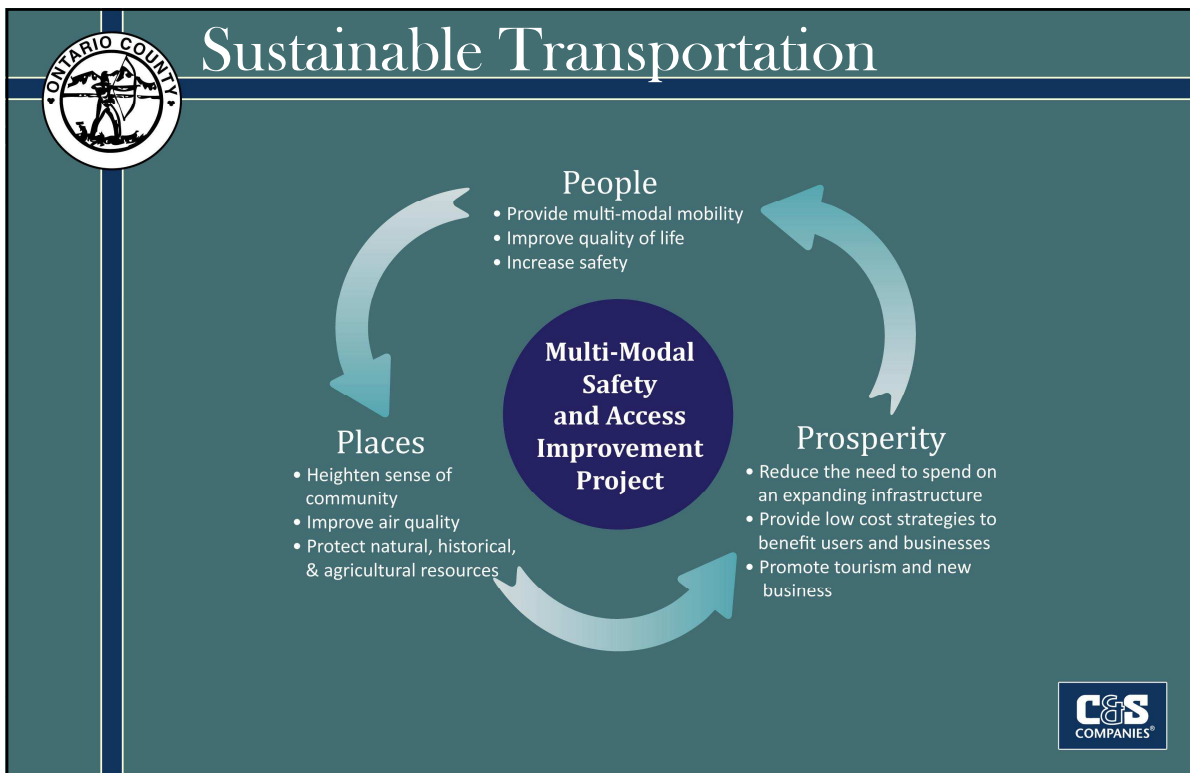
Principal-in-Charge/QA/QC

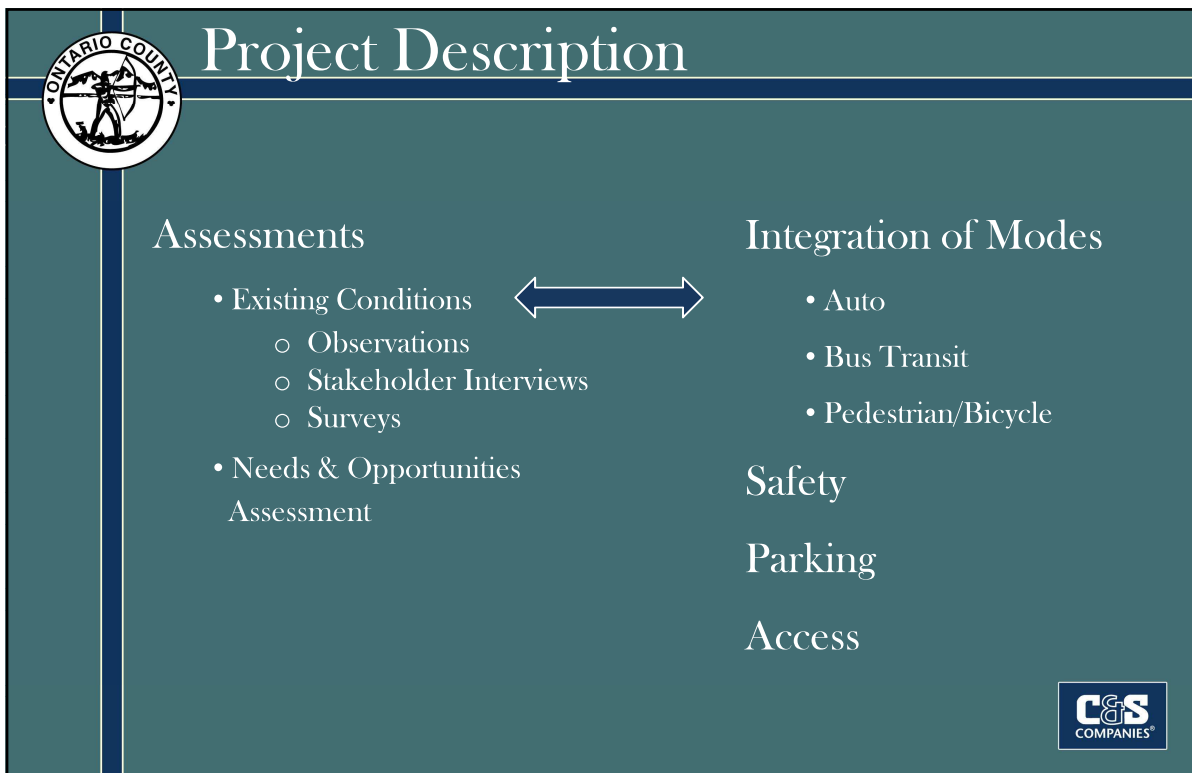
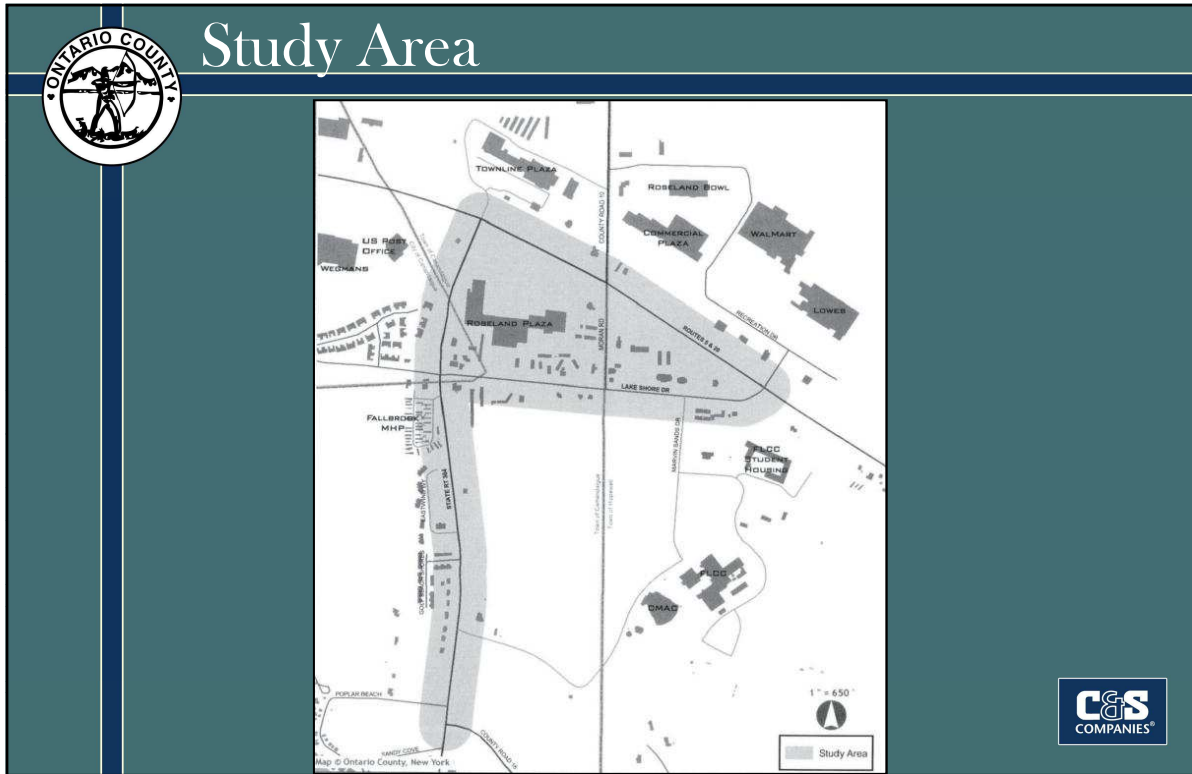


Mike Gridley, R.L.A., LEED AP
C&S Engineers, Inc.

- Concept Plans
- Streetscaping Improvements

Landscape Architect





Project Description

- Recommendations & Follow-On Activities
 - Alternatives Development & Analysis
 - Capital Improvements
 - Services & Program Recommendations
 - Planning & Policy Changes
 - Preferred Alternative with Sketch Concepts
 - Funding Opportunities
- Final Report



Public Participation

- Steering Committee Role
 - 4 meetings throughout process
 - Provide local insight, guidance and direction
 - Review project materials
- Stakeholder Interviews
- Public Outreach
 - Public Workshop
 - Final Presentation
 - Education & Promotion





Existing & Planned Conditions

Existing Studies & Documents

- Land Use & Zoning Plans
- Corridor Studies
- Transit/Mobility Studies
- Comprehensive Plans
- Parking/Access Management Plans
- Special Event Management Plans

We currently have the following:

- Town of Canandaigua Comprehensive Plan 2011 Update
- Ontario Co Comprehensive Emergency Management Plan
- Town of Hopewell 2006 Comprehensive Plan
- Ontario Co Fixed Route Evaluation
- NYS Routes 5/20 Corridor Study - Lima to Canandaigua
- Seneca Co Routes 5/20 & 414 Corridors Management Plan
- Canandaigua Regional Transportation Study
- CATS– Linking People to the Workplace



Existing & Planned Conditions

Data Needs

- GIS Mapping
- Traffic Counts
- Accident Data
 - NYSDOT
 - Local law enforcement
 - County
 - Specific problem areas?
- Parking Capacity & Occupancy
 - FLCC
 - CMAC

We currently have the following:

- Traffic Data
 - AADT: NYS RTS 5/20 & 364
 - AADT, Speed, Class: CR 10 (Moran Rd, Lakeshore Dr & Marvin Sands Dr pending)





Existing & Planned Conditions

• Data Collection/Inventory

- Block-by-block
- All facilities – multi-modal
- Spot checks of parking data at FLCC & CMAC
- Parking capacity & occupancy at retail/housing establishments
- General observations/spot counts
 - AM & PM commuter peaks
 - Mid-day Saturday
 - CMAC event



Event 2012 Schedule

June 2012

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13 An Evening with Yanni 8 pm	14	15	16 *
17	18	19	20	21	22	23 */**
24	25	26 * Sarah McLachlan 7:30 pm	27	28	29 Tim McGraw 8 pm	30 * Patriotic Pops 7:30 pm

July 2012

S	M	T	W	T	F	S
1 Demi Lovato 7 pm	2	3	4	5	6 Furthur 8 pm	7 * Last Summer on Earth 8 pm
8	9	10	11	12	13	14 * The Summer Dance Party 8 pm
15	16	17	18	19 Jim Gaffigan 8 pm	20	21 * Meatloaf 8 pm
22	23	24	25	26	27	28 Music of Queen 7:30 pm
29	30	31				

August 2012

S	M	T	W	T	F	S
			1	2 Snoop Dogg 7 pm	3	4 *
5	6	7	8	9	10	11 * The Dukes of Sept 8 pm
12	13	14	15 Journey 7 pm	16	17	18 * Eric Church 7:30 pm
19	20	21	22	23	24 Train 7 pm	25 *
26	27	28	29 Kelly Clarkson 7 pm	30	31	

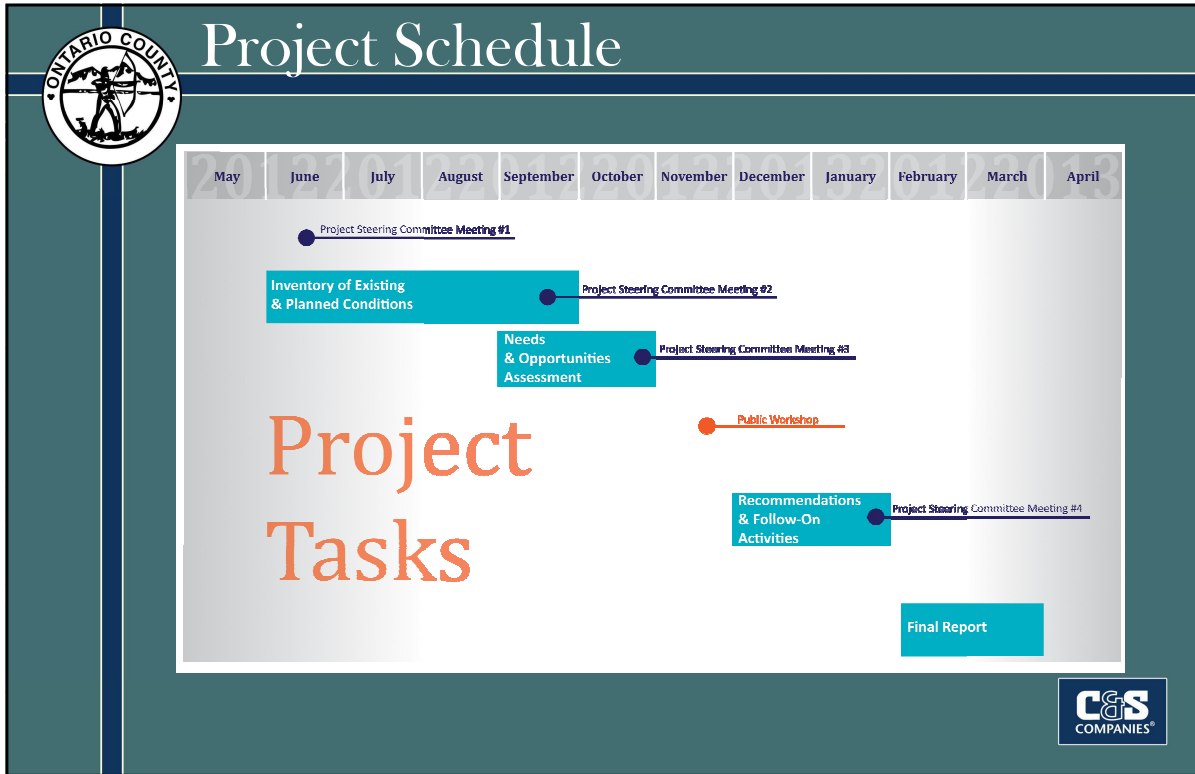
CMAC Event

Ontario County Fair

* Motor Park Race Event 7 pm

** Roseland Water Park
Opens 6/23
11:00 am – 7/7:30 pm





Memo

To: Attendees

From: Kim Fabend, Sr. Planner/Engineer

Date: January 3, 2013

Re: Routes 5/20 & 364 Multi-Modal Safety & Access Improvements Study
Existing Conditions Meeting Summary

File: 371.009.001

A steering committee meeting for the Routes 5/20 & 364 Multi-Modal Safety & Access Improvements Study was held at 10:00 am on December 17th, 2012 at the Ontario County Department of Public Works (OC DPW) conference room at 2962 County Road 48 in Canandaigua. A list of attendees is provided at the end of this summary.

The purpose of the meeting was to present the findings from the inventory and review of previous plans and studies. A copy of the presentation is enclosed. The meeting agenda included:

- Welcome and Introductions
- Existing Conditions Overview
- Stakeholder Meetings & FLCC Survey Summary
- Preliminary Needs Assessment
- Next Steps

The following is a brief summary of the discussions that took place at the meeting:

- Hopewell anticipates zoning approval shortly; C&S requested a copy of draft zoning code to incorporate into this study
- CR10 has sidewalks on both sides of RTS 5/20 up to Recreation – need to be shown on graphic
- Accident analysis
 - RTS 5/20 & CR 10 – what time of day were the accidents? Was lighting an issue? – specifics on accident times and conditions will be reviewed and documented
 - RT 364 & Lakeshore –
 - Were accidents associated with concert events? C&S asked if dates are available for past CMAC events – will coordinate with Ginny Clark
 - Multiple access/egress associated with gas station and Schooners restaurant; vehicles exit gas station right into intersection to “beat the light”
 - Bus stop blocks traffic

- It was noted that bicycle traffic would be heavier during summer months than observed in the fall
- Parking
 - It was noted that Fairgrounds was used for Tim McGraw concert as well as those noted in observations
 - Canandaigua requires a special use permit for private parking areas; need to reapply annually
 - CMAC uses social media (Facebook, Twitter, etc) to guide parking but it was noted that cell service is down regularly
 - Need more signage and promote Manchester Thruway Exit 43 (RT 21) as alternative to parking access
- Development on Lakeshore in City (west of study area) – \$130M mixed-use development will have impacts on study area if it moves forward
 - City has not seen any official submittals other than demolition permits
 - Need to consider its potential and how it fits within the study area
 - City noted that this area is already designed to accommodate multiple modes/calm traffic
- Lakeshore
 - Attendees were surprised that survey respondents thought there was a need for a light on Lakeshore at Marvin Sands versus Moran. It is perceived that drivers are more aggressive at Moran
 - Plenty of ROW on Lakeshore to widen/accommodate bike lanes and remove pedestrians from road; issue is funding and maintenance
 - Suggest traffic calming or reduce volume/limit vehicles on section of Lakeshore between RT 364 and Marvin Sands – force drivers to access Lakeshore via RTS 5/20 near Lowes
- CMAC special event traffic plan
 - Too many variables/differences in shows to have only one traffic plan
 - Suggest VIP traffic enter/exit at RTS 5/20 & Lakeshore at Lowes
 - CMAC has agreed to implement 2 turn lanes from RT 364 onto CR 18 to expedite traffic into general lot
- Need to ensure that recommendations are consistent with GTC's LRTP
- Public meeting considerations
 - Use CMAC social media contacts to publicize
 - Hold meeting on FLCC campus after spring semester begins to encourage student attendance due to low survey response
 - Suggest piggy-back on student events at FLCC and/or use student gov't to advertise

Enclosed for your review and comments are:

- Copy of presentation
- Meeting handouts
 - Maps
 - Stakeholder summary
 - Matrix of recommendations of previous studies
 - CMAC special event observations matrix

Please provide edits or additions to this meeting summary or comments on the enclosures to:

Kim Fabend, P.E., PTOE
Senior Transportation Engineer/Planner
C&S Companies
499 Col Eileen Collins Boulevard
Syracuse, NY 13212
kfabend@cscos.com

and copy

Timothy G. McElligott, P.E.
Professional Engineer
Ontario County Department of Public Works
2962 County Road 48
Canandaigua, NY 14424
timothy.mcelligott@co.ontario.ny.us

List of Attendees

Tim McElligott, OCDPW
Joe Bovenzi, GTC
Vern Hecker, Town of Hopewell
James Sprague, City of Canandaigua
John Polimeni, NYSDOT
Jim Fletcher, Town of Canandaigua
Ginny Clark, CMAC/Constellation Brands
Julie Gotham, Ontario County Planning
Aileen Maguire Meyer, C&S
Kim Fabend, C&S



Routes 5/20 & Route 364 Multi-Modal Safety &
Access Improvement Study
Existing Conditions Meeting

December 17, 2012





Agenda

- Welcome and Introductions
- Existing Conditions Overview
- Stakeholder Meetings & FLCC Survey Summary
- Preliminary Needs Assessment
- Next Steps





Project Purpose

Develop feasible transportation planning & design concepts that will improve safety & accessibility for pedestrians, bicyclists, & motorists, consistent with general community goals & expectations.





Project Process



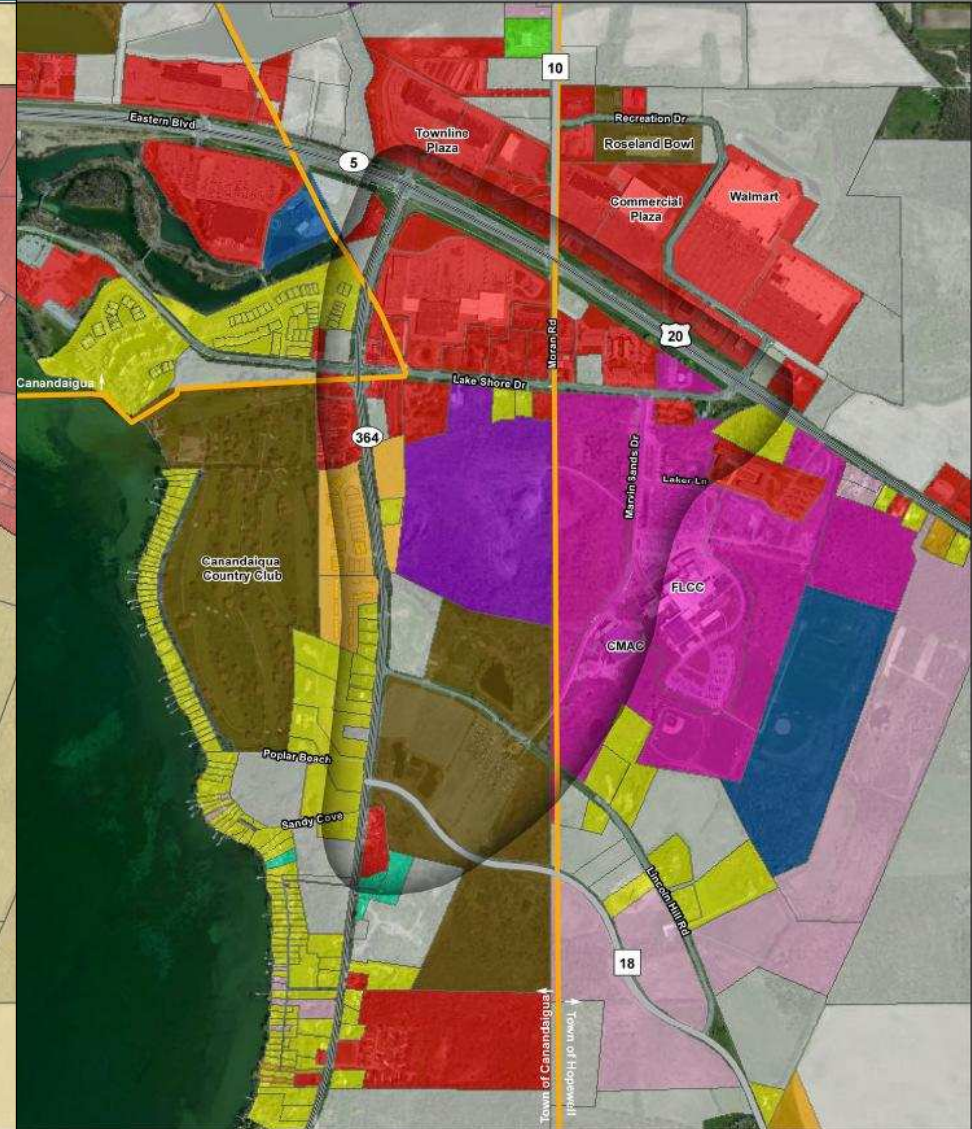
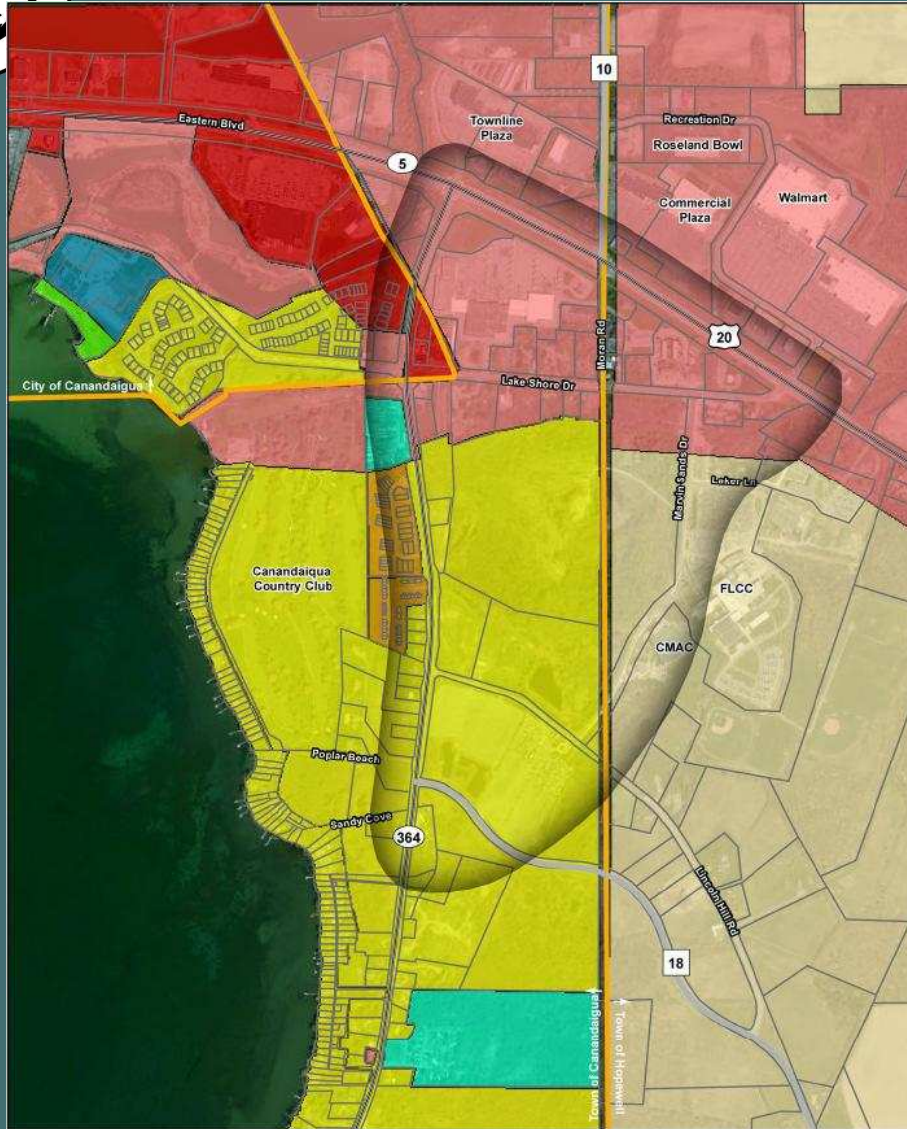


Study Area



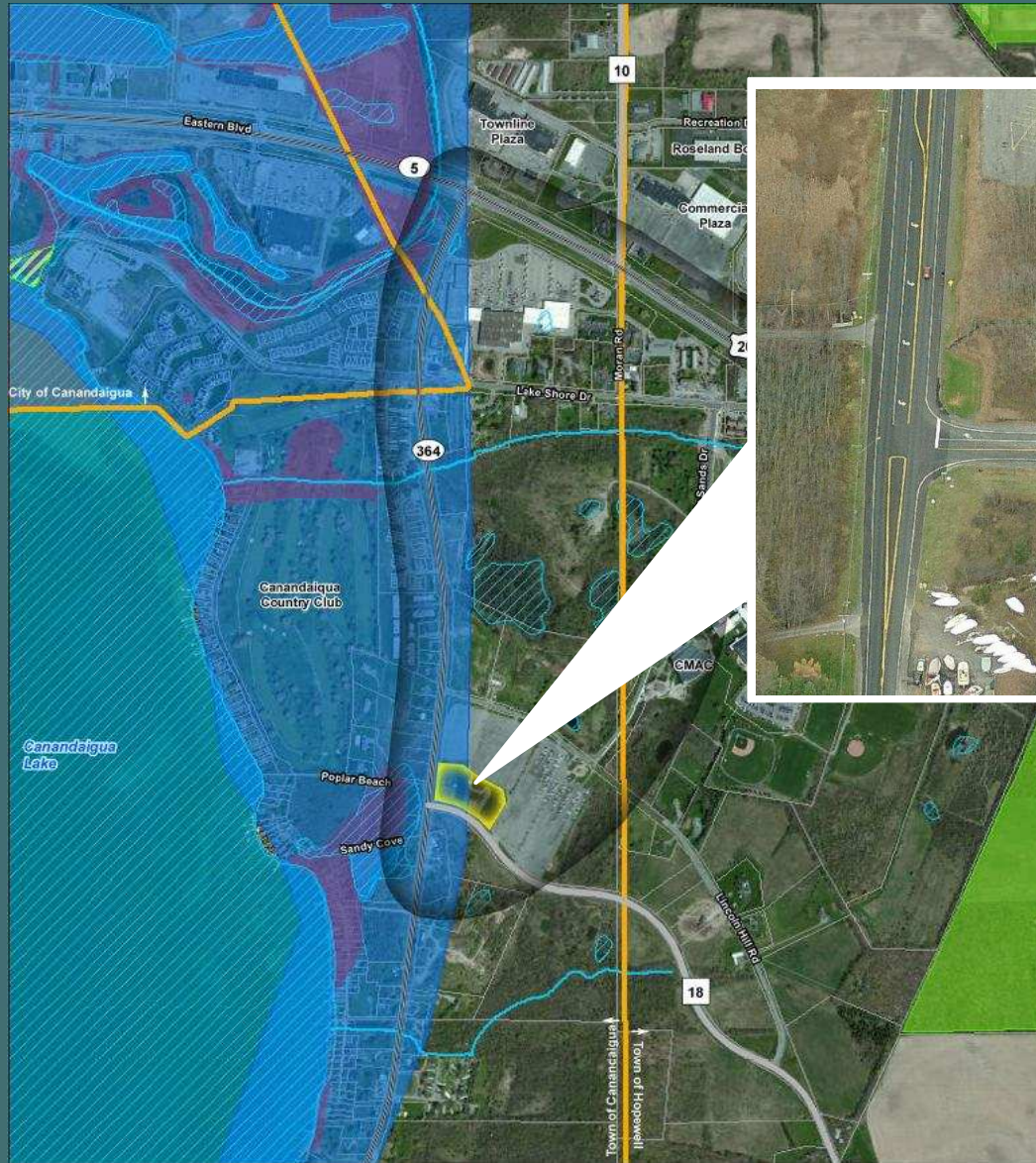


Inventory – Zoning/Land Use





Inventory – Environmental Overview





Inventory – Roadway Geometries



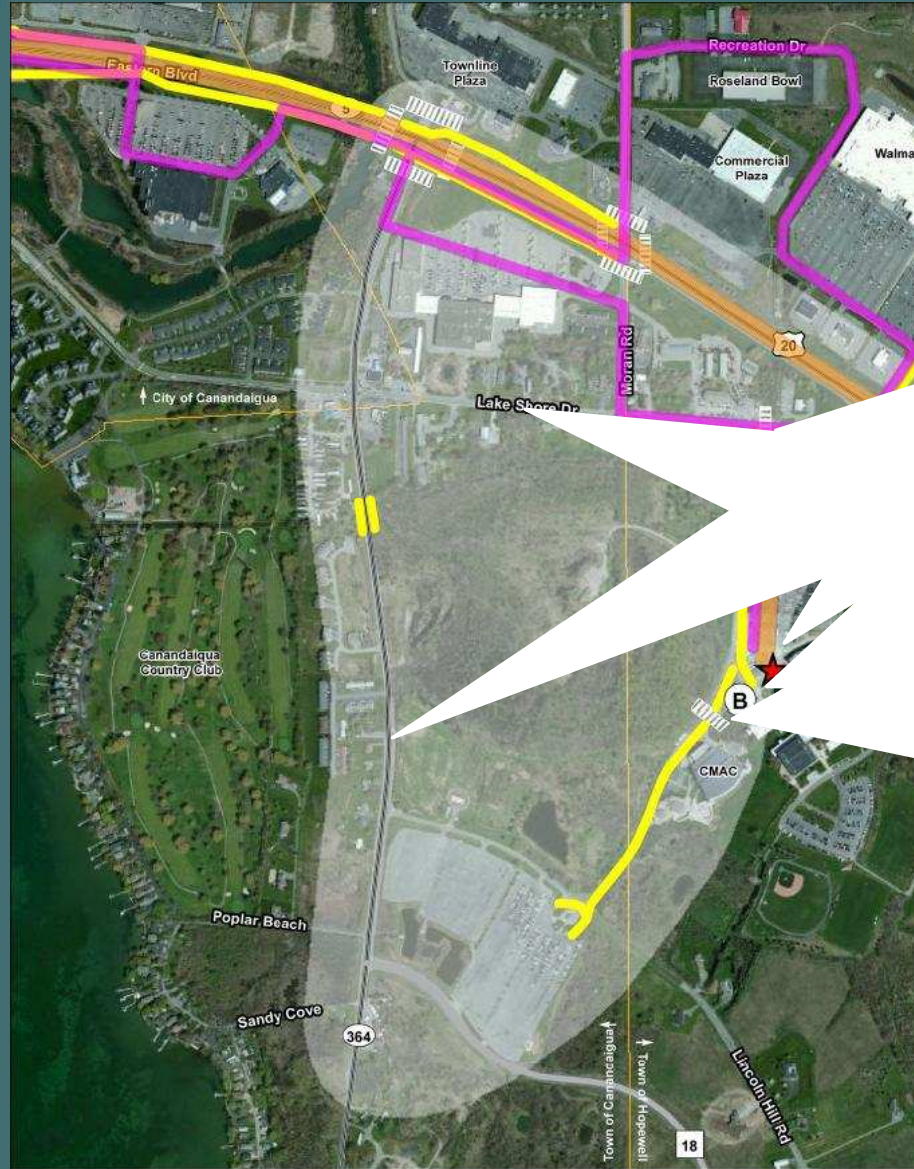
	AADT	Year	Growth Rate from 2002
Routes 5/20 (West of Route 364)	23,400	2009	-0.09%
Routes 5/20 (Route 364 to Lake Shore Dr/Lowe's)	13,100	2008	1.43%
Route 364 (City Line to Routes 5/20)	6,100	2011	4.22%
CR 10 (btwn Routes 5/20 & CR 46)	9,900	2010	-0.11%

Traffic Data (Local Roads) May 2012	AADT	% Heavy Vehicles	85th % Speed
Marvin Sands (South of Lake Shore)	3,500	6	35
Marvin Sands (East of Route 364)	620	4	31
Lake Shore Dr (btwn Routes 5/20 & Marvin Sands)	3,600	12	39
Lake Shore Dr (btwn Marvin Sands & Moran Rd)	5,100	7	37
Lake Shore Dr (btwn Route 364 & Moran Rd)	5,800	9	41
Moran Rd (btwn Lake Shore Dr & Routes 5/20)	2,800	6	36





Inventory – Transit/Bike/Pedestrians





Inventory – Accident Analysis

- Reviewed data from a 3-year period (1/09 – 12/11)
- NYSDOT & detailed accident reports
- Data broken down based on:
 - Location (intersection vs roadway segment)
 - Property damage only vs injury vs non-reportable
- Accident rate calculation & comparison to statewide average rates for similar locations





Inventory – Accident Analysis

	January 2009 - December 2011							
	Total # Accidents	PDO	Injury	Fatality	Non- Reportable	Total Acc Rate	SWA Rate	% > SWA
Intersections								
RTS 5/20 & RT 364	17	4	6		7	0.48	0.12	300%
RTS 5/20 & CR 10	43	15	15		13	1.19	0.12	892%
RTS 5/20 & Lake Shore Dr	15	9	5		1	0.77	0.12	542%
RT 364 & Lake Shore Dr	20	10	7		3	1.31	0.12	992%
RT 364 & Marvin Sands Dr	4	4				0.55	0.10	450%
RT 364 & CR 18	8	5	1		2	0.66	0.10	560%
Lake Shore Dr & Moran Rd	7	3			4	0.35	0.10	250%
Lake Shore Dr & Marvin Sands Dr	2	1	1			0.21	0.10	110%
Totals	116	51	35	0	30			

- 2 Pedestrian accidents:
 - RT 364 & Lake Shore Dr
 - Lake Shore Dr & Moran Rd





Inventory – Accident Analysis

	January 2009 - December 2011							
	Total # Accidents	PDO	Injury	Fatality	Non- Reportable	Total Acc Rate	SWA Rate	% > SWA
Segments								
RTS 5/20 (btwn RT 364 & CR 10)	4	3			1	1.05	1.33	-21%
RTS 5/20 (btwn CR 10 & Lake Shore Dr)	5	2			3	0.47	1.33	-65%
RT 364 (btwn RTS 5/20 & Lake Shore Dr)	2				2	0	2.88	
RT 364 (btwn Lake Shore Dr & Marvin Sands Dr)	15	7	5		3	4.52	2.88	83%
RT 364 (btwn Marvin Sands Dr & CR 18)	1	1				0.75	2.88	-70%
Lake Shore Dr (btwn RT 364 & Moran Rd)	6	4	1		1	2.62	2.47	6%
Lake Shore Dr (btwn Moran Rd & Marvin Sands)	0					0	2.47	
Lake Shore Dr (btwn Marvin Sands & RTS 5/20)	1	1				2.56	2.47	4%
CR 10 (north of RTS 5/20)	2	1			1	0.46	2.47	-81%
Moran Rd (btwn Lake Shore Dr & RTS 5/20)	3	3				4.94	2.47	100%
Totals	39	22	6	0	11			

- 1 Pedestrian accident on RT 364 between Lake Shore Dr & Marvin Sands – vehicle turning into driveway



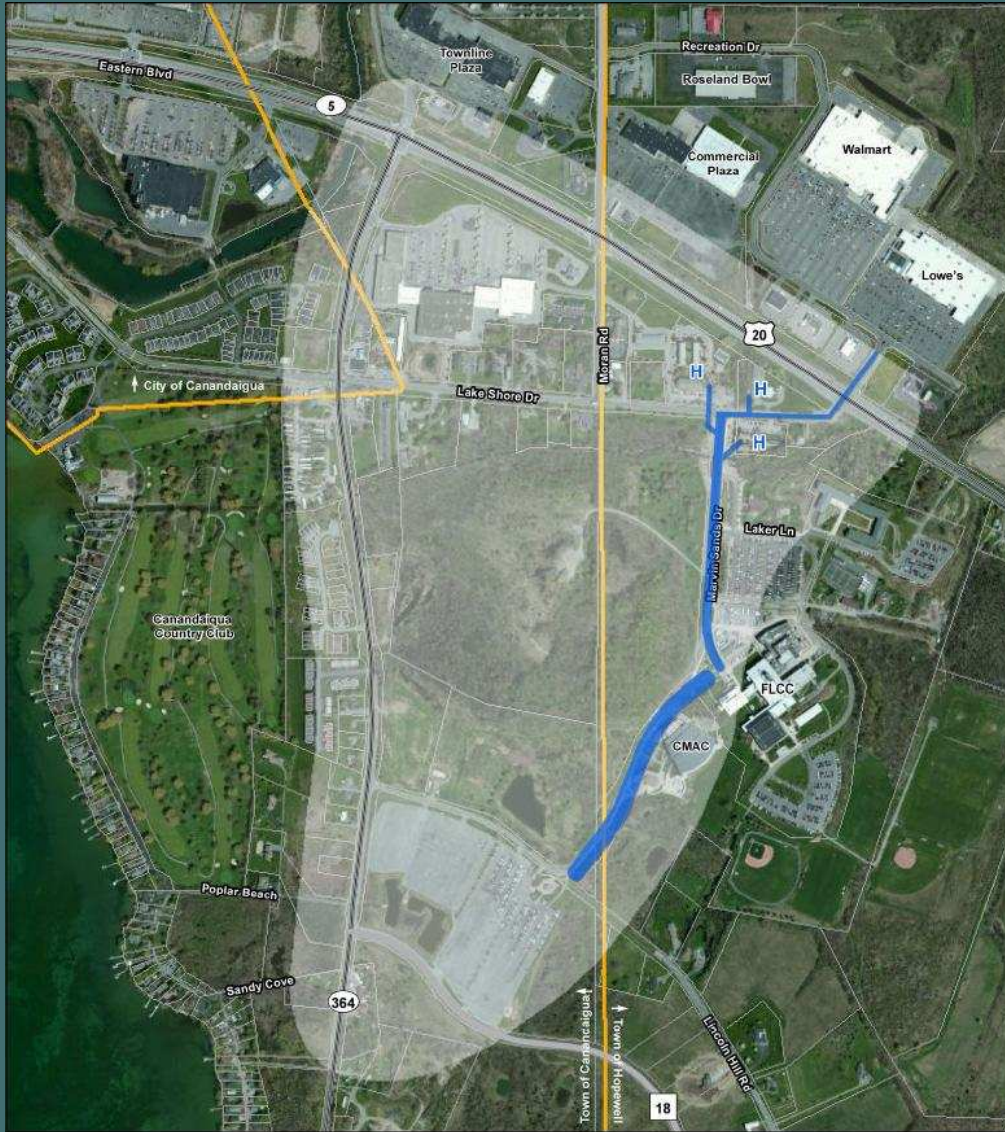


Observations

- Typical weekday observations – Sept 19, 2012
- Special events @ CMAC
 - Tim McGraw – Friday, June 29, 2012 @ 7:30pm
 - Mumford & Sons – Tuesday, August 7, 2012 @ 7:00 pm



Observations – Typical Weekday



Wednesday, Sept 19

- 8-10:30 am
- A lot full around 8:30am
- No traffic congestion
- 1 biker observed but 4 bikes in rack





Observations – Tim McGraw





Observations – Mumford & Sons

Tuesday, August 7 - Show at 7:00pm





Stakeholder Interviews

- 4 meetings held on August 28th
- 30 potential stakeholders invited – 14 attended
- Topics discussed:
 - CMAC events
 - FLCC
 - Bike/Ped concerns
 - Access
 - Safety
 - Transit





FLCC Surveys

- Employee & Student surveys - online
- Open from October 22 – November 9
- Email notification & article in campus publications
- Response rates:
 - Employees: 64 responses (approx 20%)
 - Students: 5 responses



FLCC Surveys

- 32% of respondents live in Canandaigua
- 29% arrive between 8 – 8:30am
(47% arrive between 8 – 9 am)
- 31% leave between 4 – 4:30pm
(53% leave before 4:30pm)
- Mode Share
 - 93% drove alone (56 respondents)
 - 1 respondent biked to work everyday
 - 3-4 people carpooled to work
 - No one used public transit or walked





FLCC Surveys

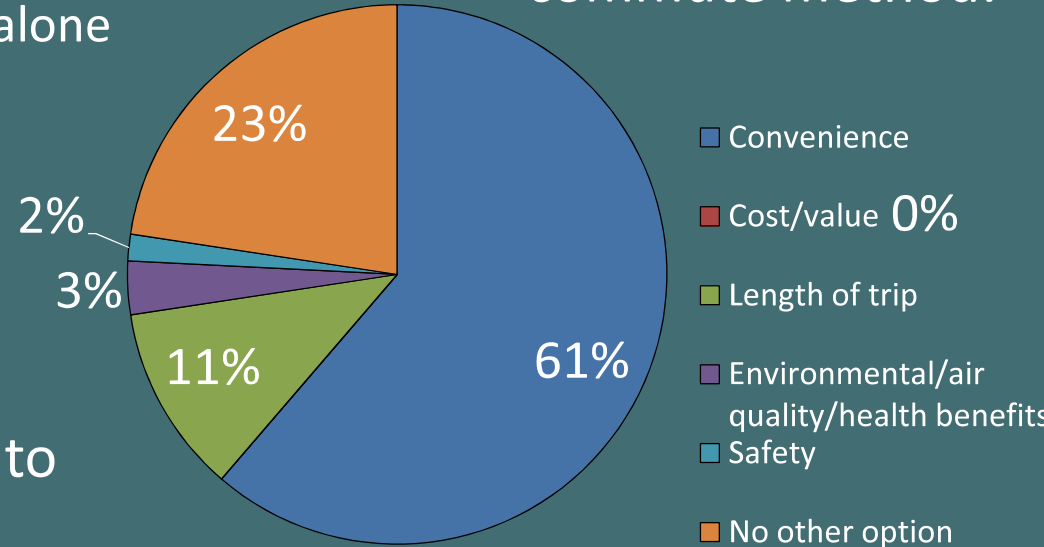
Top 3 reasons for driving alone:

1. Need car for errands before/after work
2. Hours are irregular
3. Enjoy my privacy/prefer to drive alone

Top 3 incentives/services needed to change commute method:

1. Improved transit routes/schedules
2. Guaranteed ride home
3. Flexible hours to accommodate transit schedules

Why they chose their commute method:





FLCC Surveys

Summary of Detailed Responses

Safety Concerns:

- Students walking in roadways – RT 364, Lake Shore Dr, Moran Rd
- Students not using crosswalks
- No bike lanes/markings
- Morning glare affects view of pedestrians
- Lack of pedestrian lighting
- Crosswalk on Lake Shore Dr @ Marvin Sands Dr
 - Conflicts with vehicles turning to and from campus – congestion and obstructed view
- CATS drivers are unsafe
- On campus
 - Not enough Blue Emergency lights/more security
 - Too many conflict points near main entrance
 - D lot is isolated - unsafe





FLCC Surveys

Summary of Detailed Responses

Overall Transportation System Perceptions:

- Congestion on Main St in Canandaigua
- Need traffic signal @ Lake Shore Dr & Marvin Sands Dr – poor visibility and conflicts with pedestrians
- Need sidewalks – Lake Shore Dr especially & RTS 5/20 to get to retail & service establishments
- Need better pedestrian lighting
- Need bike lanes & signage
- Need improved/more reliable transit schedules and routes
- Need more or easily available information on transit
- Need connection to Main St in Canandaigua – too far to walk
- Need transportation between other campuses (Victor, Geneva & Newark)



Review of Documents/Studies

Report/Document Title	Agency/Entity	Author	Date
Town of Canandaigua Comprehensive Plan 2011 Update	Town of Canandaigua	edr Companies	2011
Town of Canandaigua zoning code	Town of Canandaigua		
Canandaigua Regional Transportation Study	GTC - Ontario Co (lead)	Clark Patterson Associates	May-06
Town of Hopewell 2004 Visioning Plan	Town of Hopewell		2004
Town of Hopewell Comprehensive Plan	Town of Hopewell	CPA	2006
Town of Hopewell zoning code	Town of Hopewell		
Ontario County Comprehensive Emergency Management Plan	Ontario County	Ontario County/NYS Emergency Management Office	Dec-03
Ontario County Fixed Route Evaluation - Final	Ontario County	Nelson Nygaard	Feb-10
Routes 5&20 Corridor Management Plan	Ontario County	peter j smith & co, inc.	
NYS Routes 5/20 Corridor Study - Lima to Canandaigua	GTC - Ontario Co (lead)	FRA Planning	Feb-04
Trails Master Plan	Town of Canandaigua	Parks & Rec - Town of Can	2010
FLCC 2011 Annual Security Report	FLCC	Office of Campus Safety	2011
FLCC Facilities Master Plan	FLCC	FLCC	2007
FLCC GHG Report	FLCC	OBG	2010
CMAC traffic management plan	CMAC		2008
Active Transportation Plan - Canandaigua	Canandaigua Walkers & Cyclists	Bill Taylor	2009





Summary of Needs

Vehicular traffic needs:

- Signal head realignment at intersections of RTS 5/20 with CR 10 and RT 364
- Better lighting at intersections
- Signal at Lake Shore Dr & Marvin Sands Dr

Bicycle/Pedestrian needs:

- Sidewalks along RTS 5/20, Lake Shore Dr, Moran Rd, RT 364, & west side of Marvin Sands Dr
- Bike lanes or marking & signage
- More bike/ped infrastructure (racks, lanes, shelters, etc)
- Pedestrian-level lighting
- More direct designated pathways with crosswalks to CMAC/FLCC
- Make parking lots more bike/ped friendly





Summary of Needs

Transit needs:

- More direct, reliable transit routes to reduce travel time
- Make information on available services/routes easier to find and understand
- Perceived as unsafe – drivers, germs, etc
- Need bike racks on buses
- Need service between different FLCC campuses
- Need connection between Main St and FLCC
- Provide more direct services to CMAC events

FLCC Campus needs:

- Have limited access to D lot – perceived as unsafe for pedestrians
- Not enough Blue Emergency lights/more security
- Too many conflict points near main entrance
- Need more bike/ped infrastructure (racks, lanes, shelters, etc)





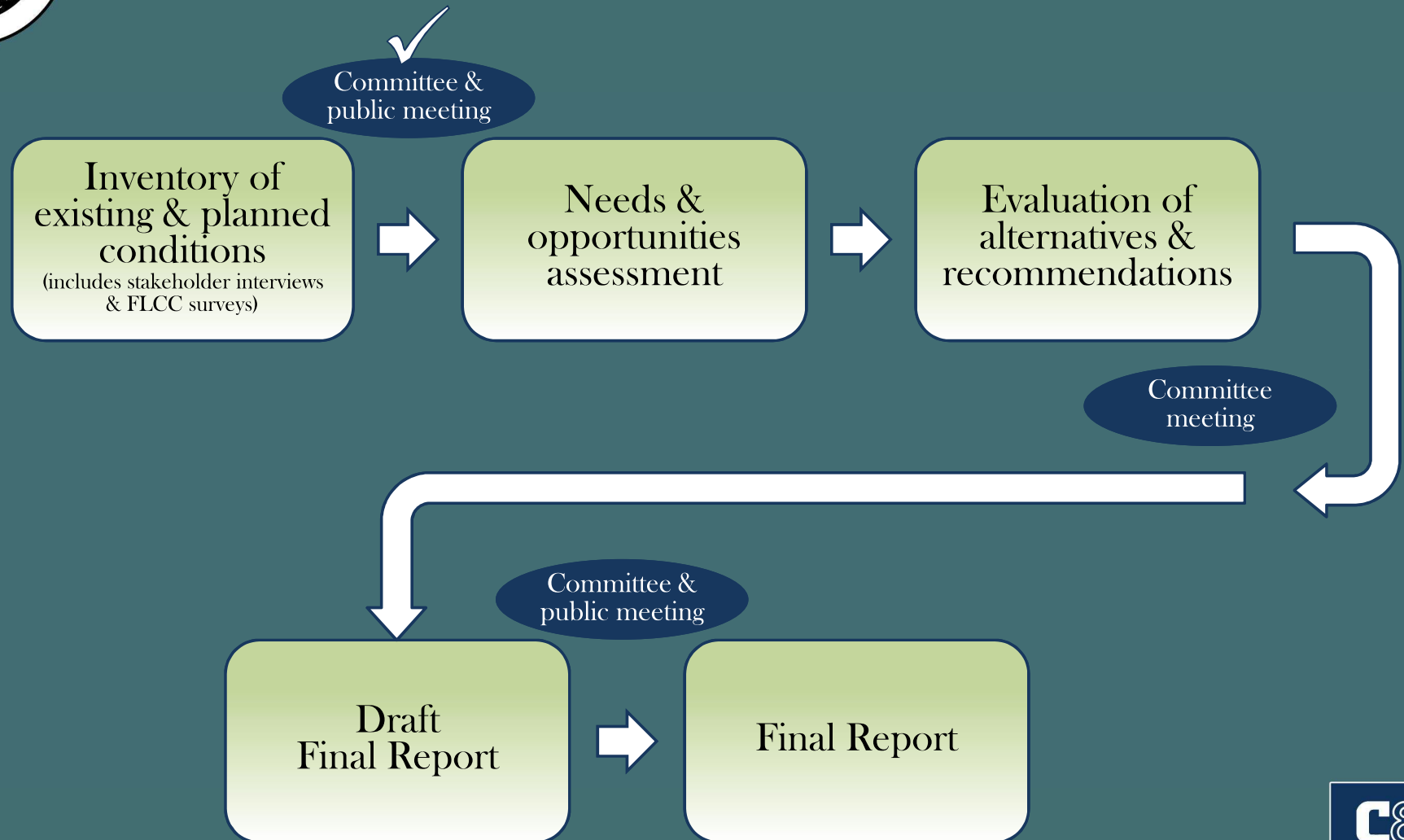
Summary of Needs

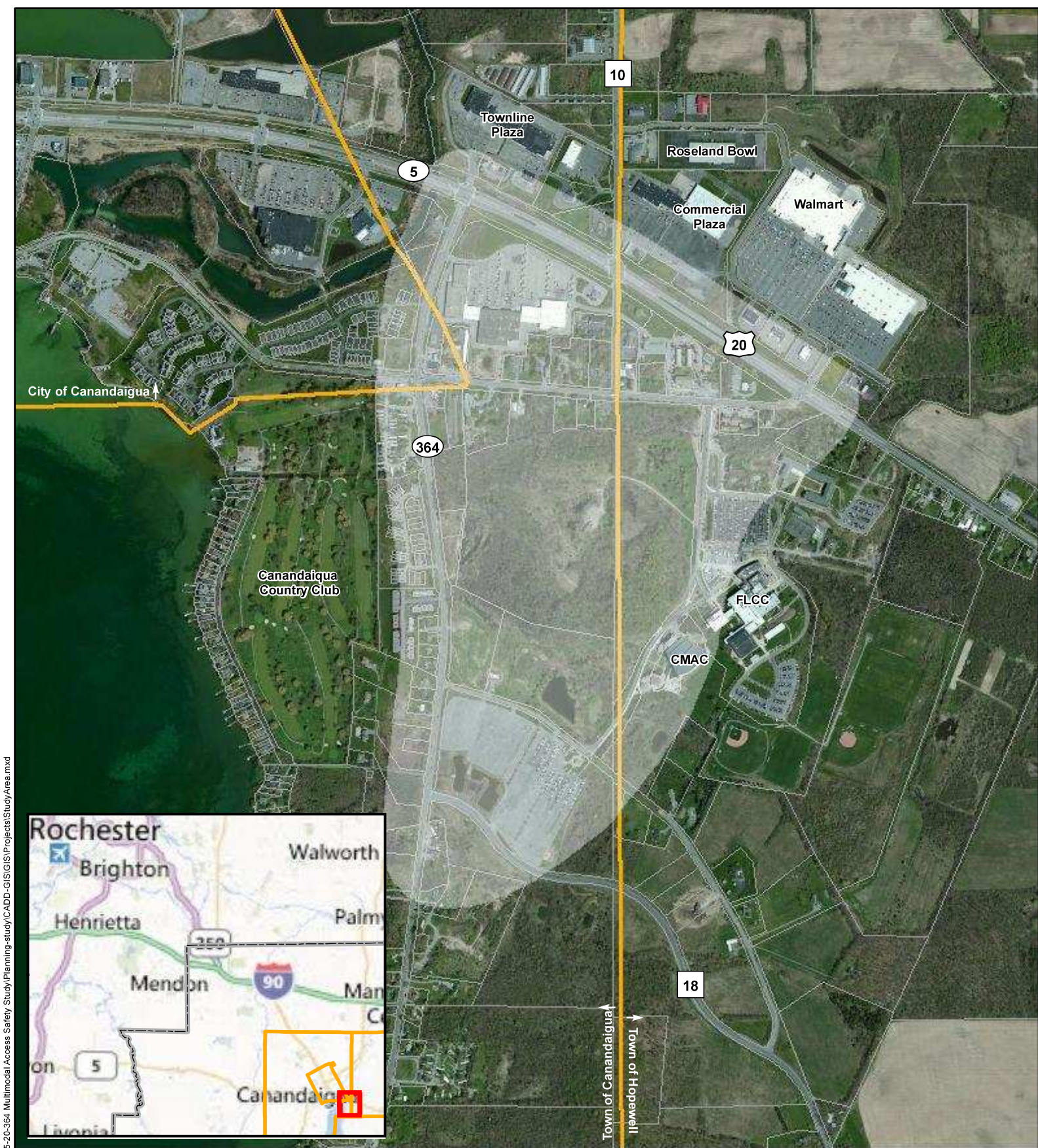
CMAC special event needs:

- Updated traffic management plans
- Consider both auto and pedestrian traffic control
- Improve traffic flow & access to G-lot
- Improve pedestrian environment & discourage use of private property as pathways
- Improve communications associated with parking options/availability to improve traffic flow
 - Wayfinding
 - Notification of appropriate parking area



Project Process – Next Steps





Legend

- Study Area
- Parcels
- City/Town Boundary
- County Road
- State Highway
- US Highway

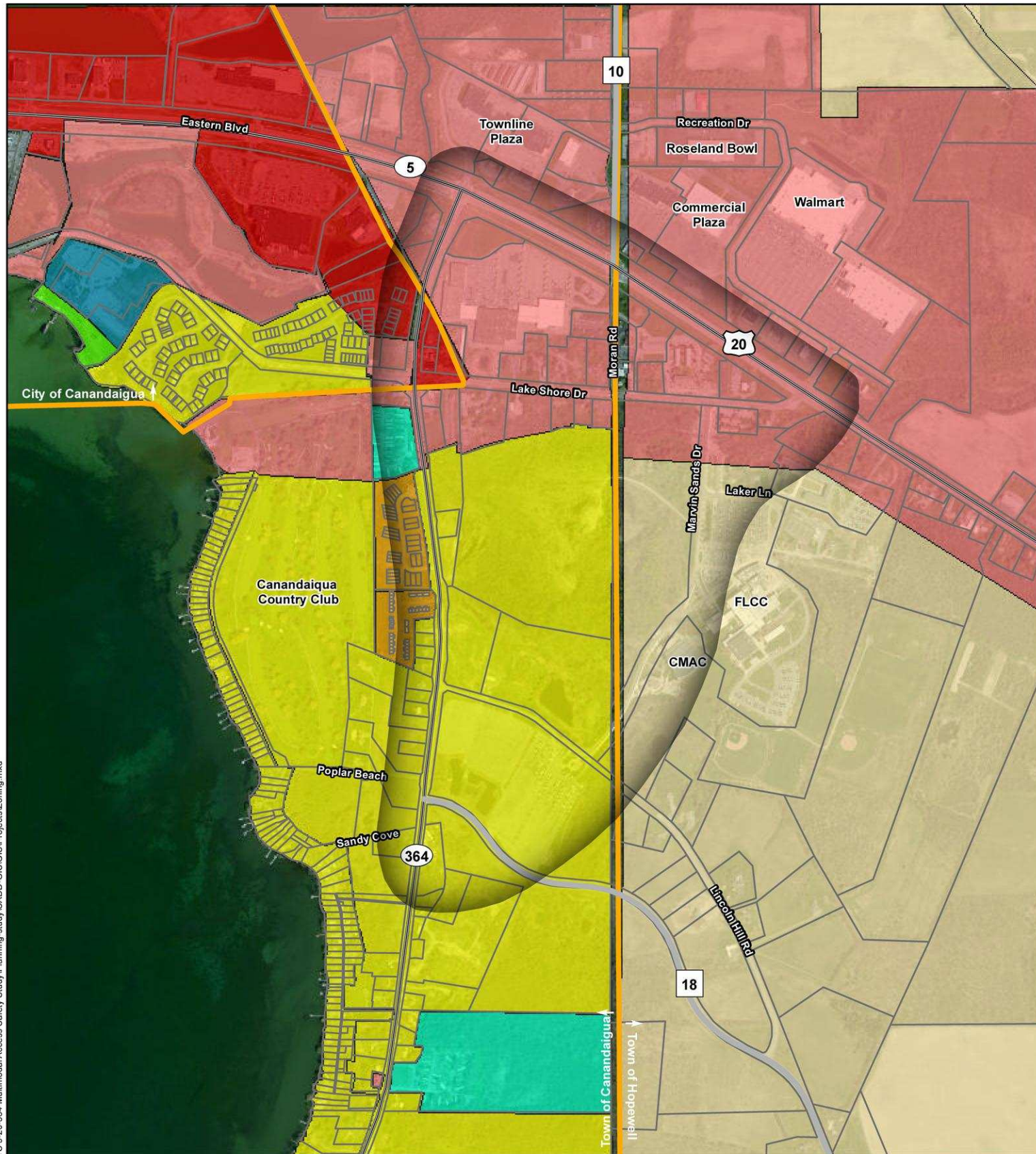
Study Area

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1" = 1000 ft
(When printed on 8.5" X 11")



Date: 12/12/2015



0 500 1,000 2,000 Feet

1" = 1000 ft
(When printed on 8.5" X 11")

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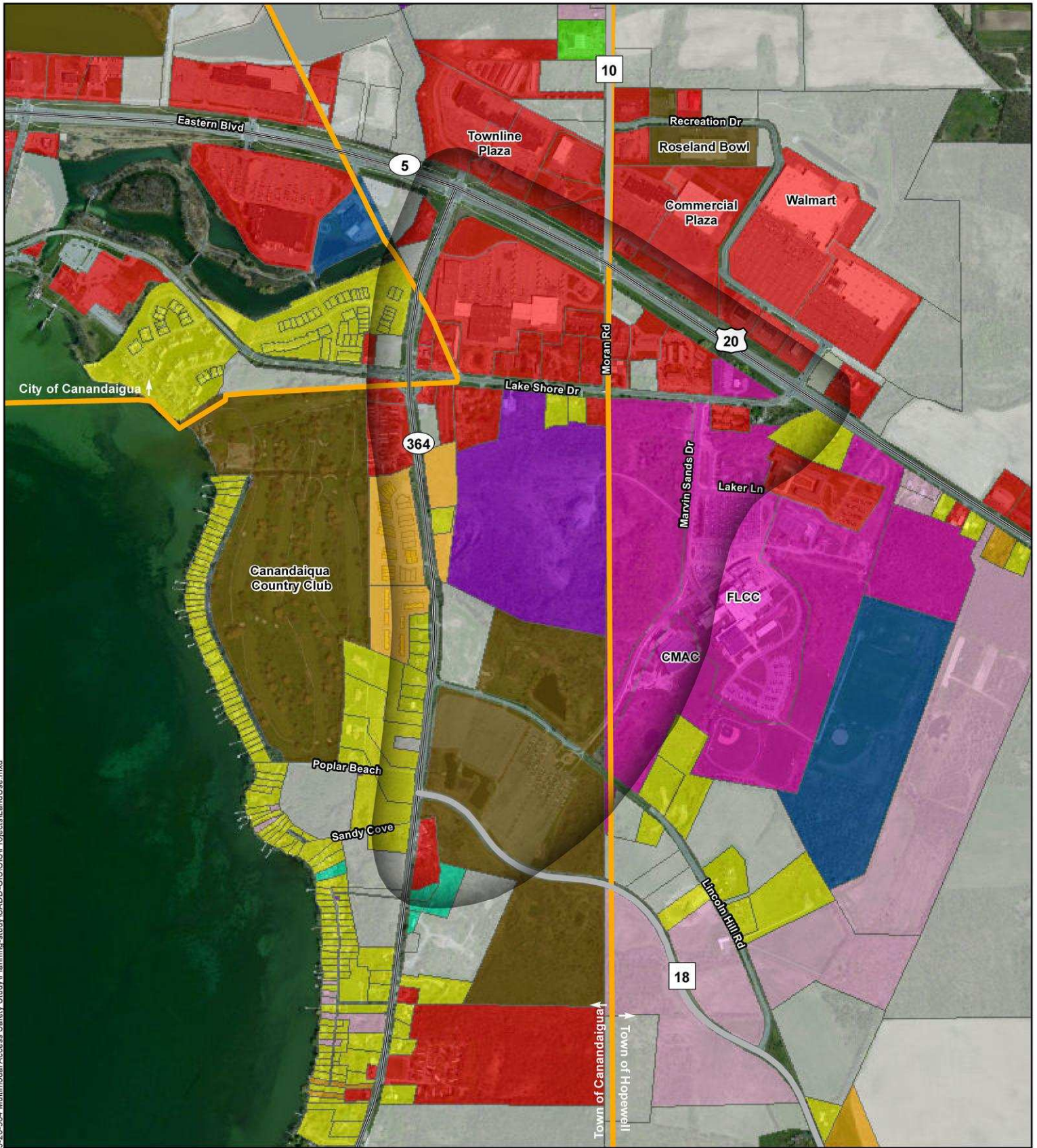
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|---------------|--------------------------------|---------------------------|-------------------------------|
| Study Area | Residential | Mobile Home | Parks and Recreation District |
| Town Boundary | Low/Medium Density Residential | Commercial | Planned Unit Development |
| Parcels | Multiple Residential | Heavy Commercial District | Study Area |



Zoning

Date: 12/10/2014





0 500 1,000 2,000 Feet

1" = 1000 ft
(When printed on 8.5" X 11")

Legend

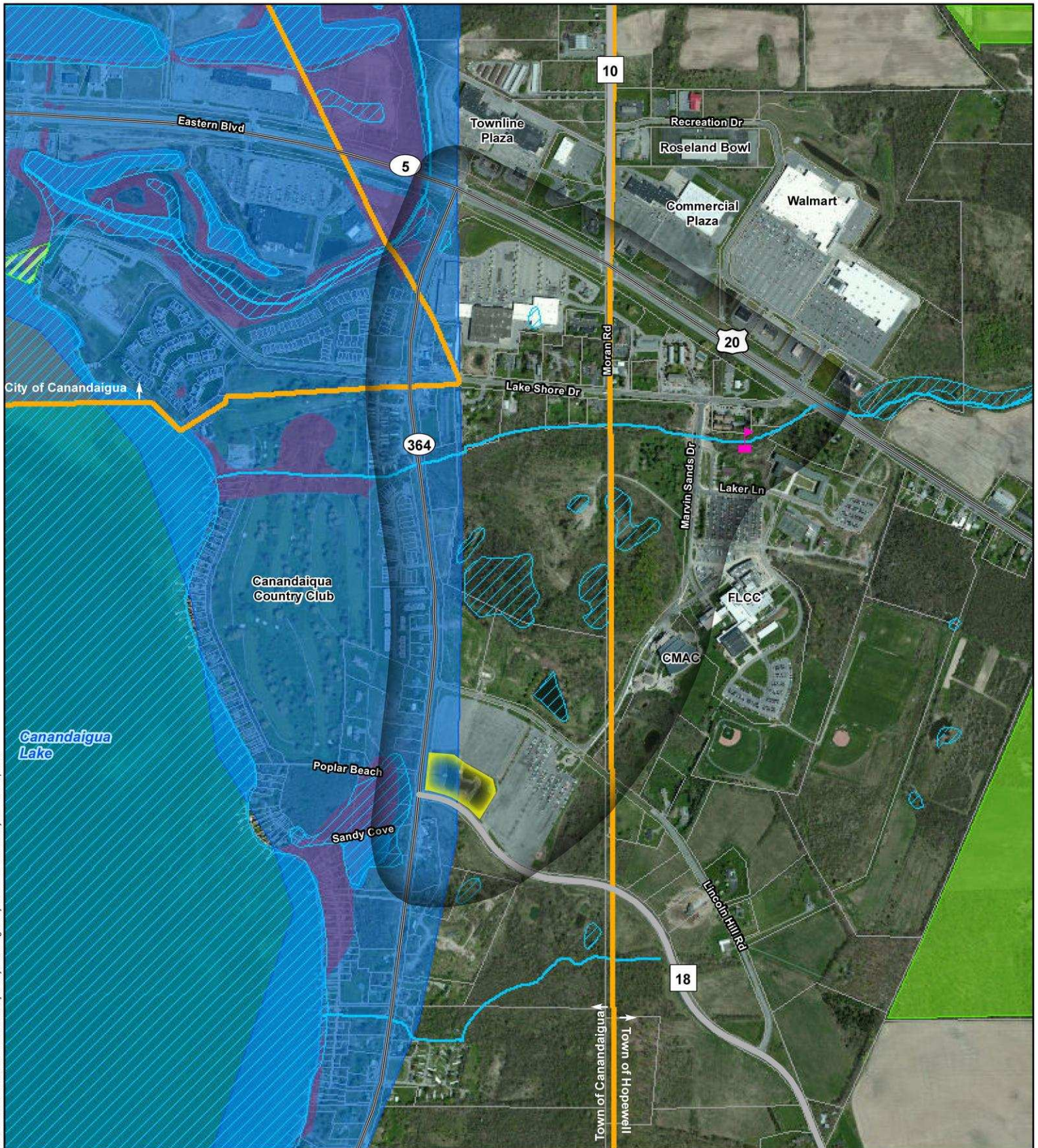
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|---------------------------|--------------------------|---------------|-------------------------|--|
| Study Area | Multi Family Residential | Commercial | Public Service | Vacant (Residential/Commercial/Agricultural) |
| Town Boundary | Mobile Home | Agricultural | Colleges & Universities | Study Area |
| Single Family Residential | Other Residential | Entertainment | Government | |



Land Use

Date: 12/10/2017





Date: 12/12/2012

1" = 1000 ft
(When printed on 8.5" X 11")

0 500 1,000 2,000
Feet

Legend

- | | | |
|-----------------------|-----------|-----------------------|
| Study Area | School | Wetlands |
| City/Town Boundary | Stream | Agricultural District |
| Parcels | Waterbody | Recreation* |
| Floodplain (Zone-AE*) | Aquifer* | Man Made Wetland |

* The whole area shown on the map is delineated as 'Archeo Sensitive Area'

*Recreation area identified on this map is 'Kershaw Park';
Aquifer identified on this map is a 'Confined' Aquifer;
AE - Area inundated by 100-year flooding, for which Base Flood
Elevations (BFEs) have been determined

Environmental Overview



B - 48



0 375 750 1,500 Feet

1 inch = 750 feet
(When printed on 8.5" X 11")

Legend

Study Area

Parcels

City/Town Boundary

County Road

State Highway

US Highway

Signalized Intersections

Lane Configurations

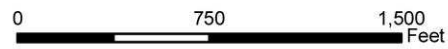
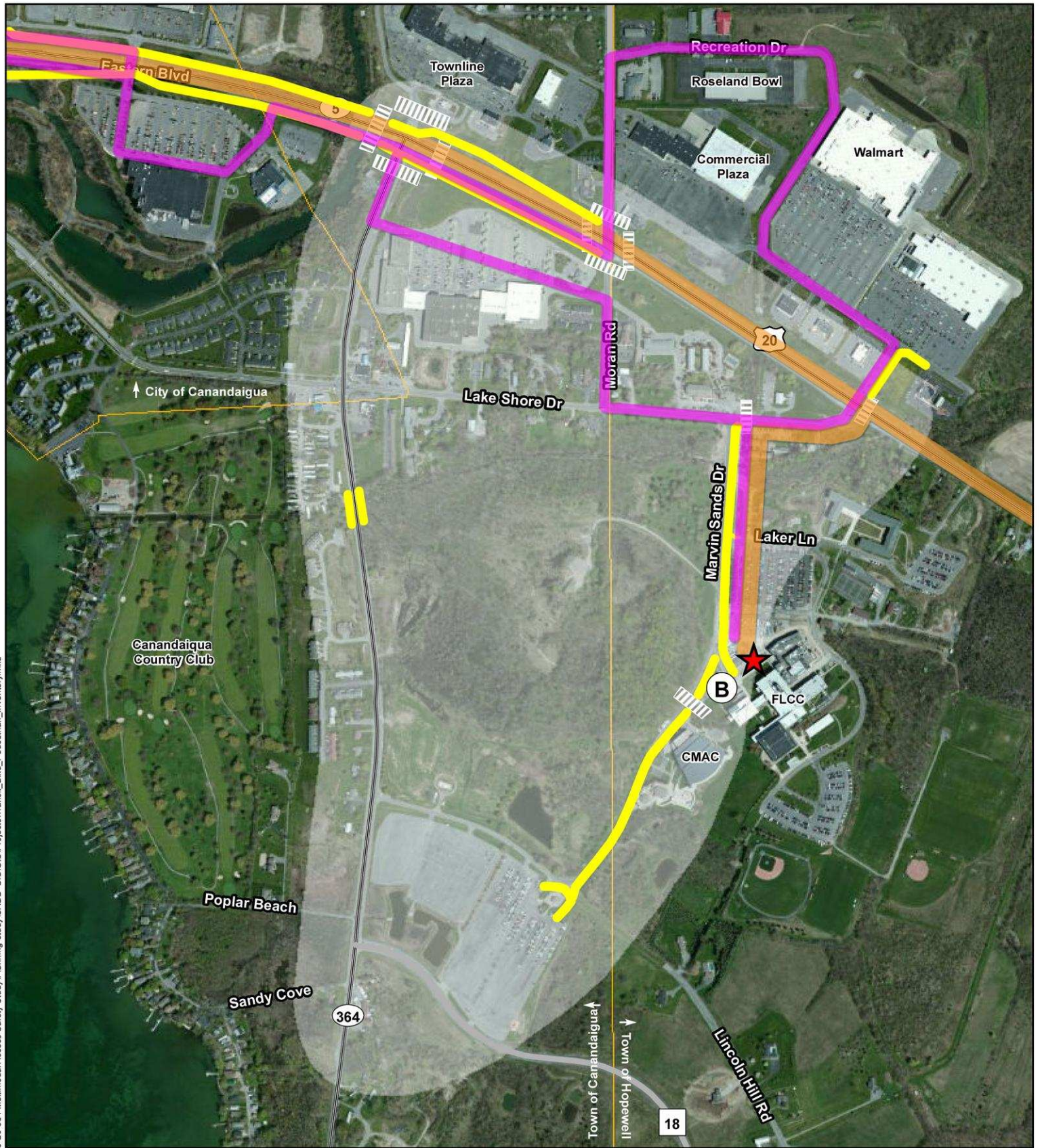


Roadway Geometry

Date: 12/12/2019



F:\Project371 - ONTARIO COUNTY\371009001 - RTS 5-20-364 Multimodal Access Safety Study\Planning-study\ACADD-GIS\GIS\Projects\Transit_Bike_Pedestrian_Inventory.mxd



1 inch = 750 feet
(When printed on 8.5" X 11")

Legend

- | | | | |
|--------------------|---------------|-----------|--------------|
| Study Area | County Road | Crosswalk | Bus Shelter |
| Parcels | State Highway | Sidewalk | CATS Route 2 |
| City/Town Boundary | US Highway | Bike Rack | CATS Route 4 |

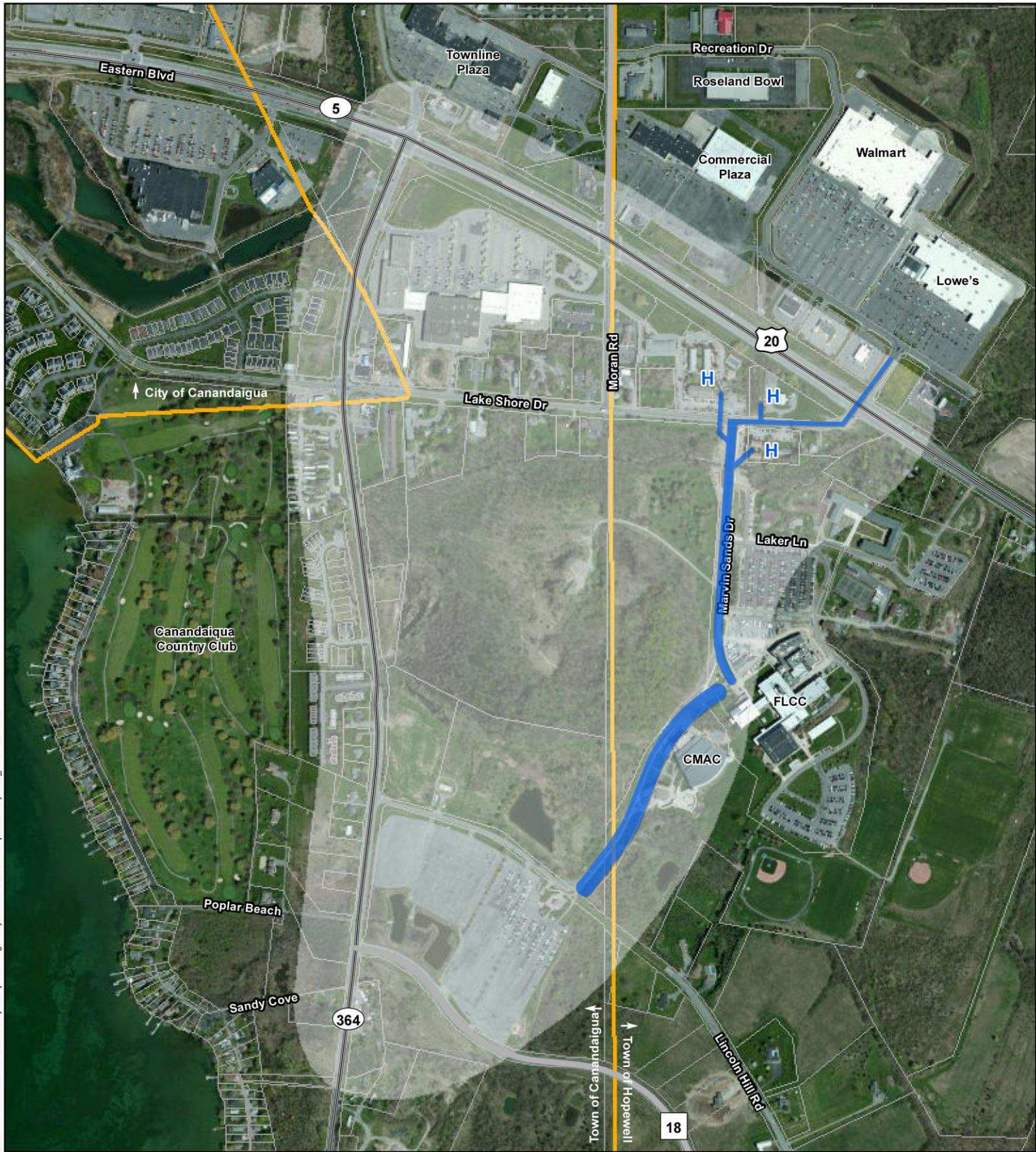


Transit/Bicycle/Pedestrian Inventory

Date: 12/12/2018



Source: Parcels, boundaries and street data received from Ontario County and processed by C&S Engineers, Inc.; Aerial Imagery background is from Bing Maps; Crosswalk, Sidewalk, Bike Rack and Bus Shelter information is based on the field survey



Legend

- Study Area
- Parcels
- Town Boundary
- H Student Housing
- Line Thickness Indicates Amount of Pedestrian Activity
- 10 County Road
- 364 State Highway
- 20 US Highway

0 750 1,500 Feet

1 inch = 750 feet
(When printed on 8.5" X 11")



Typical Weekday Pedestrian Patterns

Date: 12/12/2018





Legend

- Study Area
- Parcels
- Town Boundary
- UP Unofficial Parking
- Line Thickness Indicates Amount of Pedestrian Activity
- County Road
- State Highway
- US Highway

0 750 1,500 Feet

**Special Event Pedestrian
Patterns & Parking Areas**
(Tim McGraw Concert
6/29/12 @ 7:30 pm)

1 inch = 750 feet
(When printed on 8.5" X 11")



Date: 12/12/2012



CMAC Special Event Observations

Event	Day/Date/ Start Time	Attendance	Other events/activities	Traffic – enforcement/vehicle queues	Parking – VOR/location-occupancy
Tim McGraw	Friday/6-29-12/ 7:30 pm	9,400	Some PM commuter; lake traffic; beginning of holiday week – vacation travel	<p>Enforcement:</p> <ul style="list-style-type: none"> 14 - Ontario County Sheriff's Office Law Enforcement Division (6 for traffic posts, 4 bike patrol, 2 for parking lot patrol/arrests, 1 MOCOM Operator and 1 Sergeant) 3 - Ontario County 911Center, MOCOM 2 - Jail ERT Team 6 – NYSP (5 Troopers/1 Sergeant) – traffic control on Rt 364 @ Lakeshore/Rt 5 <p>Traffic Operations:</p> <ul style="list-style-type: none"> RT 5/20 & Rt 364 – EB queues – 30-50 vehicles; WB minimal although WBL often blocked by stopped traffic on Rt 364 – NYSP observing but not controlling traffic RT 364/Lakeshore – SB traffic queued between Lakeshore and Rt 5/20; WB and EB – avg peak queues of 15 cars RT 364/Muar – EB shoulder used for right turns which creates some conflicts; EBT queue in right lane regularly backs up past left turn bay but clears in one cycle RT 364/CR 18 – all traffic to general lots enter here –volume on RT 364/Lakeshore other than CMAC traffic is light – demand for left turns exceed turn bay but 2 County sheriff's are stationed here starting 2 hours before show and keep RT 364 SB travel moving by almost continuously allowing SBL stopping occasionally to allow NBT traffic to proceed; – SB traffic eventually backs up through Lakeshore due to volume entering lots CR 10/RT 5&20/Moran Rd – not a lot of activity – no wayfinding this way but some traffic does come up Moran knowing there is unofficial parking – limited observations Moran Rd/Lakeshore – very little vehicle traffic - limited observations Rt 5&20/Lakeshore – limited observations <p>Pedestrian/Bicycle:</p> <ul style="list-style-type: none"> Pedestrians/Bicycles on RT 5&20 – is limited pedestrian activity – saw a few pedestrians – 4-6 walking on path on north side of RT 5&20 approaching Rt 364 intersection Some pedestrian activity on RT 364 in shoulders – approaching Lakeshore or continuing north to access Marvin Sands Significant amount of pedestrian activity on Lakeshore <ul style="list-style-type: none"> 670 from west/470 from east @ Marvin Sands 6:40-7:40pm Both shoulders accessing from RT 5&20/Moran/parcels along Lakeshore One crosswalk at Marvin Sands – not really used – majority of pedestrian jaywalking to get shortest link to Marvin Sands Potential for sidewalk on south side of Lakeshore; potential for pedestrian access through Arboretum (?) 	<ul style="list-style-type: none"> VOR –close to split the number with 2-3 occupants and 4+ - average probably in 3+ range although assume this varies by concert Variable Message Sign (VMS) on RT 5&20 indicating free parking at Roseland Water Park – observed only a few people walking from that area Did not observe parking at retail plazas (Michaels/Walmart) north of RT 5&20 although did see a few people walking across RT 5&20 Observed a lot of unofficial CMAC parking at Loews – directly in front of Loews but towards internal access road – pedestrians used sidewalks to walk to RT 5&20 Parkland Plaza - Sandwich board on RT5&20 approaching Muar St indicating CMAC shuttle parking – another sandwich board near shuttle stop between VOA and Key Bank – concert goers can park anywhere in lot except by McDonalds where there was a sandwich board indicating parking for McDonalds patrons only TJ Maxx – remote lot – <ul style="list-style-type: none"> sandwich board and cones indicated CMAC parking opposite TJ Maxx near RT 5&20 – sandwich board knocked over almost no cars in this area some traffic in west corner of lot with occupants walking to Rt 364 along shoulder majority of parking in front of Joann's /out parcel – access to Moran along shoulder to Lakeshore Unofficial parking <ul style="list-style-type: none"> Reliant Credit Union on Moran - \$8 all parcels on Lakeshore with exception of Veterinary Hospital on NW corner of Moran - \$9-15; NE corner with Moran – can park up to 60 cars FLCC Honor House lot has parked up to 200 vehicles – parking proceeds for student scholarships – contact: Curtiss Nehring Bliss, Director of Honors Studies 585-394-3500, ext 7367 \$20 at SE corner of Marvin Sands – parking here and at motel on Moran were primarily associated with overnight rental of rooms <p>Occupancy</p> <ul style="list-style-type: none"> TJ Maxx plaza parking – a little less than ½ full Parkway - ~75 cars General and VIP lots at occupancy @~7:20pm

Event	Day/Date/ Start Time	Attendance	Other events/activities	Traffic – enforcement/vehicle queues	Parking – VOR/location-occupancy
Mumford & Sons	Tuesday, 8-8-12/ 7:00 pm	13,248	PM commuter	<p>Enforcement:</p> <ul style="list-style-type: none"> • 12 OCSO deputies, 1 OCSO supervisor • 2 OC Corrections • 3 OC Communications • 6 NYSP, 1 NYSP supervisor – traffic control Rt 364 @ Rt 5/20; CR 10 <p>Traffic Operations:</p> <ul style="list-style-type: none"> • Traffic exceptionally heavy; SB 332 delays caused some CMAC bound traffic to divert to CR 10 increasing WB 5/20 volume to Rt 364 • Queues on 5/20 backed up EB from 332 and WB from CR 10 • RT 364 delays resulted in cars making u-turns to return to private/alternate parking areas • WB Lakeshore to Rt 364 – 20+ vehicles @ 7pm • NYSP manual traffic control 5/20 & Rt 364 • OCSO had Rt 364/Lakeshore in flash mode ?-8:20 <p>Pedestrian/Bicycle:</p> <ul style="list-style-type: none"> • Significant pedestrian volumes <ul style="list-style-type: none"> ○ Crossing 5/20 @ 364 ○ In shoulders of Rt 364 – steady pedestrian flow filling shoulders and crossing mid-block between stopped cars; access to CMAC opposite Golf Beach Shores; @ 8:05-8:10pm – 180+ pedestrians in shoulder ○ Rt 364 – some bicycles observed in travel lanes to avoid pedestrians in shoulder 	<p>Occupancy:</p> <ul style="list-style-type: none"> • TJ Maxx – lot over capacity with some illegally parked cars • Big Lots - +/-60 cars • Alumni Lot – full • Lowes/Bank - ~170 cars • Parkway - ~200 cars (difficult to est. with some restaurants still open) • P.O. - ~40 cars • Wegmans - ~90 cars

Report/Document Title	Agency/Entity	Author	Date	Recommendations
Policy/Planning				
Routes 5&20 Corridor Management Plan	Ontario County	peter j smith & co, inc.		<ul style="list-style-type: none"> - Update comp plans - Prepare open space plan - Explore feasibility of obtaining lands for protection - Stimulate agricultural economy - Identify new historic sites - Hire grant writer - Update zoning to ensure denser development occurs in hamlets <ul style="list-style-type: none"> • Establish cluster mixed-use development • PUDs - Establish compatible zoning at townlines - Revise subdivision regulations to limit development of individual homes along RTS 5/20 - Develop site design guidelines
NYS Routes 5/20 Corridor Study - Lima to Canandaigua	GTC - Ontario Co (lead)	FRA Planning	Feb-04	<ul style="list-style-type: none"> - Create preservation/enhancement funds <ul style="list-style-type: none"> • Protect viewsheds • Beautification projects • Protect historic areas - Develop corridor as NYS Scenic Byway – has this been done? - Market and promote corridor and tourist attractions along corridor (www.routes5and20.com) - Pursue recreational opportunities (parks, trails, etc) - Develop overlay districts to enable development while maintaining character - Identify funding sources
Town of Canandaigua Comprehensive Plan 2011 Update	Town of Canandaigua	edr Companies	2011	<ul style="list-style-type: none"> - Establish an access management program that addresses all town roadways - Work with State/County trans officials to reduce speed limits where to necessary to be consistent with neighborhood character and address safety and noise concerns - Require all future streets to be built to town's design standards and consider complete streets design - Support work of the trails committee - Plan for and provide adequate maintenance of the town-owned roadways - Keep the town's roadways safe for all users - Consider the needs of pedestrians and bicyclists during transportation planning
Town of Hopewell Comprehensive Plan	Town of Hopewell	CPA	2006	<ul style="list-style-type: none"> - Draft a separate set of design standards for the 5/20 corridor that will help developers understand the vision of the community and decision makers implement the desired appearance, scale and context for future commercial development - Ensure future development adheres to access management techniques including shared driveways, cross-parcel access and adequate sight distances - Using traffic accident reports, identify locations where pedestrian and auto conflicts have occurred - Develop a ped safety and system enhancement plan - Develop a ped safety fact sheet to be mailed to residents on an annual basis - Identify key gateway locations for new community signage and landscaping
Active Transportation Plan - Canandaigua	Canandaigua Walkers & Cyclists	Bill Taylor	2009	<ul style="list-style-type: none"> - Pass complete streets policy in all municipalities and county - Support & investigate Safe Routes to School programs & grants - Prepare action plan toward Bicycle Friendly University designation
Capital Improvement				
Routes 5&20 Corridor Management Plan	Ontario County	peter j smith & co, inc.		<ul style="list-style-type: none"> - Reduce volumes and speeds on RTS 5/20/work with NYSDOT <ul style="list-style-type: none"> • Streetscaping • Shared parking • Service roads • Gateway treatments • Encourage alt modes - Connect parking lots to reduce ingress/egress to main roads
NYS Routes 5/20 Corridor Study - Lima to Canandaigua	GTC - Ontario Co (lead)	FRA Planning	Feb-04	<ul style="list-style-type: none"> - Restripe in and approaching villages for traffic calming and providing parking - Signage <ul style="list-style-type: none"> • Create gateways • Direction/wayfinding – tourist/tourism • Warning <ul style="list-style-type: none"> o Share the road o Sight distance o Changes in speed zones - Landscaping and lighting – create gateways and improve safety
Canandaigua Regional Transportation Study	GTC - Ontario Co (lead)	Clark Patterson Associates	May-06	<ul style="list-style-type: none"> - Additional bus stops - Improvements at RTS 5/20 & CR 10 - New bus route along RT 364 - Additional park and ride stations
Trails Master Plan	Town of Canandaigua	Parks & Rec - Town of Can	2010	<ul style="list-style-type: none"> - Recommend sidewalks on: <ul style="list-style-type: none"> • Moran • Lakeshore from RT 364 to townline • RT 364 from CR 18 to Lakeshore • Marvin Sands from RT 364 to FLCC • Encourage Town of Hopewell to extend sidewalks on Lakeshore from townline to RTS 5/20
Active Transportation Plan - Canandaigua	Canandaigua Walkers & Cyclists	Bill Taylor	2009	<ul style="list-style-type: none"> - Provide bike lanes on RT 364, Marvin Sands Dr, Moran Rd & Lake Shore Dr - Provide sidewalks on Lake Shore Dr - Provide off-road multi-use trail on Lake Shore Dr (west of the study area) - Provide share the road signs as needed - Provide enhanced crosswalks at the intersections of RTS 5/20 with RT 364, CR 10 & Lake Shore Dr and at the intersection of Lake Shore Dr & Marvin Sands Dr
Services/Programs				
Ontario County Fixed Route Evaluation - Final	Ontario County	Nelson Nygaard	Feb-10	<ul style="list-style-type: none"> - Connect FLCC main campus to Sci-Tech campus planned in Victor - CATS needs more marketing and outreach - Ped access important – changes or new services should keep ped access in mind - Target FLCC for marketing campaign - Provide more infrastructure at FLCC
Town of Canandaigua Comprehensive Plan 2011 Update	Town of Canandaigua	edr Companies	2011	<ul style="list-style-type: none"> - Work with Ontario County to provide the level of public transit that meets the community's needs
Active Transportation Plan - Canandaigua	Canandaigua Walkers & Cyclists	Bill Taylor	2009	<ul style="list-style-type: none"> - Add bicycle racks on all CATS buses - Provide more shelters with bike storage - Make schedules more compatible with student/faculty at FLCC

The purpose of these meetings was to introduce the project and solicit feedback from project stakeholder groups. Other groups that were invited but did not attend include:

- Transit providers: County Area Transit System (CATS) , Ontario County ARC
- Canandaigua & Hopewell town representatives
- NYSDOT representatives
- Homeowners associations
- City of Canandaigua police & fire departments

The following is a summary of the comments discussed at the meetings by category:

CMAC Event Comments

- Can accommodate 15,000 attendees, can park approximately 8,000 people on site
- Get complaints from patrons due to limited access – only 2 access points to general lot
- Need to update traffic management plan (every 3 years)
 - Needs to be flexible with the ability to make changes on-site based on situation
 - Provide for different types of shows/attendees
 - Establish formal arrangements with law enforcement
 - No plan currently for drop-off/pick-up activity
 - Does not address pedestrian issues/concerns
 - Have used 2 lanes coned southbound on RT 364 but not officially in plan (consider carrying it to 2 left turn lanes onto CR 18?)
 - Need better wayfinding signage – more variable message boards (currently use 3 boards but all owned by different people and they are too small)
- Pedestrian concerns
 - Desire lines take pedestrians through dark woods/fields (across northeast corner of RT 364 & Marvin Sands)
 - No lighting
 - No shoulders on Lakeshore Dr
 - Pedestrians and vehicle conflict much more during exit
- Need better communication on alternative parking and directions
- Monroe Transportation provides shuttle services from Ontario County Fairgrounds and Parkway Plaza
- If there is a formal agreement between CMAC and private parking entity, CMAC will provide staffing and clean up after event
- Town of Canandaigua requires a permit to provide parking for special events (only one business actually requested one) but Town of Hopewell does not
- Currently send emails to ticket holders regarding parking alternatives
- Use social media day of event – twitter & facebook
- Police will close down RT 364 completely to traffic once general lot is full and direct to Roseland Plaza– traffic may still get onto RT 364 from Lakeshore
- Consider more on-site parking
- No plans to expand capacity of CMAC but number of shows and crowds are growing
- Come complaints about pedestrians on private property

- General parking lot access is the bottleneck point
- Direct exiting traffic to RT 247 – left turns from RT 247 to RTS 5/20 can back up and become safety concern

FLCC Campus Comments

- Plenty of free parking for students – general lot used as overflow
- Fee based parking would be against culture of school
- Providing 25 spaces for carpooling vehicles
- Monday/Wednesday/Friday at 8am is peak period
- New auditorium on campus (400 seats)
- Anticipate more ‘after hours’ activity with new auditorium
- Limited access to Lot D (2 access points)
- Marvin Sands needs sidewalks on both sides (like the raised sidewalk on the east side)
- Student housing on Lakeshore Dr, Moran Rd and RT 364
- Students cross RTS 5/20 to get to retail establishments

Bike/Ped Comments

- The east end of the study area needs pedestrian infrastructure
 - Students to Lowes
 - Residents just east of the study area to commercial area
- Crosswalk at Lowes (RTS 5/20 & Lakeshore) not used correctly
- Needs to be some sort of crossing at CR 10 & Recreation Dr (sidewalk on both sides of CR 10 end here)
- Need to meet needs of population that do not have access or ability to use vehicles
- Bike tourism increasing (bike tours, young bike rider event, etc)
- Need bike infrastructure at FLCC
- Install more signage to warn of presences of bikes/peds (flashing beacons?)
- Make parking lots more bike/ped friendly

Access Comments

- No signal capacity/operational concerns during typical periods
- Access from Poplar Beach (just south of study area) noted as a concern during special events
- Add access to general parking lots off RT 364 between Marvin Sands & CR 18?

Safety Comments

- Safety/operational concerns over new roundabout currently under construction at CR 10 & CR 46, especially during special events
- RTS 5/20: use of eastbound shoulder for right turns onto RT 364 during special events create a safety concern
- Proximity of curb cut to old Walmart from RTS 5/20 on CR 10 is a safety concern
- Intersection of RTS 5/20 & CR 10
 - Midday congestion leads to aggressive driving
 - Street lighting needed
 - Combination of raised and painted medians that are wide can create confusion

- Speed on Lakeshore is concern
- Need more education on roundabouts and ped/bike safety for all

Transit Comments

- Need to provide bike racks on buses
- Provide CATS service to CMAC/special events
- Need to get more FLCC faculty/staff using CATS

Other Comments

- Need to make sure complete streets policy is in place
- Potential development just west of the study area may affect operations and origin/destinations

Memo

To: Project Steering Committee Members

From: Kim Fabend, Sr. Planner/Engineer

Date: April 26, 2013

Re: Routes 5/20 & 364 Multi-Modal Safety & Access Improvements Study
Recommendations Meeting Summary

File: 371.009.001

A steering committee meeting for the Routes 5/20 & 364 Multi-Modal Safety & Access Improvements Study was held at 9:00 am on April 24, 2013 at the Ontario County Department of Public Works (OC DPW) conference room at 2962 County Road 48 in Canandaigua. A list of attendees is provided at the end of this summary.

The purpose of the meeting was to present the findings from the inventory and review of previous plans and studies. A copy of the presentation is enclosed. The meeting agenda included:

- Welcome and Introductions
- FLCC Survey & Public Meeting Overview
- Recommendations
- Next Steps

The following is a brief summary of the discussions that took place at the meeting:

- Realign signal heads at RTS 5/20 with RT 364 and CR 10: presented the option of installing flashing yellow arrow indications centered over the dedicated left turn lane, but could also consider adding standard 3 ball head for inside through lane and moving existing 5 head signal indication centered in dedicated left turn lane
- Specific information regarding examples of recommended bike racks and shelters was requested
- Should consider bike lockers for FLCC buildings, housing, and G lot
- Recommended sidewalk width should be 8 ft to accommodate maintenance with pick-up truck – neither town has special sidewalk snow removal equipment
- Should recommend shared maintenance agreement between towns within study area

- Special event considerations
 - County currently provides assistance with temporary lighting
 - Currently working with Axxess Ontario (<http://www.axcessontario.com/>) and Verizon Wireless to improve fiber optics and cell service – anticipate improvements complete before first show on May 30th
 - CMAC purchased and donated a variable message sign to the County Sheriff – Sheriff has another variable message sign as well
- Along with recommendation to use temporary lighting for special events along RT 364, should consider option to recommend permanent pedestrian-level lighting as well
- Cross section review
 - RT 364
 - Committee preference was for Alternative 1 with sidewalks on both sides
 - Alternative 2 – path will need to transition back to shoulder or sidewalk near Lakeshore due to commercial properties
 - Lakeshore Dr
 - Committee preference was for Alternative 2 with 11 ft travel lanes
 - Sidewalk and curb on Lakeshore Dr will help with access management during special events – cars coming and going out of private parking areas
 - Do not consider shared-use path going along Lakeshore Dr – would like to maintain consistent section along Lakeshore Dr & Moran Rd
 - Moran Rd
 - Right-of-way width is 66 ft
 - Committee preference was for Alternative 2 with 11 ft travel lanes
 - May need to realign or eliminate tree lawn near bank
 - Marvin Sands Dr
 - Additional cross sections or revision of these sections is needed due to different sections of roadway
 - Eliminate reconstruction alternative – too many utilities and other issues to make reconstruction feasible

Next Steps

- Public meeting will be held May 16, 2013 at the County's Safety Training Building starting at 7pm – it will be a presentation of the entire project process to-date, including recommendations
- Submittal & review of draft final report will occur electronically
- Anticipate final report submittal before May 31, 2013

Enclosed for your review and comments are:

- Copy of presentation
- Meeting handouts
 - Needs Assessment Summary
 - Overview Draft Recommendations Graphic
 - Draft Roadway Cross Sections

Please provide edits or additions to this meeting summary or comments on the enclosures to:

Kim Fabend, P.E., PTOE
Senior Transportation Engineer/Planner
C&S Companies
499 Col Eileen Collins Boulevard
Syracuse, NY 13212
kfabend@cscos.com

and copy

Timothy G. McElligott, P.E.
Professional Engineer
Ontario County Department of Public Works
2962 County Road 48
Canandaigua, NY 14424
timothy.mcelligott@co.ontario.ny.us

List of Attendees

Tim McElligott, OCDPW
Joe Bovenzi, GTC
Vern Hecker, Town of Hopewell
James Sprague, City of Canandaigua
Jim Fletcher, Town of Canandaigua
Ginny Clark, CMAC/Constellation Brands
Aileen Maguire Meyer, C&S
Kim Fabend, C&S




Routes 5/20 & Route 364 Multi-Modal Safety &
Access Improvement Study
Recommendations Meeting

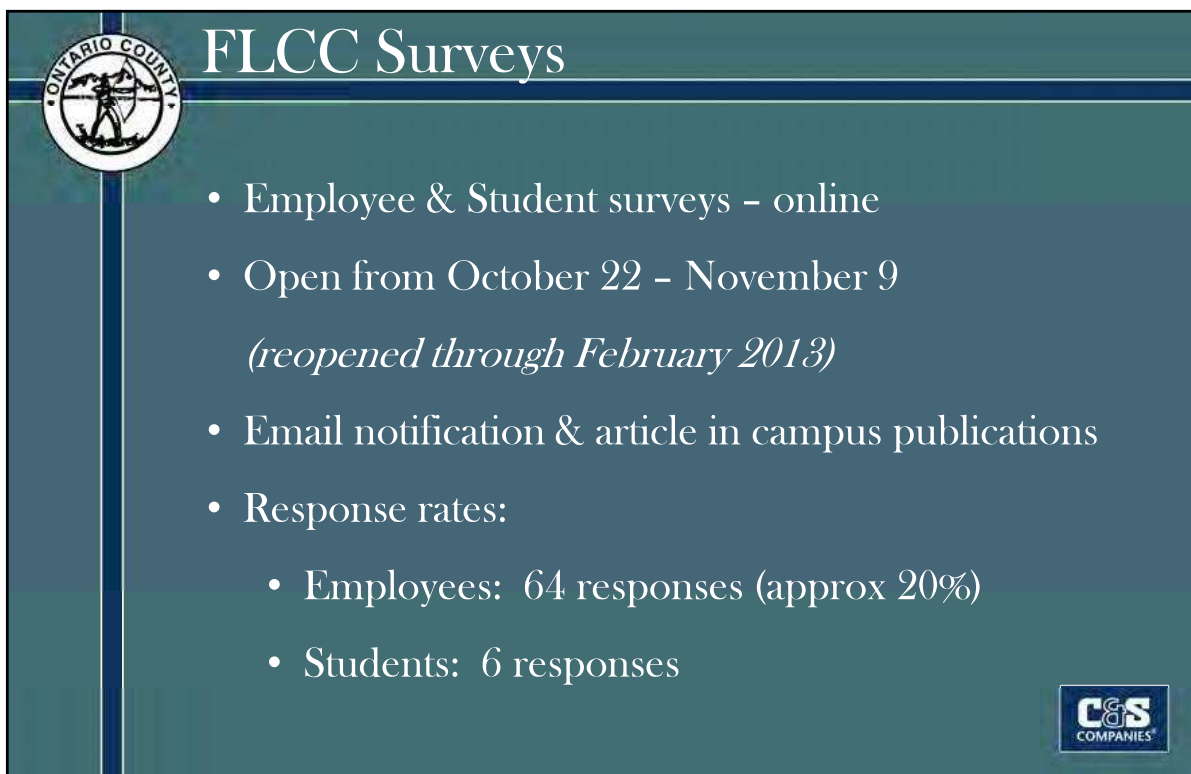
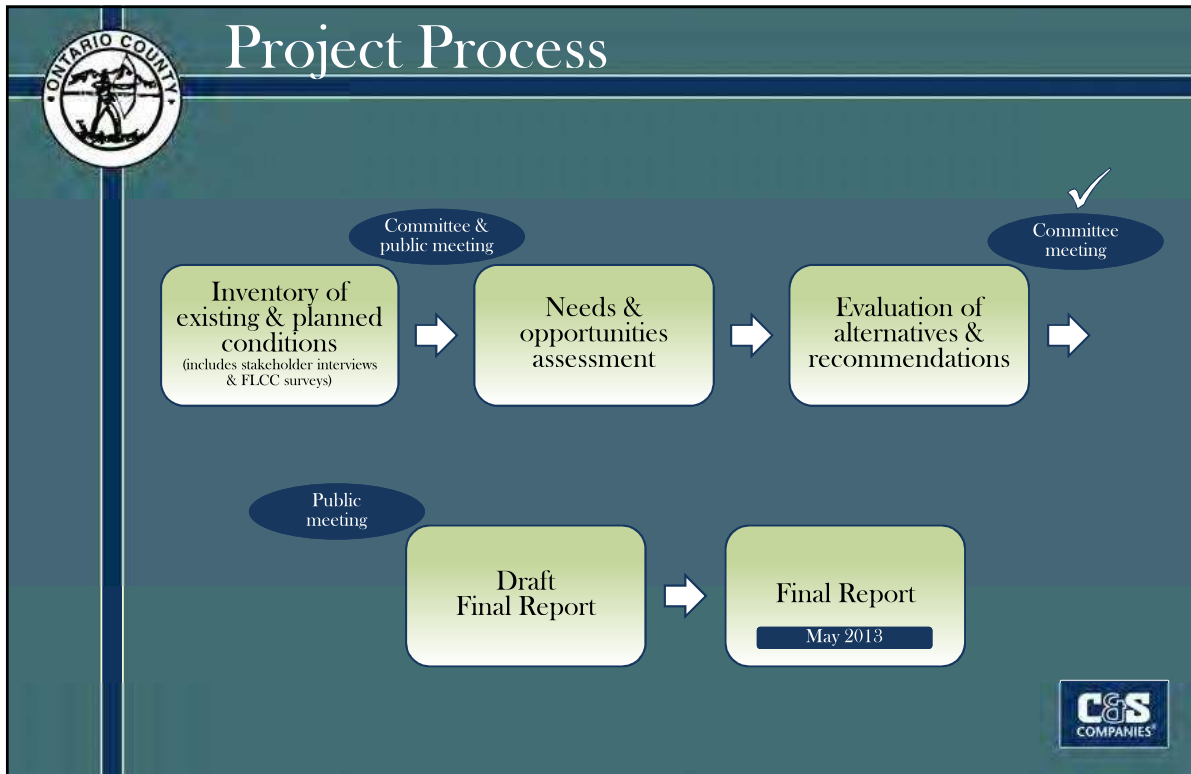
April 24, 2013



Agenda

- Welcome and Introductions
- FLCC Survey & Public Meeting Summary
- Recommendations
- Next Steps







Public Meeting

- January 31, 2013 from 4-6 PM
- FLCC Student Center
- Notifications on County, Town of Hopewell, CMAC, and YNN websites
- Article in Daily Messenger

You Are Invited!

You're invited to attend an open house for the
RTS 5/20 & 364 Multi-Modal Safety & Access Improvements Study
 —an effort to improve safety and accessibility for pedestrians, bicyclists, and motorists in the area surrounding FLCC and CMAC.

Public Open House

Finger Lakes Community College, Student Center, 2nd Floor Lobby
 3325 Marvin Sands Drive • Canandaigua, NY 14424 • Free parking in "A Lot"

January 31, 2013 • 4:00 – 6:00 PM

Review and comment on the transportation system's strengths, weaknesses, and areas in need of improvement.

Please contact the Ontario County Department of Public Works if you have any questions or comments at Timothy.McEligott@co.ontario.ny.us or (585) 396-4000.



Public Meeting

Tell us what you think...

Where are the areas of concern? Where do you walk, bike, & drive?
 What do you think is needed to make the area safer? What do you need to get around safely & efficiently?

FLCC employee & student surveys Comment forms & maps



Bicycle/Pedestrian/Transit Inventory





Public Meeting

Vehicular Concerns:

- Need a signal at Lakeshore & Marvin Sands

Pedestrian Concerns:

- Students cut behind (north of) Honors House and cut across RTS 5/20 to get to Walmart/Lowes
- Snow plowing needs to be pushed farther out so pedestrians can walk on sidewalk instead of having to talk in travel lane - especially along Lakeshore
- Need sidewalks on Lakeshore especially between Marvin Sands (Honors House) and Moran
- Crossing Moran is very difficult



Public Meeting

FLCC Campus Concerns:

- Need a shuttle from G lot to campus
- G lot needs better security - more lighting & an emergency blue light between Lot G and campus
- Need better bike security - bikes are getting stolen from existing bike rack
- Lack of lighting along RTS 5/20 east of Wegmans
- Lack of speed enforcement on RTS 5/20
- Lack of pedestrian warning signage
- CATS cannot cross county lines and FLCC has campuses in other counties





Recommendations

- Intersection/vehicular safety
- Pedestrian/bicycle safety
- Special event considerations
- Services/programs
- Policy/planning



Intersection/Vehicular Safety

- Provide additional intersection-level lighting
 - RTS 5/20
 - Intersections of Lakeshore Dr with RT 364, Moran Rd & Marvin Sands Dr

Existing lighting on RTS 5/20
west of the study area



- Install landscaping and/or trees along Lakeshore Dr & Moran Rd to calm traffic & create a sense of place





Intersection/Vehicular Safety

- Conduct traffic control warrant analyses at Lakeshore Dr with Moran Rd & Marvin Sands Dr
- Realign traffic signal heads at the intersections of RTS 5/20 with CR 10 & Lakeshore Dr

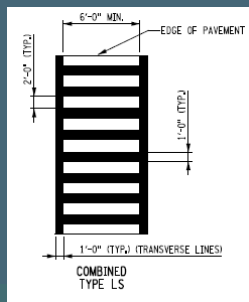


Excerpt from 2009 MUTCD

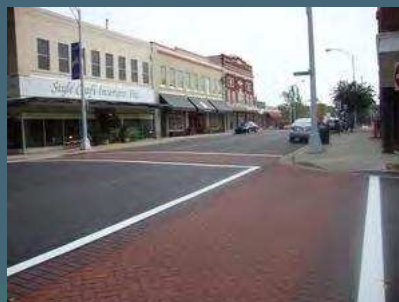


Pedestrian/Bicycle Safety

- Close gaps in sidewalk network
- Install enhanced crosswalks with appropriate warning signage



Ladder-type striping



Integrated Pavement



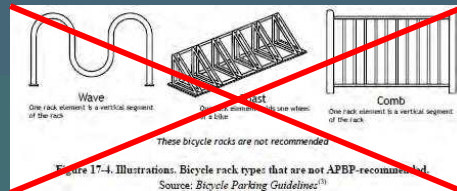
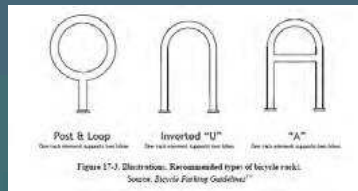
- Install permanent barrier along RTS 5/20





Pedestrian/Bicycle Safety

- Install sharrows, bike lanes, or shared-use paths with appropriate warning signage
- Provide additional bike racks & shelters
 - Residential/commercial properties
 - FLCC
 - CATS buses



Special Event Recommendations

- Develop 2-3 special event traffic management plans
- Communications improvements
- Use temporary lighting for pedestrians along RT 364
- Implement dual left turn lanes southbound on RT 364 @ CR 18 to improve traffic flow
- Install permanent barrier along Marvin Sands @ G lot





Services & Programs

- Market & promote CATS services
- Provide additional routes & service times
- Market & promote active transportation & transportation demand management at FLCC



Town Codes

- Town of Canandaigua
 - Installation of sidewalks/paths as required by Planning Board discretion
 - Need language to address bicycle parking/infrastructure in site plan design criteria
 - Need to address the process & financial details if someone wishes to improve sidewalks
- Town of Hopewell
 - Some pedestrian accommodations - no mention of bicycles
 - Language regarding requirement of sidewalks in residential subdivisions need to be strengthened





Roadway Cross-sections

- Options/Alternatives
 - No major reconstruction
 - Sharrows for bikes in existing travel lane
 - Install sidewalks
 - Install lighting & landscaping
 - Reconstruction
 - Widening to accommodate 5 ft bike lanes
 - Install sidewalks
 - Install lighting & landscaping
 - No major reconstruction with shared-use path
 - Certain roadways
 - Install lighting & landscaping



Project Process – Next Steps

- Schedule Public Meeting #2
 - Ontario County Safety Training Facility
 - May 8, 9, 15 or 16 – 7:00 PM start
 - Presentation summarizing entire process with question/answer period
- Provide Draft Final Report electronically with comments via email
- Final Report submitted by May 31, 2013



Needs Assessment Summary

Vehicular traffic needs:

- Signal head realignment at intersections of RTS 5/20 with CR 10 and RT 364
- Better lighting at intersections
- Signal at Lakeshore Dr & Marvin Sands Dr
- Need more speed enforcement on RTS 5/20

Bicycle/Pedestrian needs:

- Sidewalks & crosswalks along RTS 5/20, Lakeshore Dr, Moran Rd, RT 364, & west side of Marvin Sands Dr
- Bike lanes or marking & signage
- More bike/ped infrastructure & warning signage (racks, lanes, shelters, etc)
- Pedestrian-level lighting
- More direct designated pathways with crosswalks to CMAC/FLCC
- Make parking lots more bike/ped friendly
- Discourage jaywalking on RTS 5/20 behind Honors House
- Snowplowing needs to push snow farther from travel lane so pedestrians do not have to walk in travel lanes

Transit needs:

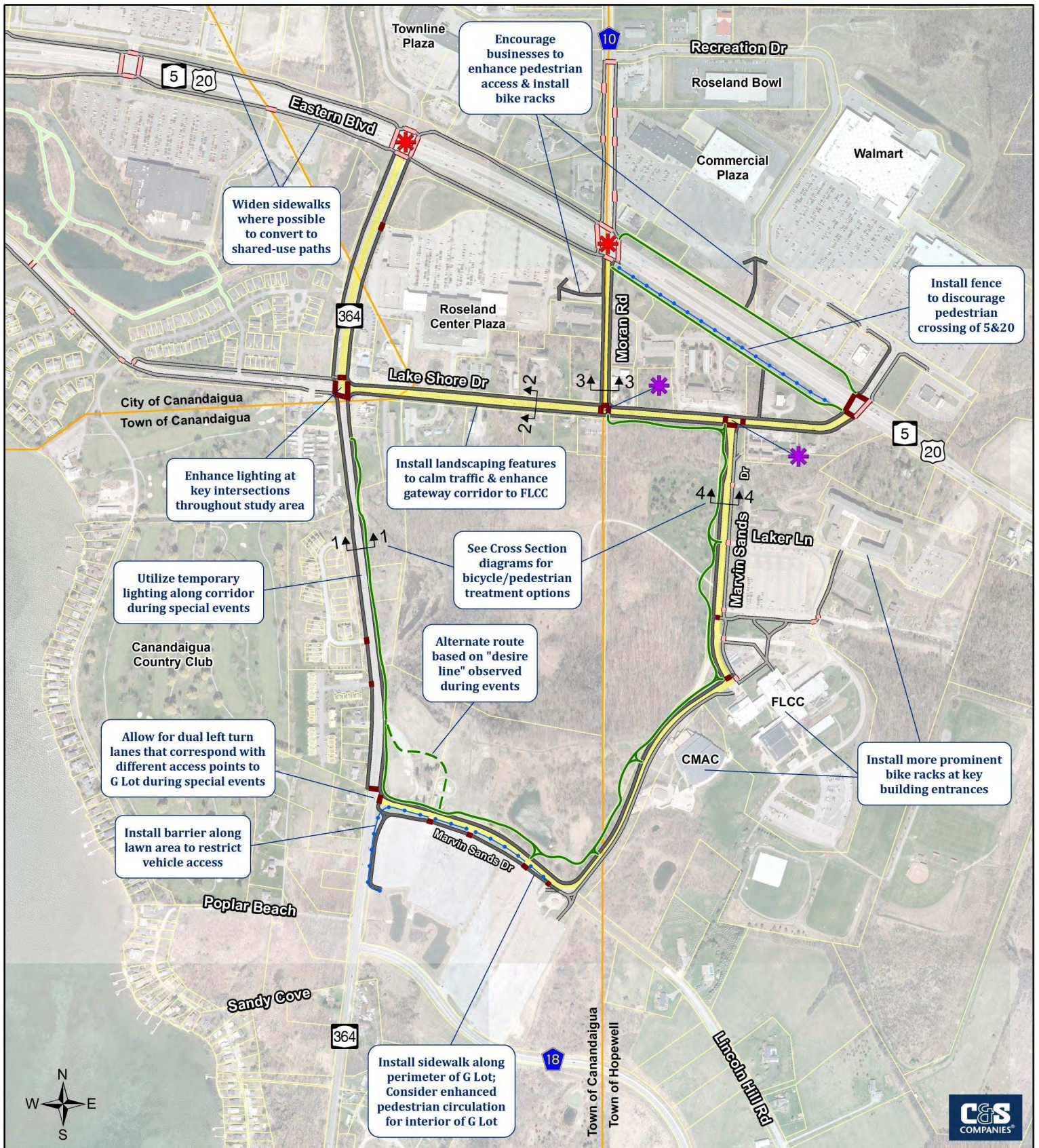
- More direct, reliable transit routes to reduce travel time
- Make information on available services/routes easier to find and understand
- Perceived as unsafe – drivers, germs, etc
- Need bike racks on buses
- Need service between different FLCC campuses
- Need connection between Main St and FLCC
- Provide more direct services to CMAC events

FLCC Campus needs:

- Have limited access to D lot – perceived as unsafe for pedestrians
- Not enough Blue Emergency lights/more security – especially to/from G lot
- Need a shuttle between G lot & campus
- Too many conflict points near main entrance
- Need more bike/ped infrastructure & security (racks, lanes, shelters, etc)

CMAC special event needs:

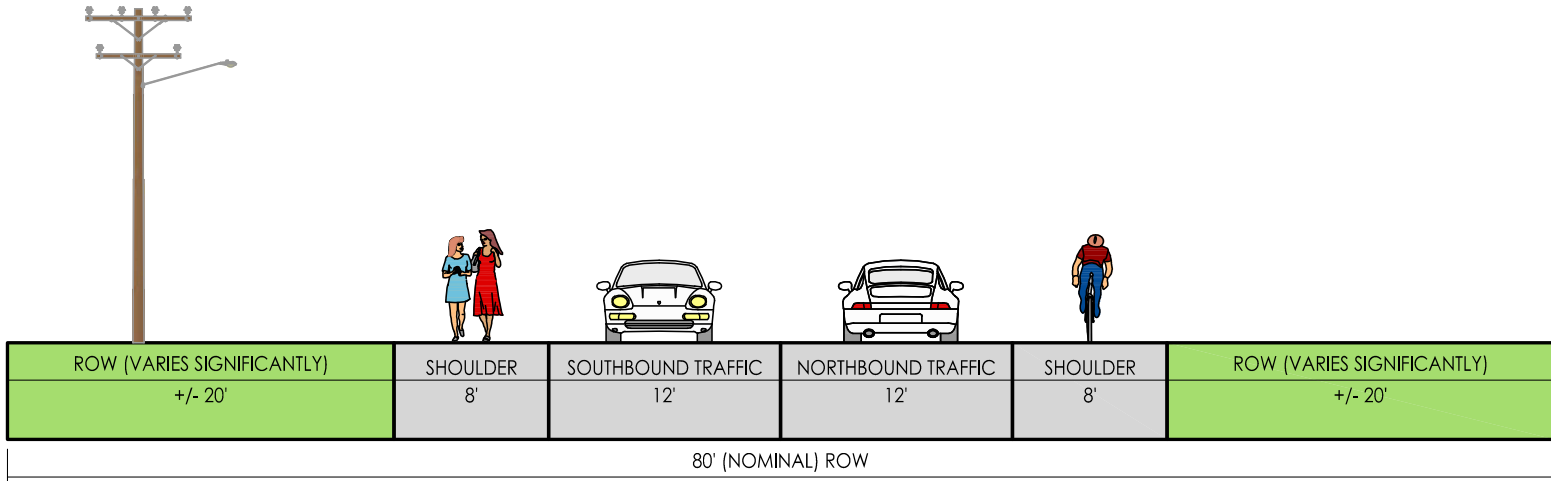
- Updated traffic management plans
- Consider both auto and pedestrian traffic control
- Improve traffic flow & access to G lot
- Improve pedestrian environment & discourage use of private property as pathways
- Improve communications associated with parking options/availability to improve traffic flow
 - Wayfinding
 - Notification of appropriate parking area



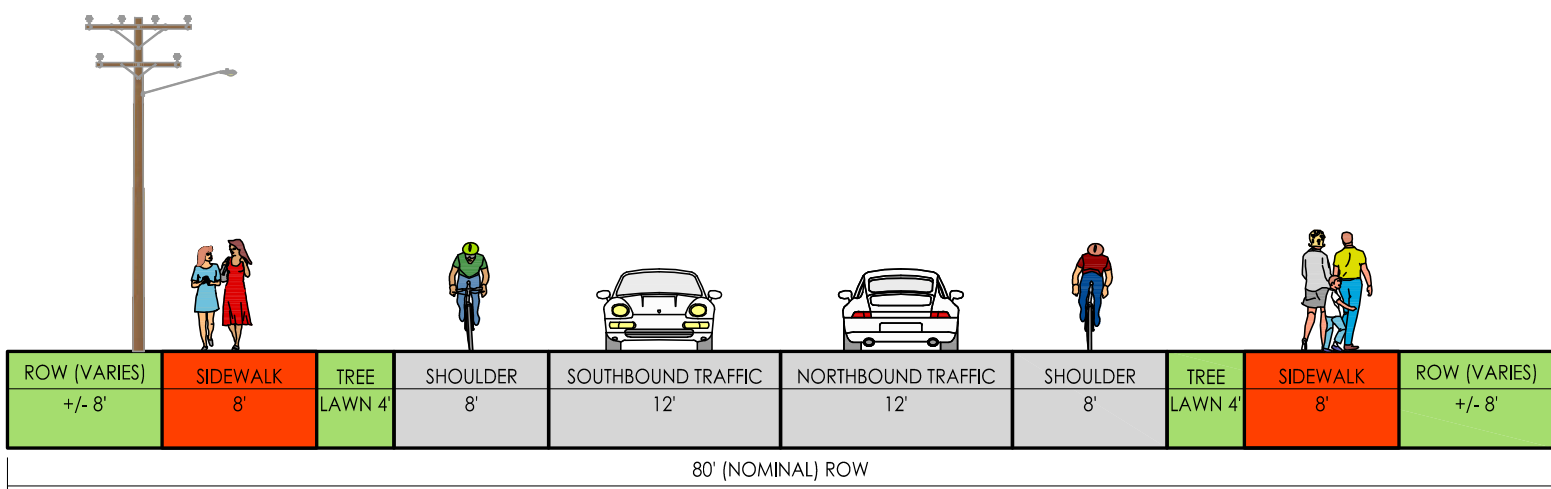
DRAFT Recommendations

Legend

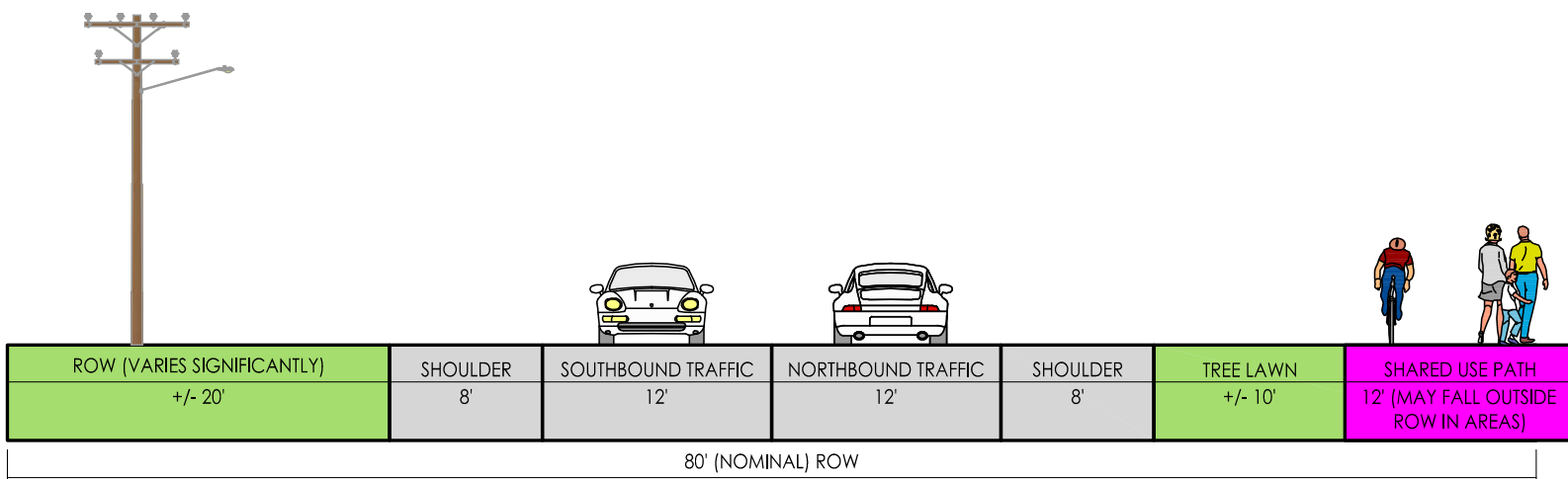
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|-------------------------------|-----------------------|-------------------------------|--|
| — Sidewalks | — Crosswalks | — Shared-Use Paths | ✳ Recommend Traffic Control Warrant Analysis |
| — Proposed Sidewalks | — Proposed Crosswalks | — Proposed Shared-Use Paths | ✳ Realign Signal Heads |
| — Enhance Pedestrian Lighting | — Proposed Barriers | 3↑ 3↑ Cross Section Locations | |



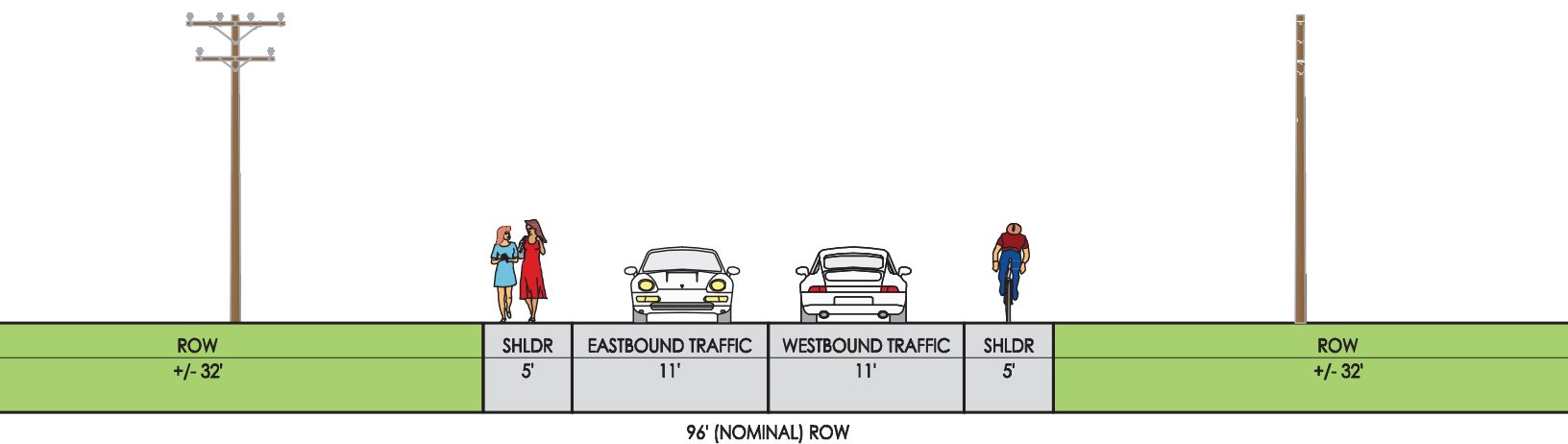
SECTION 1: ROUTE 364, EXISTING CONDITIONS



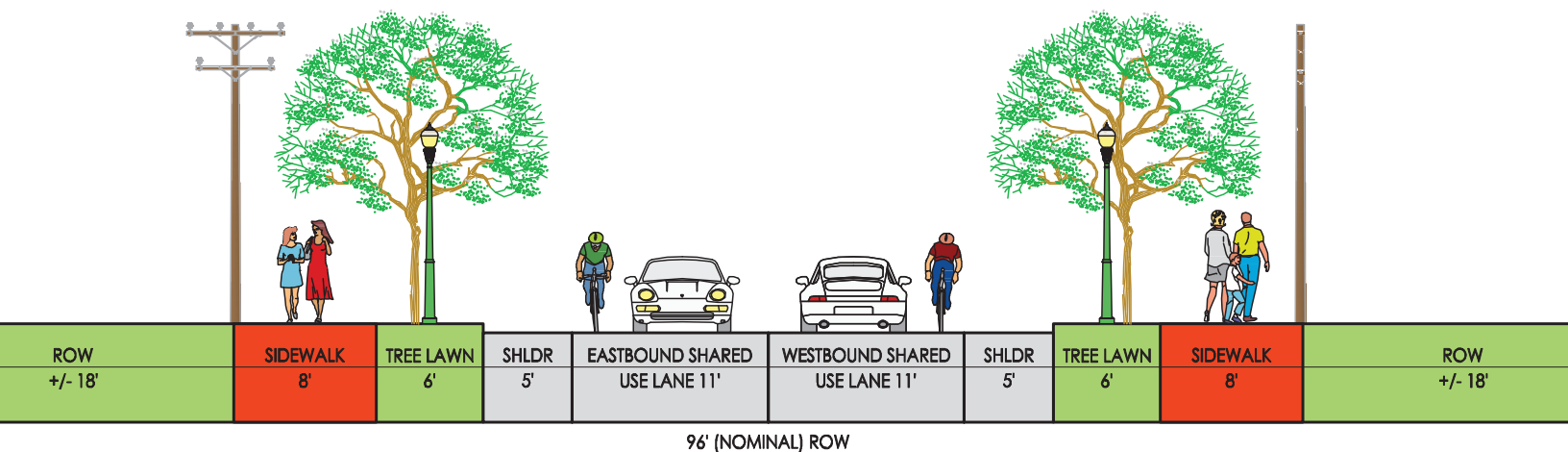
SECTION 1: ROUTE 364, ALTERNATIVE 1



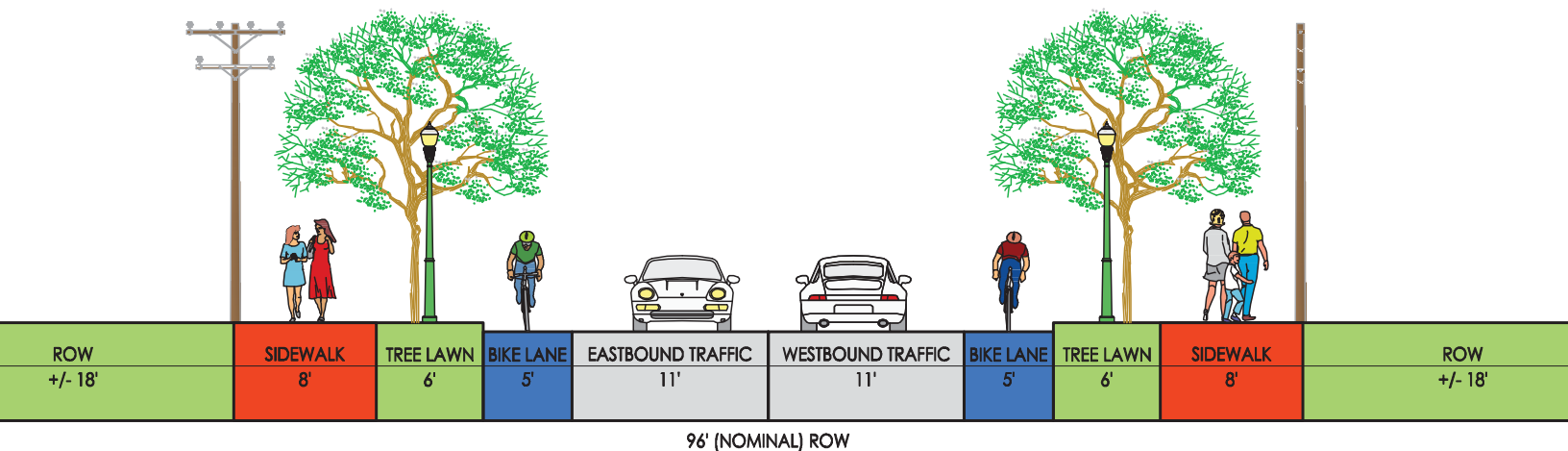
SECTION 1: ROUTE 364, ALTERNATIVE 2



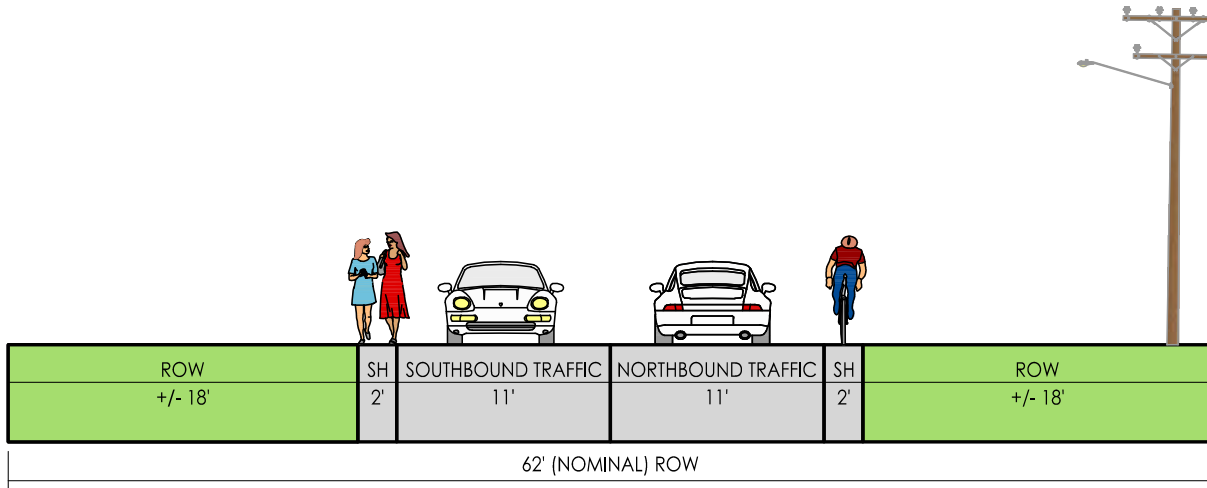
SECTION 2: LAKESHORE DR., EXISTING CONDITIONS



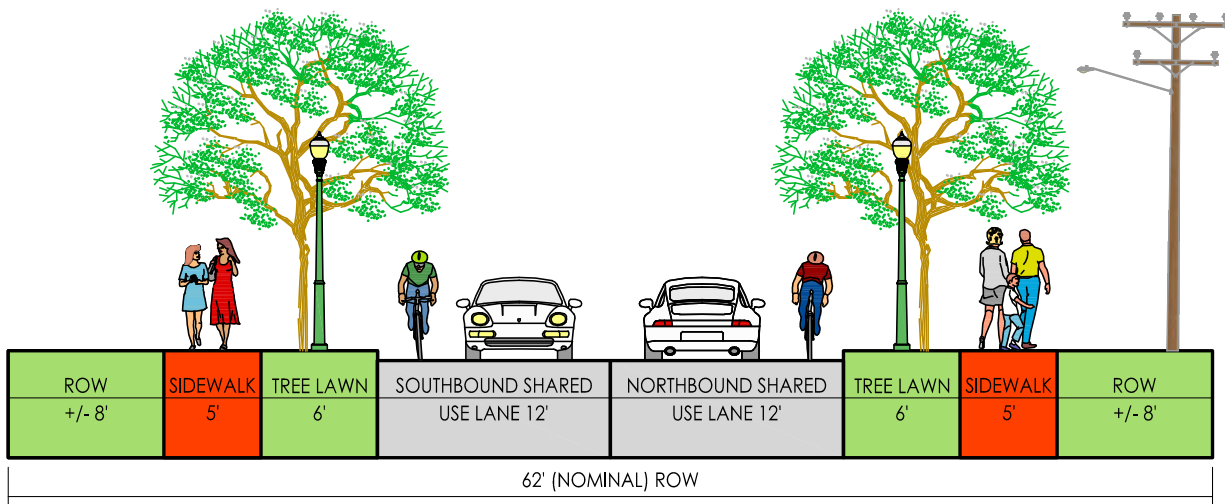
SECTION 2: LAKESHORE DR., ALTERNATIVE 1



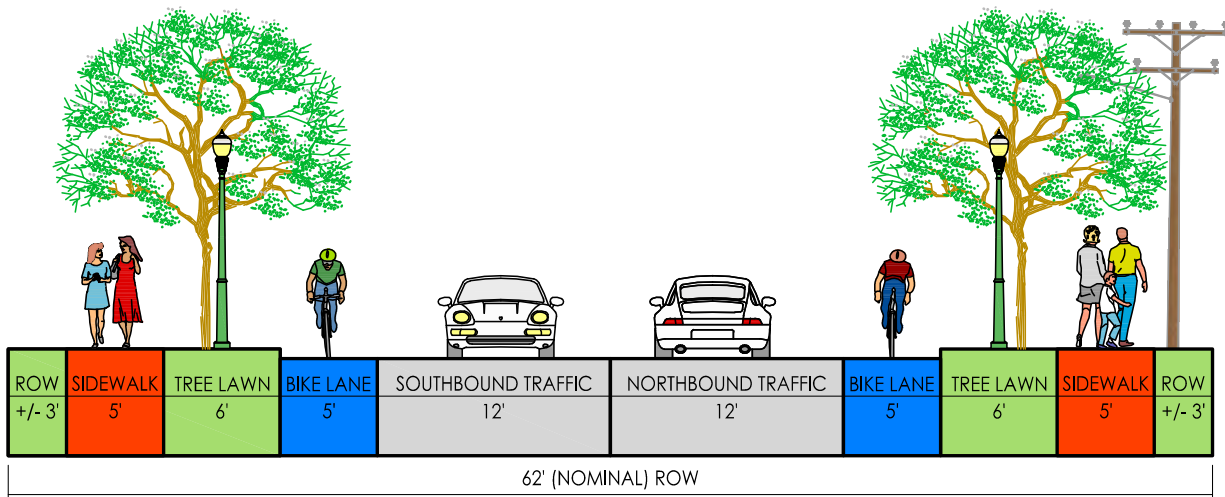
SECTION 2: LAKESHORE DR., ALTERNATIVE 2



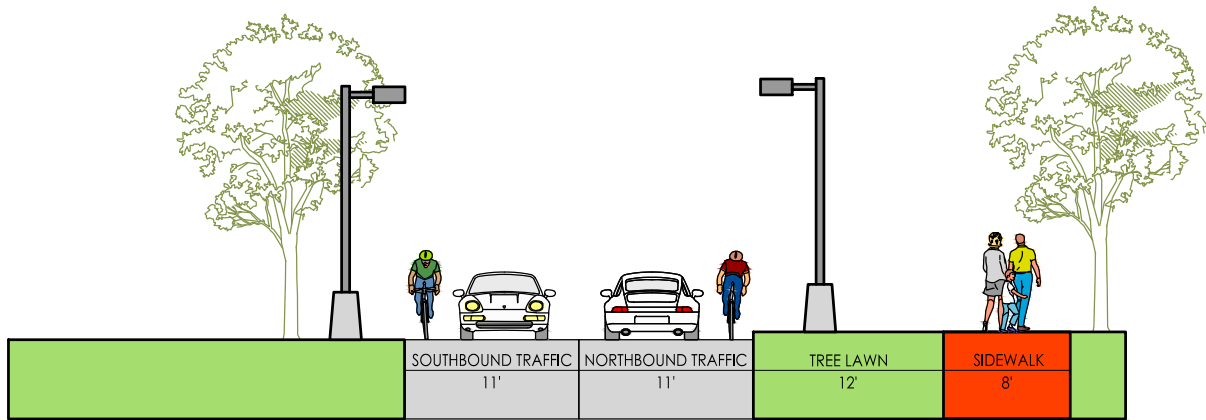
SECTION 3: MORAN RD., EXISTING CONDITIONS



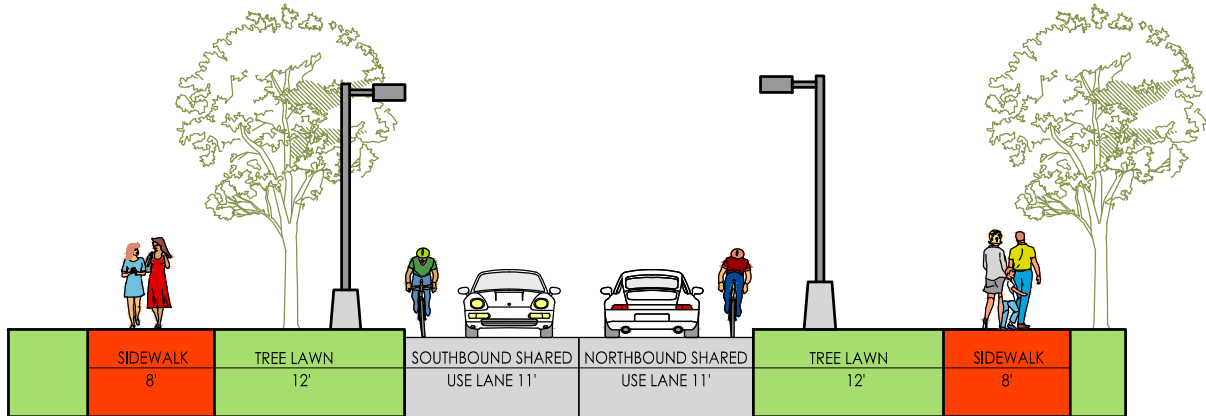
SECTION 3: MORAN RD., ALTERNATIVE 1



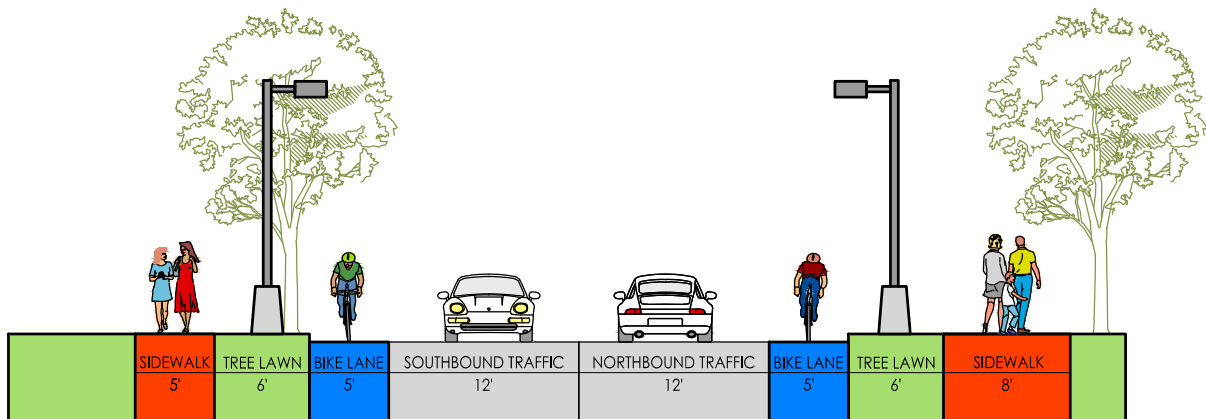
SECTION 3: MORAN RD., ALTERNATIVE 2



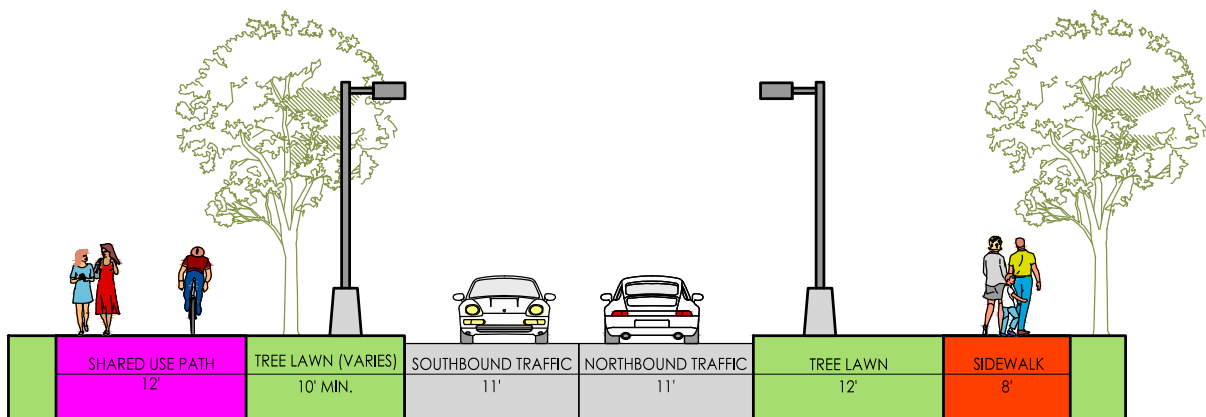
SECTION 4: MARVIN SANDS DR., EXISTING CONDITIONS



SECTION 4: MARVIN SANDS DR., ALTERNATIVE 1



SECTION 4: MARVIN SANDS DR., ALTERNATIVE 2



SECTION 4: MARVIN SANDS DR., ALTERNATIVE 3



Appendix C:

Stakeholder Meeting Notes



Memo

To: Timothy McElligott, Ontario Co DPW
Project Steering Committee
Attendees

From: Kim Fabend, Sr. Planner/Engineer

Date: August 30, 2012

Re: RTS 5/20 & 364 Multi-modal Safety & Access Improvement Study
Stakeholder Interview Summary

File: 371.009.001

The stakeholder interviews for the RTS 5/20 & 364 Multi-modal Safety & Access Improvement Study were held on Tuesday, August 28th, 2012. Over 30 potential stakeholders were invited to attend 4 different available meetings set up throughout the day. A list of attendees is provided below:

Stakeholder Interview Attendees by Meeting

CMAC/Finger Lakes Community College Groups @ 8:30 am

<u>ATTENDEES</u>	<u>REPRESENTING</u>	<u>EMAIL</u>
Steve Williams	CMAC	swilliams@bluecrossarena.com
Bill Gallagher	Ontario Co Sheriff	bill.gallagher@co.ontario.ny.us
Dru Malavase	Traffic Safety Board	drusilla.malavase@co.ontario.ny.us
Dave Cirencione	Ontario Co Sheriff	david.cirencione@co.ontario.ny.us
Ginny Clark	Constellation Brands/CMAC	ginny.clark@cbrands.com
Jason Maitland	FLCC	maitlajr@flcc.edu

Law Enforcement/Emergency Responders Groups @ 1:30 pm

<u>ATTENDEES</u>	<u>REPRESENTING</u>	<u>EMAIL</u>
Brent Bowman	NYS Police	brent.bowman@troopers.ny.gov
Ken Kehl	NYS Police	ken.kehl@troopers.ny.gov
Ray Crombe	Hopewell Fire Dept	ray.crombe@hopewellfire.org
Vince Corona	NYS Police	vincent.corona@troopers.ny.gov

Homeowners/Business Groups @ 3:30 pm

<u>ATTENDEES</u>	<u>REPRESENTING</u>	<u>EMAIL</u>
Jack Moran	Roseland Bowl	jackmoran@fltg.net
Casey Kunes	Ontario Co Fair	casey@hemdalefarms.com
Bill Taylor	City of Canandaigua	william32551@gmail.com
Alison Grems	Canandaigua Chamber	agrems@canandaiguachamber.com

The purpose of these meetings was to introduce the project and solicit feedback from project stakeholder groups. Other groups that were invited but did not attend include:

- Transit providers: County Area Transit System (CATS) , Ontario County ARC
- Canandaigua & Hopewell town representatives
- NYSDOT representatives
- Homeowners associations
- City of Canandaigua police & fire departments

The following is a summary of the comments discussed at the meetings by category:

CMAC Event Comments

- Can accommodate 15,000 attendees, can park approximately 8,000 people on site
- Get complaints from patrons due to limited access – only 2 access points to general lot
- Need to update traffic management plan (every 3 years)
 - Needs to be flexible with the ability to make changes on-site based on situation
 - Provide for different types of shows/attendees
 - Establish formal arrangements with law enforcement
 - No plan currently for drop-off/pick-up activity
 - Does not address pedestrian issues/concerns
 - Have used 2 lanes coned southbound on RT 364 but not officially in plan (consider carrying it to 2 left turn lanes onto CR 18?)
 - Need better wayfinding signage – more variable message boards (currently use 3 boards but all owned by different people and they are too small)
- Pedestrian concerns
 - Desire lines take pedestrians through dark woods/fields (across northeast corner of RT 364 & Marvin Sands)
 - No lighting
 - No shoulders on Lakeshore Dr
 - Pedestrians and vehicle conflict much more during exit
- Need better communication on alternative parking and directions
- Monroe Transportation provides shuttle services from Ontario County Fairgrounds and Parkway Plaza
- If there is a formal agreement between CMAC and private parking entity, CMAC will provide staffing and clean up after event
- Town of Canandaigua requires a permit to provide parking for special events (only one business actually requested one) but Town of Hopewell does not
- Currently send emails to ticket holders regarding parking alternatives
- Use social media day of event – twitter & facebook
- Police will close down RT 364 completely to traffic once general lot is full and direct to Roseland Plaza– traffic may still get onto RT 364 from Lakeshore
- Consider more on-site parking
- No plans to expand capacity of CMAC but number of shows and crowds are growing
- Come complaints about pedestrians on private property

- General parking lot access is the bottleneck point
- Direct exiting traffic to RT 247 – left turns from RT 247 to RTS 5/20 can back up and become safety concern

FLCC Campus Comments

- Plenty of free parking for students – general lot used as overflow
- Fee based parking would be against culture of school
- Providing 25 spaces for carpooling vehicles
- Monday/Wednesday/Friday at 8am is peak period
- New auditorium on campus (400 seats)
- Anticipate more ‘after hours’ activity with new auditorium
- Limited access to Lot D (2 access points)
- Marvin Sands needs sidewalks on both sides (like the raised sidewalk on the east side)
- Student housing on Lakeshore Dr, Moran Rd and RT 364
- Students cross RTS 5/20 to get to retail establishments

Bike/Ped Comments

- The east end of the study area needs pedestrian infrastructure
 - Students to Lowes
 - Residents just east of the study area to commercial area
- Crosswalk at Lowes (RTS 5/20 & Lakeshore) not used correctly
- Needs to be some sort of crossing at CR 10 & Recreation Dr (sidewalk on both sides of CR 10 end here)
- Need to meet needs of population that do not have access or ability to use vehicles
- Bike tourism increasing (bike tours, young bike rider event, etc)
- Need bike infrastructure at FLCC
- Install more signage to warn of presences of bikes/peds (flashing beacons?)
- Make parking lots more bike/ped friendly

Access Comments

- No signal capacity/operational concerns during typical periods
- Access from Poplar Beach (just south of study area) noted as a concern during special events
- Add access to general parking lots off RT 364 between Marvin Sands & CR 18?

Safety Comments

- Safety/operational concerns over new roundabout currently under construction at CR 10 & CR 46, especially during special events
- RTS 5/20: use of eastbound shoulder for right turns onto RT 364 during special events create a safety concern
- Proximity of curb cut to old Walmart from RTS 5/20 on CR 10 is a safety concern
- Intersection of RTS 5/20 & CR 10
 - Midday congestion leads to aggressive driving
 - Street lighting needed

- Combination of raised and painted medians that are wide can create confusion
- Speed on Lakeshore is concern
- Need more education on roundabouts and ped/bike safety for all

Transit Comments

- Need to provide bike racks on buses
- Provide CATS service to CMAC/special events
- Need to get more FLCC faculty/staff using CATS

Other Comments

- Need to make sure complete streets policy is in place
- Potential development just west of the study area may affect operations and origin/destinations

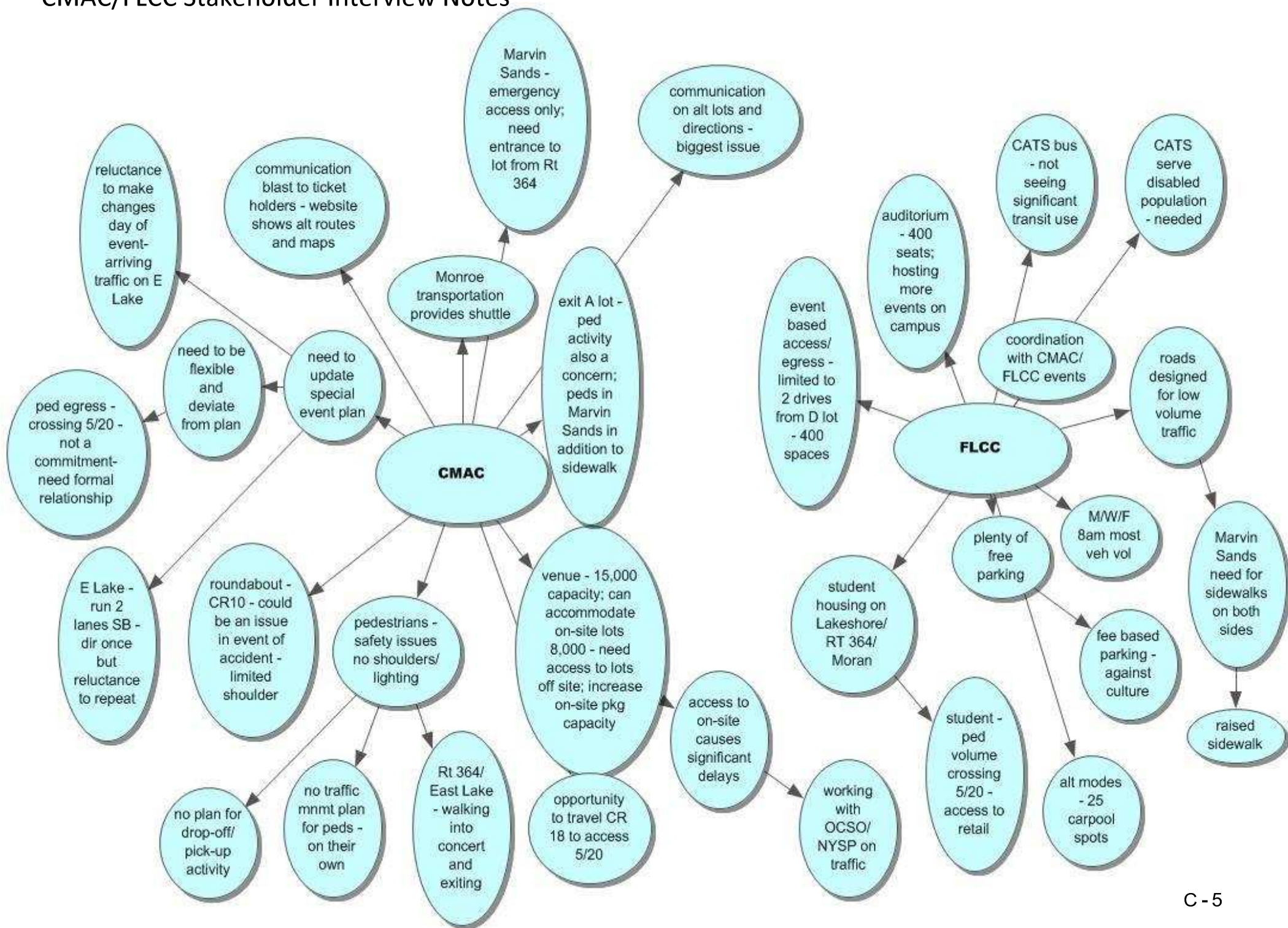
Enclosures:

- Comment summaries from each meeting

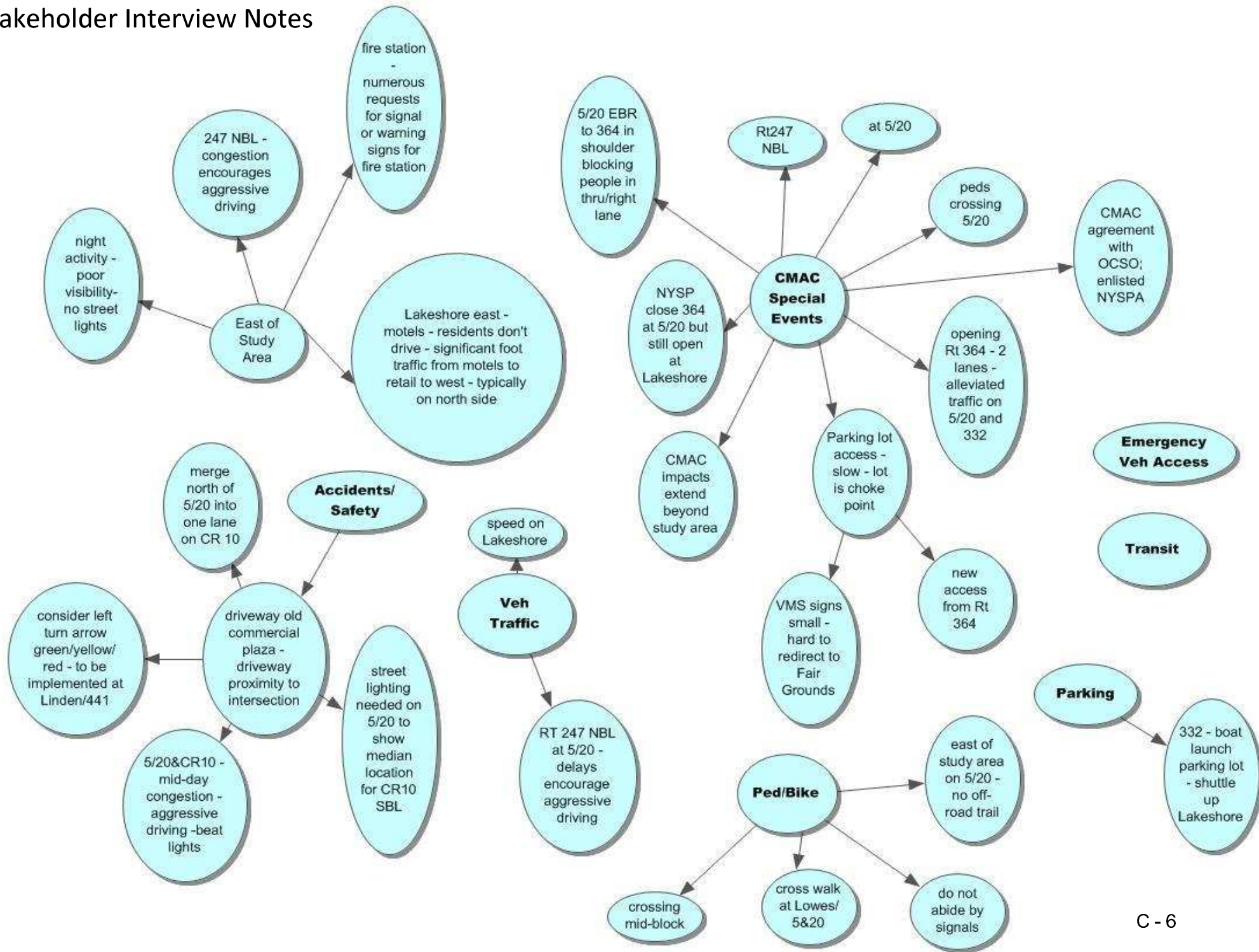
Please provide edits or additions to this meeting summary or comments on the enclosures to:

Kimberly M. Fabend
C&S Companies
499 Col Eileen Collins Blvd
Syracuse, NY 13212
kfabend@cscos.com
315-703-4405

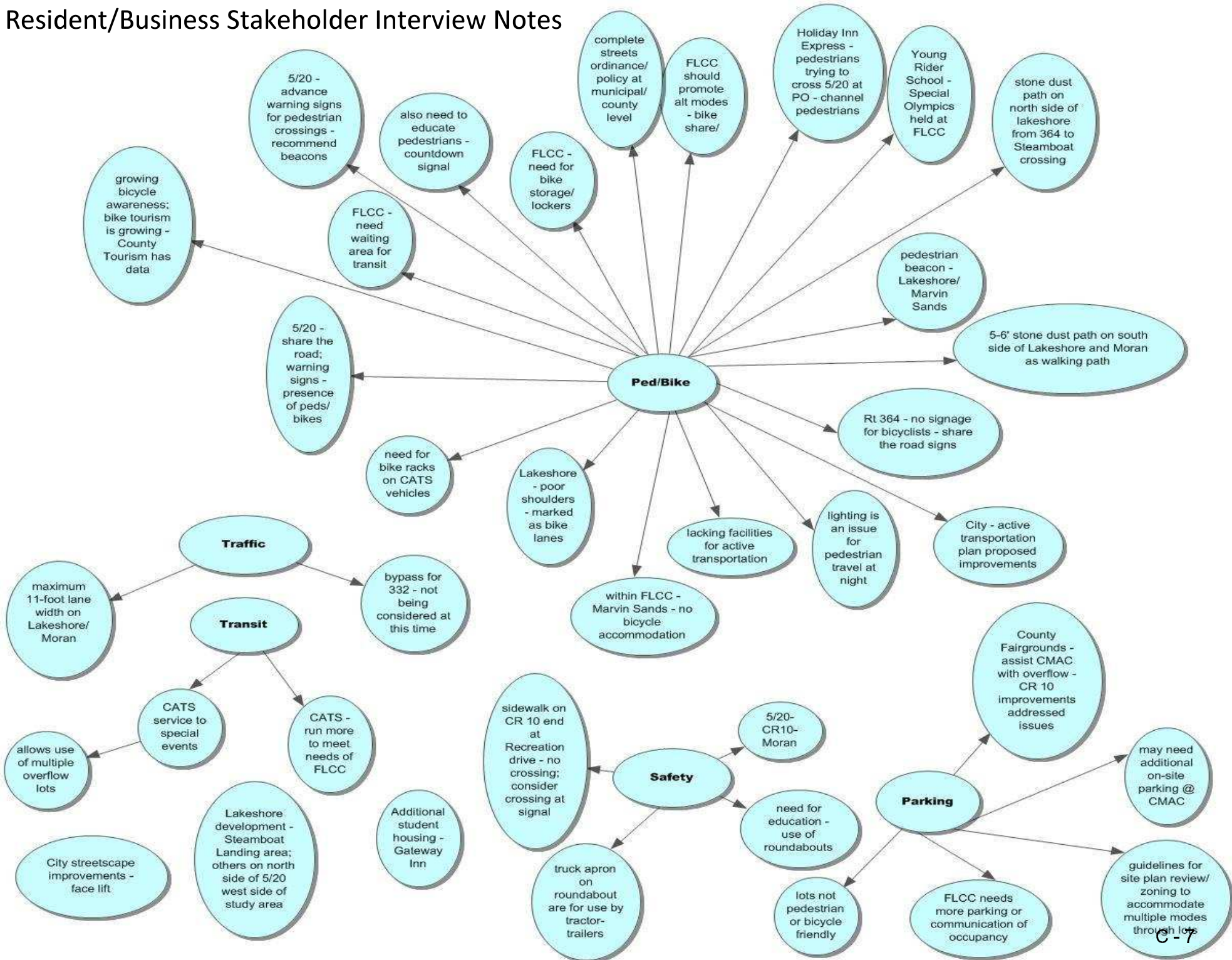
CMAC/FLCC Stakeholder Interview Notes



Law Enforcement/Emergency Responder Stakeholder Interview Notes



Resident/Business Stakeholder Interview Notes





Appendix D:

FLCC Survey

Finger Lakes Community College is partnering with Ontario County to improve safety and accessibility for pedestrians, bicyclists, and motorists in the area around FLCC. Please complete this survey to help document commuting patterns and identify needed improvements. Your answers are completely confidential. Thank you for your participation.

1. In what town do you live?

Employee Survey

2. What zip code?

3. On a typical weekday, what time do you usually arrive to work?

- ☐ Before 6:30 am
- ☐ 6:30-7:00 am
- ☐ 7:00-7:30 am
- ☐ 7:30-8:00 am
- ☐ 8:00-8:30 am
- ☐ 8:30-9:00 am
- ☐ 9:00-9:30 am
- ☐ After 9:30 am

4. On a typical weekday, what time do you usually leave work?

- ☐ Before 4:00 pm
- ☐ 4:00-4:30 pm
- ☐ 4:30-5:00 pm
- ☐ 5:00-5:30 pm
- ☐ 5:30-6:00 pm
- ☐ 6:30-7:00 pm
- ☐ After 7:00 pm

5. How often do you vary your arrival and departure hours by more than 30 minutes from the times identified in the above questions?

- ☐ Never
- ☐ 1-2 days per week
- ☐ 3 or more days per week
- ☐ 1-2 times per month

6. How many days a week do you typically come to campus?

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5
- ☐ 6
- ☐ 7

7. Please indicate how you commuted to work each day over the last week.

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Drove alone the entire way	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Drove alone, then took public transportation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Took public transportation the entire way	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shared ride then took public transportation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rode in 2-person carpool	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rode in 3-person carpool	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rode in vanpool	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dropped off	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bicycled	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Walked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Taxi	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Telecommuted (worked at home)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Out of office/day off	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify)	<div></div>						

8. How many minutes, on average, does it take you to commute to work (door to door, one-way)?

- ☐ Less than 10 minutes
- ☐ 11-20 minutes
- ☐ 21-30 minutes
- ☐ 31-45 minutes
- ☐ More than 45 minutes

9. How many miles, on average, do you travel from home to work (one-way)?

- ☐ Less than one mile
- ☐ 2-5 miles
- ☐ 6-10 miles
- ☐ 11-20 miles

10. How often do you travel to/from campus more than once a day?

- ☐ Always (every day)
- ☐ Frequently (1+ times/week)
- ☐ Occasionally (1-4 times/month)
- ☐ Never

11. For what reasons do you travel to/from campus during the day? (check all that apply)

- ☐ To/from home
- ☐ To/from errands
- ☐ To/from retail establishments
- ☐ To/from restaurants/cafes

Other (please specify)

12. When you travel to/from campus during the day, how do you typically travel?

- ☐ Personal vehicle/motorcycle
- ☐ Carpool
- ☐ Dropped off
- ☐ Public transportation
- ☐ Bicycle
- ☐ Walk

13. How satisfied are you with your commute?

- ☐ Very satisfied
- ☐ Satisfied
- ☐ Somewhat satisfied
- ☐ Somewhat dissatisfied
- ☐ Dissatisfied

If dissatisfied, explain why.

14. If you drive alone, what are your reasons? Select all that apply.

- ☐ Enjoy my privacy, prefer to drive alone
- ☐ Hours are irregular
- ☐ Need car for work
- ☐ Need car for errands before/after work
- ☐ Difficult finding others to carpool
- ☐ Driving alone takes less time
- ☐ Take children to school or daycare
- ☐ Unaware of public transportation modes
- ☐ Public transit schedules/routes do not work for me
- ☐ Public transit costs too much
- ☐ Public transit is unsafe
- ☐ Need car in case of emergencies
- ☐ Do not have another option

Other (please specify)

15. Why have you chosen your current commute method to work?

- ☐ Convenience
- ☐ Cost/value
- ☐ Length of trip
- ☐ Environment-air quality
- ☐ Safety
- ☐ No other option

Other (please specify)

16. What concerns you about your current commute method to campus?

- ☐ Overall travel time from home to work
- ☐ Cost of commute, including gas prices
- ☐ Impacts on the environment
- ☐ Finding a convenient parking space
- ☐ Congestion on streets and highways
- ☐ Frustration of commuting
- ☐ No concerns

Other (please specify)

17. How likely would you be to change to carpooling, transit, or other commuting alternatives if the following incentives or services were available?

	Very Likely	Somewhat Likely	Not Likely
Discount on public transit pass	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sale of public transit bus passes on campus or through mail	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
On-site information of public transit route and schedules	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improved public transit routes and schedules	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Flexible hours to accommodate public transit schedule	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Free guaranteed ride home in case of emergencies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Provision of on-site services, including enhanced dining, increased daycare, dry cleaning, and banking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Preferential or reserved parking for commuters who carpool	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Assistance finding a carpool match	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Car made available for commuters use during the day	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Flexible hours to accommodate carpool schedule	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Established bike routes or lanes on streets	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cash rewards or gift certificates for commuters who walk or bicycle to campus	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Secure, convenient bicycle racks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Secure, weather protected bicycle storage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bicycle route and parking maps	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Shower and locker facilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

18. Please rank, in order of preference, the commute options you would consider instead of driving alone.

	1	2	3	Would Not Consider
Carpool	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Transit	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Walk/bike	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

19. Please indicate any safety or security concerns associated with access to and from campus.

20. What is your overall perception of the transportation system (roads, sidewalks, trails, transit, etc.) near FLCC?

21. Additional comments:

Finger Lakes Community College is partnering with Ontario County to improve safety and accessibility for pedestrians, bicyclists, and motorists in the area around FLCC. Please complete this survey to help document commuting patterns and identify needed improvements. Your answers are completely confidential. Thank you for your participation.

1. Where do you live?

Student Survey

- ☐ On campus—Finger Lakes College Suites
- ☐ Off campus—Rental property within one mile of campus
- ☐ Off campus—Rental property farther than one mile from campus
- ☐ Off campus—Home (permanent residence) within one mile of campus
- ☐ Off campus—Home (permanent residence) farther than one mile from campus

Other (please specify)

2. If you live farther than one mile from FLCC, please specify your zip code.

3. On a typical day, what time do you usually arrive on campus?

- ☐ Before 6:30 am
- ☐ 6:30-7:00 am
- ☐ 7:00-7:30 am
- ☐ 7:30-8:00 am
- ☐ 8:00-8:30 am
- ☐ 8:30-9:00 am
- ☐ 9:00-9:30 am
- ☐ After 9:30 am

4. On a typical day, what time do you usually leave campus?

- ☐ Before 4:00 pm
- ☐ 4:00-4:30 pm
- ☐ 4:30-5:00 pm
- ☐ 5:00-5:30 pm
- ☐ 5:30-6:00 pm
- ☐ 6:00-6:30 pm
- ☐ 6:30-7:00 pm
- ☐ After 7:00 pm

5. How often do you vary your arrival and departure hours by more than 30 minutes from the times identified in the above questions?

- ☐ Never
- ☐ 1-2 days per week
- ☐ 3 or more days per week
- ☐ 1-2 times per month

6. How many days a week do you typically come to campus?

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5
- ☐ 6
- ☐ 7

7. Please indicate how you commuted to campus each day over the last week.

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Drove alone the entire way	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Drove alone, then took public transportation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Took public transportation the entire way	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shared ride then took public transportation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rode in 2-person carpool	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rode in 3-person carpool	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rode in vanpool	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dropped off	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bicycled	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Walked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Taxi	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Other (please specify)

8. How many minutes, on average, does it take you to commute to campus (door to door, one-way)?

- ☐ Less than 10 minutes
- ☐ 11-20 minutes
- ☐ 21-30 minutes
- ☐ 31-45 minutes
- ☐ More than 45 minutes

9. How many miles, on average, do you travel from home to campus (one-way)?

- ☐ Less than one mile
- ☐ 2-5 miles
- ☐ 6-10 miles
- ☐ 11-20 miles
- ☐ More than 20 miles

10. How often do you travel to/from campus more than once a day?

- ☐ Always (every day)
- ☐ Frequently (1+ times/week)
- ☐ Occasionally (1-4 times/month)
- ☐ Never

11. For what reasons do you travel to/from campus during the day? (check all that apply)

- ☐ To/from home
- ☐ To/from errands
- ☐ To/from retail establishments
- ☐ To/from restaurants/cafes

Other (please specify)

12. When you travel to/from campus during the day, how do you typically travel?

- ☐ Personal vehicle/motorcycle
- ☐ Carpool
- ☐ Dropped off
- ☐ Public transportation
- ☐ Bicycle
- ☐ Walk

13. How satisfied are you with your commute?

- ☐ Very satisfied
- ☐ Satisfied
- ☐ Somewhat satisfied
- ☐ Somewhat dissatisfied
- ☐ Dissatisfied

If dissatisfied, explain why.

14. If you drive alone, what are your reasons? Select all that apply.

- ☐ Enjoy my privacy, prefer to drive alone
- ☐ Hours are irregular
- ☐ Need car for work
- ☐ Need car for errands before/after class
- ☐ Difficult finding others to carpool
- ☐ Driving alone takes less time
- ☐ Take children to school or daycare
- ☐ Unaware of public transportation modes
- ☐ Public transit schedules/routes do not work for me
- ☐ Public transit costs too much
- ☐ Public transit is unsafe
- ☐ Need car in case of emergencies
- ☐ Do not have another option

Other (please specify)

15. Why have you chosen your current commute method to campus?

- ☐ Convenience
- ☐ Cost/value
- ☐ Length of trip
- ☐ Environment-air quality
- ☐ Safety
- ☐ No other option

Other (please specify)

16. What concerns you about your current commute method to campus?

- ☐ Overall travel time from home to campus
- ☐ Cost of commute, including gas prices
- ☐ Impacts on the environment
- ☐ Finding a convenient parking space
- ☐ Congestion on streets and highways
- ☐ Frustration of commuting
- ☐ No concerns

Other (please specify)

17. How likely would you be to change to carpooling, transit, or other commuting alternatives if the following incentives or services were available?

	Very Likely	Somewhat Likely	Not Likely
Discount on public transit pass	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sale of public transit bus passes on campus or through mail	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
On-site information of public transit route and schedules	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improved public transit routes and schedules	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Flexible hours to accommodate public transit schedule	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Free guaranteed ride home in case of emergencies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Provision of on-site services, including enhanced dining, increased daycare, dry cleaning, and banking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Preferential or reserved parking for commuters who carpool	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Assistance finding a carpool match	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Car made available for commuters use during the day	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Flexible hours to accommodate carpool schedule	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Established bike routes or lanes on streets	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cash rewards or gift certificates for commuters who walk or bicycle to campus	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Secure, convenient bicycle racks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Secure, weather protected bicycle storage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bicycle route and parking maps	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Shower and locker facilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

18. Please rank, in order of preference, the commute options you would consider instead of driving alone.

	1	2	3	Would Not Consider
Carpool	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Transit	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Walk/bike	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

19. If you walk/bike to campus, please describe your route. You do not need to specify address, just general location of starting point. For example, name of apartment complex, west end of Lakshore Drive, etc.

20. Please indicate any safety or security concerns associated with access to and from campus.

21. What is your overall perception of the transportation system (roads, sidewalks, trails, transit, etc.) near FLCC?

22. Additional comments:

FLCC Surveys:

- Both surveys opened October 22 – February 27: originally closed in November, but due to lack of responses (especially from students, surveys remained open after public meeting)
- Surveys were advertised by FLCC through email notifications as well as promoted during public meeting held at FLCC student center

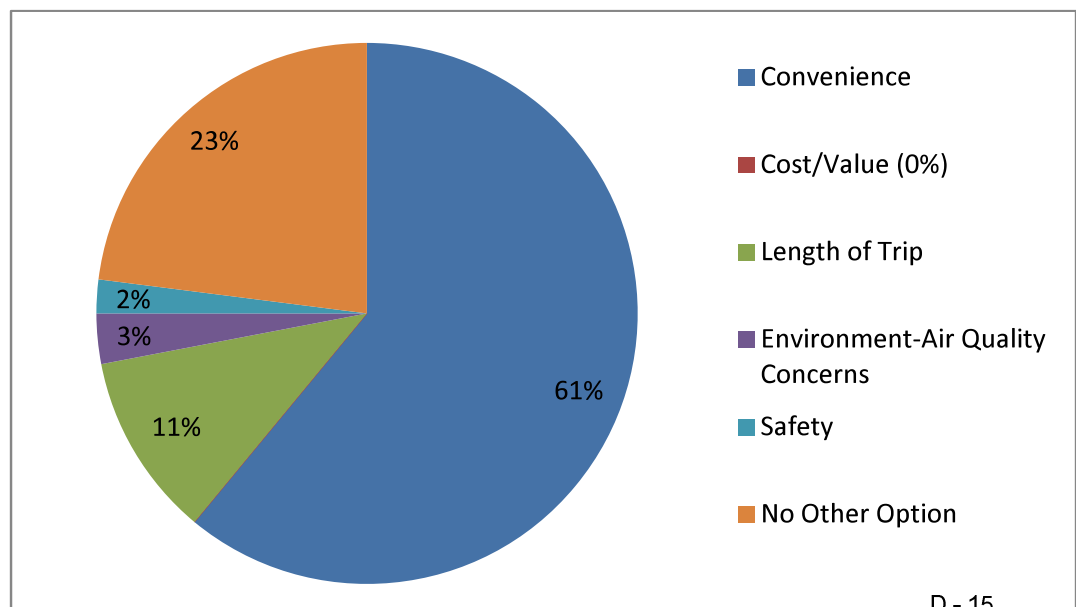


FingerLakes
COMMUNITY COLLEGE

Transportation Safety Study

FLCC Employee Survey:

- 64 responses (all before public meeting) which represents an approximate 20% response rate (300 full time employees)
- 32% of respondents live in Canandaigua
- 29% arrive between 8 – 8:30am (47% arrive between 8 – 9 am)
- 31% leave between 4 – 4:30pm (53% leave before 4:30pm)
- Mode Share
 - 93% drove alone (56 respondents)
 - 1 respondent biked to work everyday
 - 3-4 people carpooled to work
 - No one used public transit or walked
- Top reasons for driving alone:
 1. Need car for errands before/after work
 2. Hours are irregular
 3. Enjoy my privacy/prefer to drive alone
 4. Difficult finding others to carpool with
 5. Driving alone takes less time
 6. Public transit schedules/routes don't work
- Why they chose their commute method



- Top 3 incentives/services needed to change commute method (most respondents not likely to change):
 1. Improved transit routes/schedules
 2. Guaranteed ride home
 3. Flexible hours to accommodate transit schedules
- Top 3 incentives noted associated with transit but carpooling was most likely to be considered other than driving alone
- Summary of detailed responses (safety):
 - Students walking in roadways – RT 364, Lake Shore Dr, Moran Rd
 - Students not using crosswalks
 - No bike lanes/markings
 - Morning glare affects view of pedestrians
 - Lack of pedestrian lighting
 - Crosswalk on Lake Shore Dr @ Marvin Sands Dr
 - Conflicts with vehicles turning to and from campus – congestion and obstructed view
 - CATS drivers are unsafe
 - On campus
 - Not enough Blue Emergency lights/more security
 - Too many conflict points near main entrance
 - D lot is isolated - unsafe
- Summary of detailed responses (overall transportation system perceptions):
 - Congestion on Main St in Canandaigua
 - Need traffic signal @ Lake Shore Dr & Marvin Sands Dr – poor visibility and conflicts with pedestrians
 - Need sidewalks – Lake Shore Dr especially & RTS 5/20 to get to retail & service establishments
 - Need better pedestrian lighting
 - Need bike lanes & signage
 - Need improved/more reliable transit schedules and routes
 - Need more or easily available information on transit
 - Need connection to Main St in Canandaigua – too far to walk
 - Need transportation between other campuses (Victor, Geneva & Newark)

FLCC Student Survey:

- 6 responses – with such a low response rate, answers will not be indicative of population characteristics
- 3 students drove alone every day, 1 carpooled and 2 walked
- 3 students concerned with cost of commute/gas prices
- Noted interest in carpool matching, improved transit services, secure bike storage, more on-site services to eliminate need to leave campus for errands, guaranteed ride home program
- Carpooling most likely to be considered other than driving alone
- Summary of detailed responses:
 - no lighting, no sidewalks close to campus to safely get to walmart and banks
 - Horrible. as a commuter, I can never see students walking on the side of the road, the entrance/exit intersection to the main school drive is a cluster and aggravating, I think it needs a light. I'd use the CATS bus but its more of a pain to figure out than its worth plus I feel students should get a discount.
 - I used to live at the suites and walked everywhere before i had my car. there are NO street lights to walmart or even lake shore let alone sidewalks, i have no idea how to get information on the cats bus and their website is a disaster. Main street is amazing but way too far to walk. I feel if students felt safer they would go out to the resturants and stores canandaigua has to offer
 - Needs more parking in either A lot or expand D lot and make it for teachers and students

Please indicate any safety or security concerns associated with access to and from campus.

1	Open-Ended Response
2	As you exit the campus from A-Lot and Lakeshore Drive, there is no pedestrian cross-walk from the college drive to the public road. This is of serious concern to me as the number of students residing at the college continues to increase, they deserve a safe place to cross the road.
3	
4	None
5	I enter the college from the East Lake Road entrance. I find the number of people walking in the road to be a safety concern. I find the number and location of "blue light" emergency phones to be inadequate. The location of the blue lights is sparse in all the parking lots. If someone were injured in the far corner of any parking lot, it would be several minutes until the person would be able to reach the emergency phone. Leaving campus after 6 PM is worrisome for this reason.
6	
7	
8	College traffic, thru-traffic, foot and skate-board traffic converging at minimally-regulated main entrance. Also, vehicles turning left into College Suites cross the main road on a curve.
9	Students walking on the shoulder of the road along the roadway to the main entrance under poor lighting conditions makes me concerned about the possibility of accidents involving pedestrians.
	Bike lanes are non-existent apart from a section on main street and then they're not clearly marked as such. Generally, drivers respect these lanes when a cyclist is present. Lakeshore Drive, even though its 25 mph along Kershaw Park, can be challenging if drivers are impatient with a cyclist traveling at less than 30 mph. The parking bump outs near Kershaw Park, limit the roadway to one lane can be hazardous as cars attempt to squeeze along-side a cyclist. Additional road markings and signs that indicate established cycling routes would help raise drivers awareness of cyclists on the roadways. Traffic lights for cyclists with buttons similar to those for pedestrian crossings would improve the safety of cyclists as they attempt to cross busy roadways (5 & 20). Such signage and lights would also give drivers a better understanding that cyclists do follow the rules of the road as well.
10	
11	
12	
13	
14	
15	
16	
17	
18	I live in the country and don't see these types of vehicles come down our way. 5 & 20 is almost 4 miles that is a little far to walk and wait for transportation. then hoping to make it on time to work. Same thing for way home. Then picking up children from what is ever going on with them for activities. They are young. would not allow them to ride a bus / transit by themself.
19	
20	
21	Hate the new roundabouts, but getting use to them. Wish people knew how to navigate them though. Still confusion with a lot of drivers as to how they work.
	I teach one of the Walk Jog classes held here at FLCC, and the there are NO SIDEWALKS on either side of Lakeshore Drive. This is a high pedestrian area, and they are forced to walk on the edges of the road. In the morning, the traffic approaching campus from the west is blinded by the sun, which puts pedestrians in more danger. There needs to be sidewalks on at least one side of Lakeshore Drive between RT 364 and campus!!!
22	
23	
24	Crossing 5&20 on a bike can be a bit daunting.
25	
26	I am a bit concerned about the robberies taking place in our parking lots.
27	there have been more robberies lately
28	
29	
30	
	The public transit system that is available currently (CATS) has some VERY unsafe drivers. I have seen some of the buses make bad decisions while on the road. Would not trust them to drive me. Also the stops are not convenient.
31	
32	The other aggressive drivers on the road, which have increased dramatically in teh past year.
33	Lack of sidewalks from Schooners to campus. Difficult crossing from Schooners to Valero.
34	
35	None
36	pedestrian activity, signs, poles blocking view near entrance to campus
37	
38	lack of sidewalks on Lakeshore Drive - a safety concern.
39	Parking lot D is very isolated - I feel unsafe leaving when it's dark. Even more so, when I leave after a late class.
40	Crossing the road from the main campus to the honors house is hard for someone with a visual disability.
41	concerns about students not using sidewalks and crosswalks. Someone is going to get hit.
	Lack of sidewalks on Lakeshore Dr, Moran/Cnty Road 10 is an issue that should be addressed. Students walking in roads to/from apartments are very common. There should be some better form of pedestrian crossing on 5/20. I have observed on many occasions groups of people running to median and waiting for traffic to clear. How about a pedestrian walkway/bridge?
42	
43	The area near A lot just before the handicapped section. With students going thru there, I'm worried that someone is going to be distracted and walk right into a car.
44	Long commute, chance of breakdown more likely farther away from home, driving on fast highways, speed limits on roads too inconsistent
45	I would ride my bike more often if there was weatherproof bike storage.
46	
47	none
	Issues finding a parking space. Working on campus, I find it hard to find a parking space and get to work on time. Parking lot aisles are overcrowded and pedestrians do not consider drivers while walking to and from cars.
48	
49	
	Sometimes I worry that I might hit a deer when I leave for work very early or stay very late, because then I am traveling for 30 mins each way at a peak time of day for wildlife, and I am primarily on country roads.
50	
51	There is not space to ride on Lakeshore and 5 & 20 it too dangers. It is illegal to use the sidewalks and there are too many people out walking down the lakeshore in the AM.
	Need more sidewalks and ways for students to get to campus safely; feel that it is unsafe for pedestrians near campus. Too much traffic and not enough safe transportation routes for bikers and walkers...
52	
	Sidewalk plan needs changes based on actual student traffic; particularly between parking areas & school.. Students are often walking in the road because the sidewalk route is inconvenient; moreso in the winter. There is no sidewalk connecting the D-lot to the main building. Current design of A-lot entrances on Laker Lane creates traffic back-ups & greater accident potential.
53	
54	At busy times, it can be difficult to enter campus from the east.
	Students turning into A lot right after turning in from the main road creates a hazard because the entrance to A lot is so close and requires such a quick turn. Also hazardous is the curve in the road by the road to the dorms. The curve blocks visibility and drivers turning left on to the road to the dorm often cannot see drivers coming around the curve, nor can drivers coming from the upper lot see drivers making that left turn toward the dorms. The new cross walk to Honor's House is a nightmare if you're turning left into campus from Lakeshore Drive or if you're trying to turn right onto Lakeshore Drive from campus. The crosswalk is poorly placed.
55	
56	
	students need parking available in D lot as many classes are on 3/4 floors as well as Ontario Building. having them park in A/G lots leaves them walking/skatboarding in the road where they do not always pay attention to what is going on around them and there are safety issues with them walking from late afternoon/evening classes all the way to g lot
57	
58	
59	
60	My concerns are that there is no walkway up the hill to D lot. Students often cross the street from the driveway of the day care center rather than the crosswalk on the corner.
	Crosswalk to the Honors House is VERY DANGEROUS! Located too close to the cars turning in and out of campus. Creates congestion with cars stopping to let students cross with cars attempting to turn into campus or exit campus.
61	
	Two major safety concerns: During the lunch half hour (12:00-12:30) we are in the cafeteria, watching out the window. The number of vehicles that RUN the stop sign next to the Conservation Barn is unbelievable. Very few vehicles bother to stop or to even slow down. The College could make a fortune by ticketing these drivers. Also, where the stop sign is (coming out onto the campus drive from the dorm area), there is no crosswalk. One is badly needed there. Students often just walk out in front of vehicles - that have the right-a-way (as there is no crosswalk). Students just assume that every vehicle "has" to stop for them; not true. There is going to be a fatality there one of these days. The crosswalk would help, I believe.
62	
	Students attempting to cross Lakeshore Drive on cross walk to go to Campus Gate and/or Honors House have to be very careful, because cars don't stop when they are on the cross walk.
63	There are no sidewalks on Lakeshore Drive, and students frequently are walking along the road, both during the day and at night.

What is your overall perception of the transportation system (roads, sidewalks, trails, transit, etc.) near FLCC?

1	The roads seem fine, except that the traffic coming in through Main St. can slow down my arrival time
2	Students need sidewalks along Lakeshore Dr. and Moran Road
3	Several areas of the sidewalk and lot D are in need of repair. One could easily trip and sustain an injury
4	
5	
6	Pros - appropriate speed limits, well-lit, well-marked. Cons - almost every approach requires at least one left turn across traffic
7	Sidewalks from West Lake Road all the way to Routs 5 & 20 would be great for the numerous students living in this area and walking to campus as well as walking to shop on the other side of 5 & 20. The bus schedule is also not adequate for student commuting. I recently had a student who is riding the bus from Newark tell me that she is spending 5 hours each day riding to and from her home in Newark to Main Campus.
8	As a cyclist, roadways are generally in good shape. Very few road hazards exist, apart from the occasional crumbling shoulder and/or loose gravel that develops. As noted above, additional lane markings, signs and lights that indicate cycling routes / crossings would be helpful. Additionally, sidewalks up and down Lakeshore Drive would create a walkable community and change the complexion of Lakeshore Drive east of Rte. 364
9	
10	
11	
12	I think they are good. The sidewalks are wide, the roads and sidewalks are well-lit
13	Sufficient
14	
15	Fair
16	I think it is a good thing for the students. but I have heard some of the students report they don't know when and where to be ready for pick up and also the cost.
17	The parking lot is far away from the door if you are handicapped. The walkways are not the shortest distanct to the parkinglot
18	
19	I feel that it is adequate for now, however, with constant growth could be a problem with only having one entrance and exit to Lakeshore Dr.. (Can use Marvin Sands Drive to E. Lake Road, but would be nice if there was an "exit" from the rear parking area to E. Lake Road)
20	There needs to be a pedestrian walk way OVER the roadway in A Lot. Otherwise, cars should be routed around the area where the students cross from the parking lot to the main building!
21	
22	Pretty well maintained.
23	
24	I think sidewalks along Lakeshore would be a good idea as many student walk along the road. I'd love to see direct routes from Farmington to FLCC--even a park and ride.
25	on 5 and 20 there is a lot of foot traffic and no real walkway along road. Students from across the street tend to cross everywhere, not just at crosswalk.
26	
27	
28	
29	I would LOVE to have a nice, safe, convenient public transit system in our area. I think because the current system isn't any of these qualities, people don't use it.
30	Ok.
31	The area is not 'pedestrian friendly.'
32	transit schedule not reliable
33	Generally good. The transit can be unreliable.
34	good
35	Sidewalks should be put in on Lakeshore Drive around campus. It seems very dangerous to have pedestrians walking on the side of the road there. I have also walked down Lakeshore from the campus and it seems dangerous from a pedestrian perspective as well.
36	
37	Lakeshore Drive needs to have sidewalks on both sides from the light at Rt 5& 20 to the light at East Lake Drive
38	good. surfaces are flat and easy to traverse.
39	they are very well marked and laid out.
40	New sidewalks and traffic patterns with latest construction project are an improvement. Entrance to College Suites on curve of Laker Lane is dangerous with cars darting into/out of College Suites.
41	I see the CAT run to main campus and Newark campus.
42	Horrible. Roads are usually dug up, cratered, or under construction which adds time to an already lengthy commute, too many crosswalks on route 332; people just walk out and expect cars to stop.. this is not safe for anyone
43	I live in Fairport so the public transportation system is not an option for me
44	
45	fine
46	Okay...not enough sidewalks for local residents.
47	
48	The new crosswalk on Lakeshore is helping a lot. A traffic light would be even better. Some people don't use the crosswalk, and some cars inch up to turn onto Lakeshore, blocking the view of pedestrians for other cars. These problems are exaggerated in the first few weeks of each semester. The new traffic circles near the College are causing a lot of problems. People don't know how to use them. Sidewalks on both sides of Lakeshore would be very helpful in keeping pedestrians well off of the roads. During concerts, the sign for VIP Parking is placed too far into the intersection, and I've seen a lot of near misses with that sign and with pedestrians and other cars. Sometimes, the VIP Parking attendants give FLCC employees a hard time, even when it's hours before a show, and even though we have a legitimate reason for being on-campus. (But I don't know if this is still a problem because I haven't heard complaints from this past summer.)
49	Car friendly, but not pedestrian or bike friendly.
50	Need more sidewalks and trails for bikers/walkers near FLCC. Would like to see transportation between the Victor Campus, the Geneva Campus, and FLCC main campus. Better routes/accommodations for those who don't have a personal vehicle.
51	Roads are for the most part good. Not enough sidewalks.
52	Need to create a sidewalk on the far east side of A-lot to the existing sidewalk in front of the new Student Center (across form Fraley Lane?) Why is there a roped off area discouraging students to walk across grass to the sidewalk? Students walk around the roped off area or walk in the roadways.
53	The roads and entrances to and around A lot are hazardous and visibility is poor in some sections as noted above. Trails are fine. I have no knowledge of transit issues.
54	Very good roads and short distance to work. No problem with traffic congestion.
55	
56	Not pedestrian and bike friendly enough.
57	The two new traffic circles on county roads near campus are a terrific improvement. They help improve my commute greatly.
58	for the most part I think the pedestrian has been considered in the overall design
59	A second exit (perhaps right turn only) onto Lakeshore Drive would be very helpful to eliminate some congestion. Difficulty seeing around vehicles when trying to turn either left or right onto Lakeshore Drive.
60	Not terrific. There needs to be better monitoring of the cars that run stop signs; there are so many. The worst offender is the noontime UPS driver; he runs that stop sign going about 30 mph - every single day! I have witnessed students attempting to cross at the Conservatioin Barn crosswalk, and vehicles not stopping for them. Students have actually jumped back up onto the sidewalk, for fear of being hit. It's ridiculous.
61	Sidewalks need to be installed on Lakeshore Drive to facilitate students who walk to the campus from off-campus housing. Better lighting needs to be installed on Lakeshore Drive.

Additional Comments

1
2
3
4
5
6
7
8
9 Great idea to conduct the survey. Seeing something positive come from this would be even better. Looking forward to hearing more about next steps.
10
11
12
13 I live too far away to carpool and Wayne County and Ontario County public transportation aren't anywhere near my house
14
15 my commute is actually 25 miles. probably should add another option for how far is your commute like - >20 miles
16
17 if you made a faculty car available through out the day. there would have to be some major policy. for example, a limit of time of use. how many times car you use it. what happens if you run over in your appt. and someone can't use it that needs it for their appt. insurance cost.
18
19
20 In a fantasy world, would be nice to have a parking garage! :o)
21
22
23 Would love to see a left-turn lane going from Moran Dr. onto 5&20
24
25 I think the College should make telecommuting an option for employees whose job would allow them to do so at least one day per week. It saves on gas office space and increases productivity, job satisfaction and loyalty.
26 You asked us to rank walk/bike but that doesn't happen if you're 20 miles away - didn't want to rank that at all
27
28
29
30
31 The driving on campus is bad!!! Students and employee drivers regularly ignore stop signs, drive far too fast and don't stop for pedestrians
32 During the months of limited daylight, students frequently walk along Lakeshore Drive in the dark. This is highly dangerous. They don't necessarily dress to be seen by drivers; and on more than one occasion, I've seen near accidents. Sidewalks must be installed!
33 glad that this is being looked in to!
34
35
36 I think working from home occasionally should be an option for those whose job descriptions don't require them to be on campus every day. This would help save on gas money for most people.
37
38
39 Need for a bus shuttle from the Newark Campus to Canandaigua.
40
41 More security is needed to monitor the various walkways, paths and parking lots on campus. There needs to be some form of inforcement and evaluation of the amount of drivers texting and distracted driving. It is very common to see cars leaving the parking lots with the majority of drivers looking down at phones/handheld devices or talking on mobile phones.
42
43 A revamp of the speed limits in some areas would be beneficial, ways other than a straight shot down 332 from the thruway all the way to Canandaigua would help commute time, perhaps another exit on the thruway closer to campus or another expressway from I-90 exit 44 directly to the school or close by would cut time almost in half. Parking lots at FLCC are ridiculous. There's nowhere to park, A-lot is unsafe because people are running eachother over fighting for spots, too much room for error. After a long commute, this is the last thing I need to deal with. Perhaps spots specifically designed for commuters closer to the school would help. I've also always thought that where student housing is, is where the "G" lot should be and the housing should be in the G-lot area.
44
45
46 Question #9 is poorly written. An option for more than 20 miles is needed
47
48
49 I really wish that the College would reconsider telecommuting and working from other FLCC locations, for employees whose jobs and daily workload are not impacted in any way by them not being on-campus. Faculty grade papers off-campus, which is part of their job. Adjuncts do almost all of their job (except the teaching part) off-campus. Online instructors are off-campus. It seems like other employees (not just faculty) could be recognized as having a job that can be done all or partially off-site. I am one of the employees who would not have to come to FLCC to do my job, but we've been told that we cannot work from home anymore. If I could have a Wayne County Campus Center office (instead of main campus) or if I could work from home a few days a week, I would be very happy because I could save on gas and car maintenance, and I'd have another 1/2 hr of free time in the morning. Also, if I worked from home, the college wouldn't be paying for the electricity to run my computer and office, and my FLCC computer would need maintenance and replacement less frequently since I'd be using my own equipment to do my job from home. It seems to make sense, and I think it would be a win-win. I wish that the college would reconsider their position on this topic for employees who can work from home. I feel like the college has a misperception about how some of us work.
50 Please add bike lanes!
51 Put safety first for pedestrians, especially students, near the FLCC campus.
52
53
54
55 Very often I will stop on my way home to run an errand. I do not have to go far to run an errand since all places I normally shop or go to are along the road take to get home. If I car pooled I would have to drive back from home to Canandaigua and that wouldn't work for me.
56 Should strongly consider utilizing paid parking spots in both main lots for both students and staff
57
58
59 once I move closer to FLCC - I would be interested in public transportation to save on the environmen
60
61



Appendix E:

Public Meeting Notes

General:

- Representative from Ontario ARC is interested in participating as a stakeholder
 - How can ARC improve service to and from FLCC?
 - Does it need to expand linkages with CATS?
 - Is there a need for better coordination with FLCC?

Pedestrian Concerns:

- Students cut behind (north of) Honors House and cut across RTS 5/20 to get to Walmart/Lowes – need to encourage use of crosswalk at intersections or discourage crossing elsewhere
- Students cut through child care lot, then parking Lot A to get from Lake Shore Dr to main campus building
- Snow plowing needs to be pushed farther out so pedestrians can walk on sidewalk instead of having to talk in travel lane – especially along Lake Shore
- Need sidewalks on Lake Shore especially between Marvin Sands (Honors House) and Moran
- Crossing Moran is very difficult – need sidewalks and marked crossing somewhere on Moran

FLCC Campus Concerns:

- Need a shuttle from Lot G to campus
- Lot G needs better security – more lighting (should be LED lighting) and should be left on for night students – an emergency blue light between Lot G and campus
- Need better bike security – bikes are getting stolen from existing bike rack
- From the Director of Housing at FLCC
 - Lack of lighting along RTS 5/20 east of Wegmans
 - Lack of speed enforcement on RTS 5/20
 - Lack of pedestrian warning signage
 - Doesn't get a lot of comments regarding CATS but what he does here is positive other than the fact that they can't cross county lines and FLCC has campuses in other counties

Vehicular Concerns:

- Need a signal at Marvin Sands and Lake Shore – making a left turn from Marvin Sands is very difficult

Attached:

- Boards
- Sign in sheet
- Comment forms
- Table materials

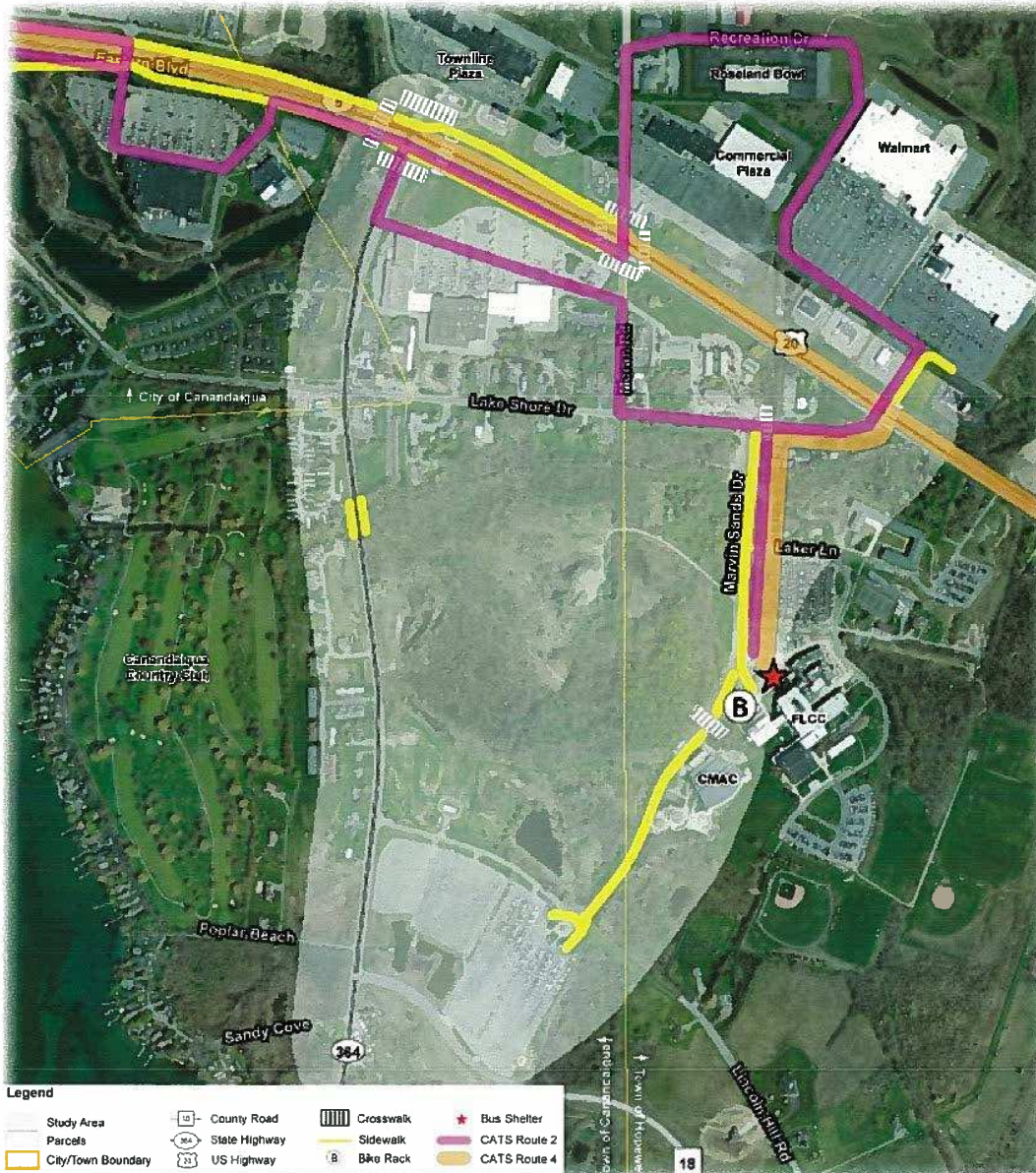


Welcome

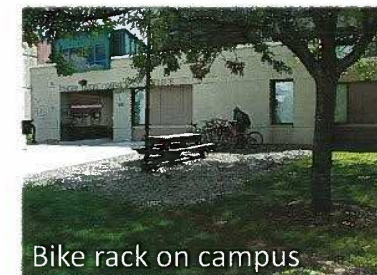
RTS 5/20 & 364 Multi-Modal Safety & Access Improvements Study Public Open House



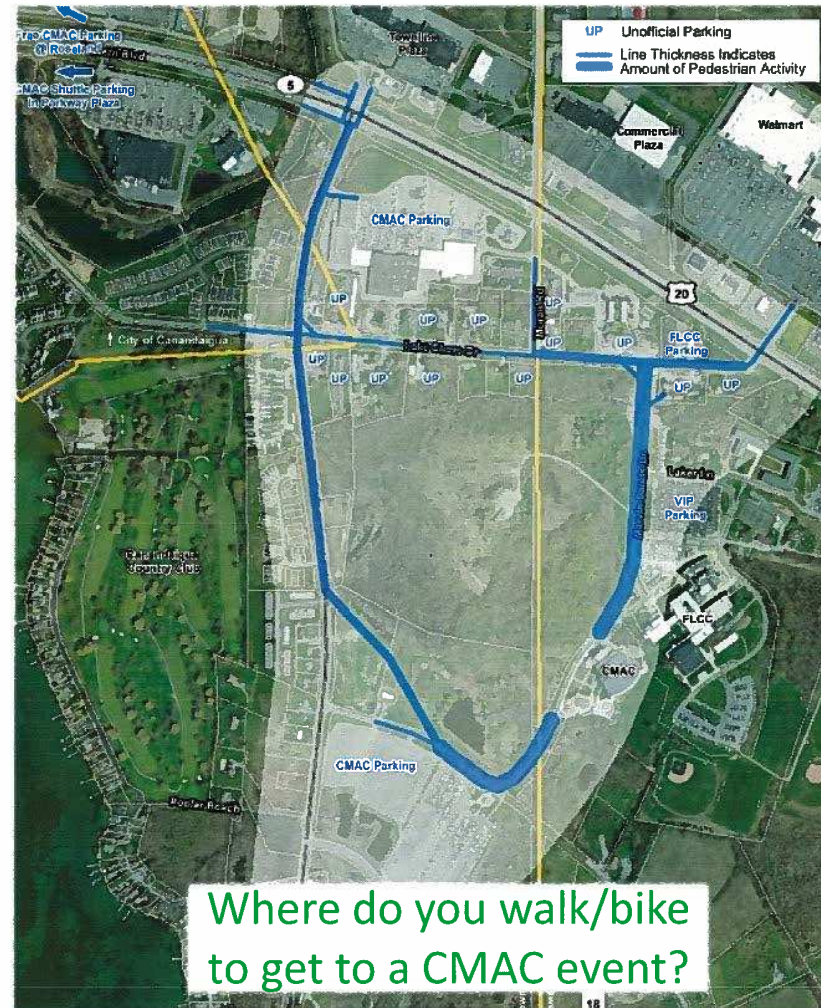
January 31, 2013
4:00 – 6:00 PM



Bicycle/Pedestrian/Transit Inventory



Observed Pedestrian Patterns



Tell us what you think...

Where are the areas of concern?

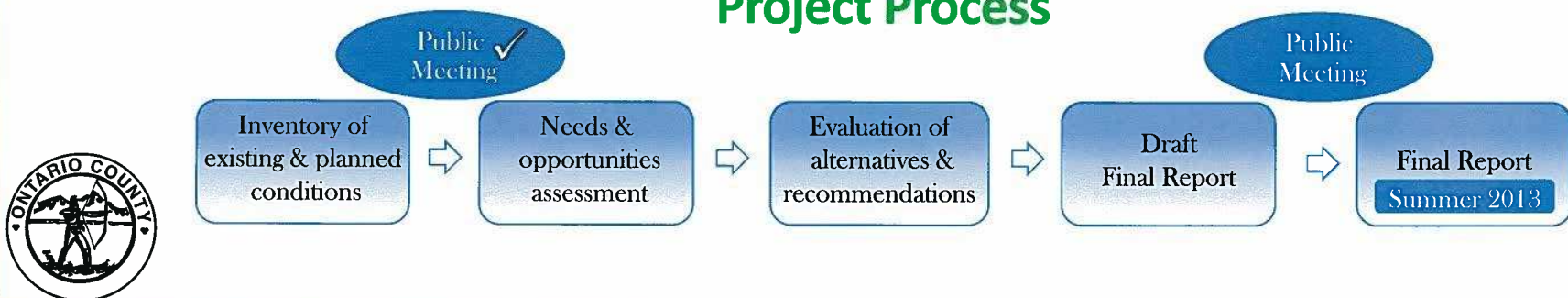
Where do you walk, bike, & drive?

What do you think is needed to make
the area safer?

What do you need to get around safely
& efficiently?

FLCC employee & student surveys Comment forms & maps

Project Process



Summary of Needs

Vehicular traffic needs:

- Signal head realignment at intersections of RTS 5/20 with CR 10 and RT 364
- Better lighting at intersections
- Signal at Lake Shore Dr & Marvin Sands Dr

Bicycle/Pedestrian needs:

- Sidewalks or wide shoulders along RTS 5/20, Lake Shore Dr, Moran Rd, RT 364, & west side of Marvin Sands Dr
- Bike lanes, wide shoulders or marking and signage to “share the road”
- More bike/pedestrian infrastructure (racks, lanes, shelters, etc)
- Pedestrian-level lighting
- More direct designated pathways with crosswalks to CMAC/FLCC
- Make parking lots more bike/pedestrian friendly

Transit needs:

- More direct, reliable transit routes to reduce travel time
- Make information on available services/routes easier to find and understand
- Need to address perceptions of safety and cleanliness
- Need bike racks on buses
- Need service between different FLCC campuses
- Need connection between Main Street and FLCC
- Provide more direct services to CMAC events

FLCC Campus needs:

- Have limited access to D lot – perceived as unsafe for pedestrians
- Not enough Blue Emergency lights/more security
- Too many conflict points near main entrance
- Need more bike/pedestrian infrastructure (racks, lanes, shelters, etc)

CMAC special event needs:

- Updated traffic management plans by event type
- Consider both auto and pedestrian traffic control
- Improve traffic flow & access to G-lot (bottleneck at G-lot access)
- Improve pedestrian environment & discourage use of private property as pathways
- Improve communications during events to improve traffic flow including way finding and notification of available parking



1" = 1000 ft
(When printed on 8.5" X 11")

Legend

- Study Area
- Parcels
- City/Town Boundary
- County Road
- State Highway
- US Highway

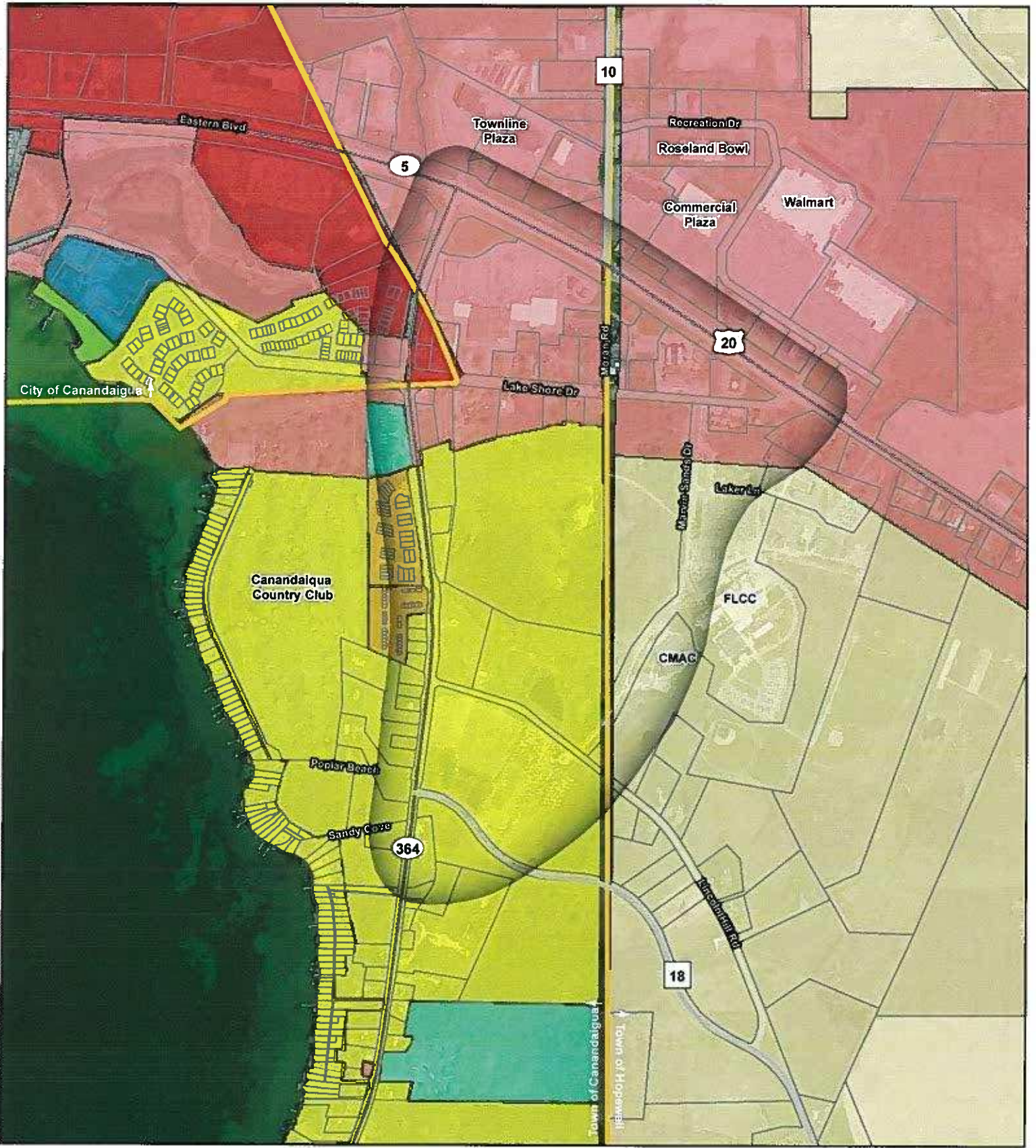


Study Area

Date: 12/12/2012
E 8



F:\Project\371 - ONTARIO COUNTY\371\009001 - RTIS 5-20-364 Multimodal Access Safety Study\Planning-study\CADD-GIS\GIS\Project\Zoning.mxd



1" = 1000 ft
(When printed on 8.5" X 11")

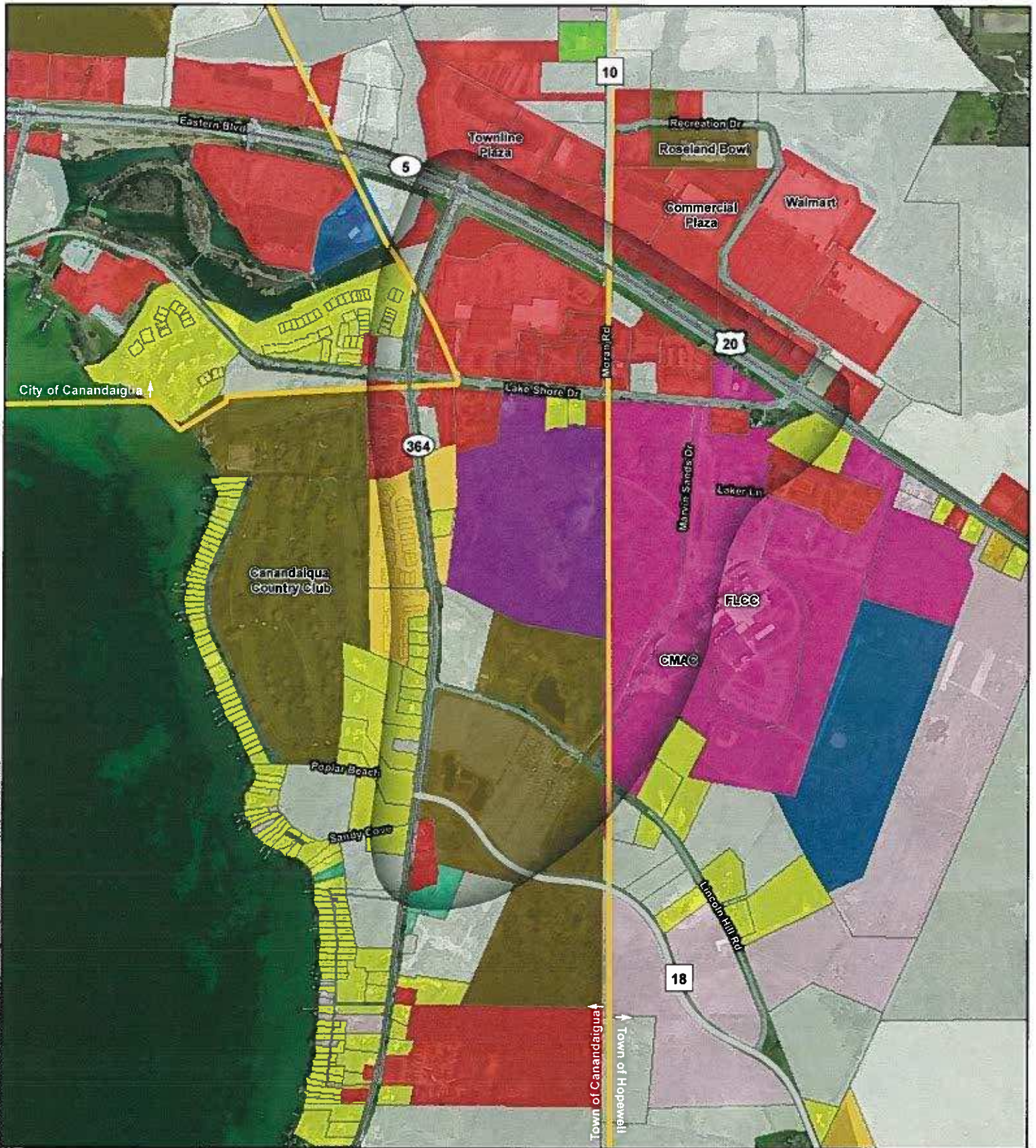
Legend

- | | | | |
|---------------|--------------------------------|---------------------------|-------------------------------|
| Study Area | Residential | Mobile Home | Parks and Recreation District |
| Town Boundary | Low/Medium Density Residential | Commercial | Planned Unit Development |
| Parcels | Multiple Residential | Heavy Commercial District | Study Area |



Zoning

Date: 12/10/2012 9:12 AM



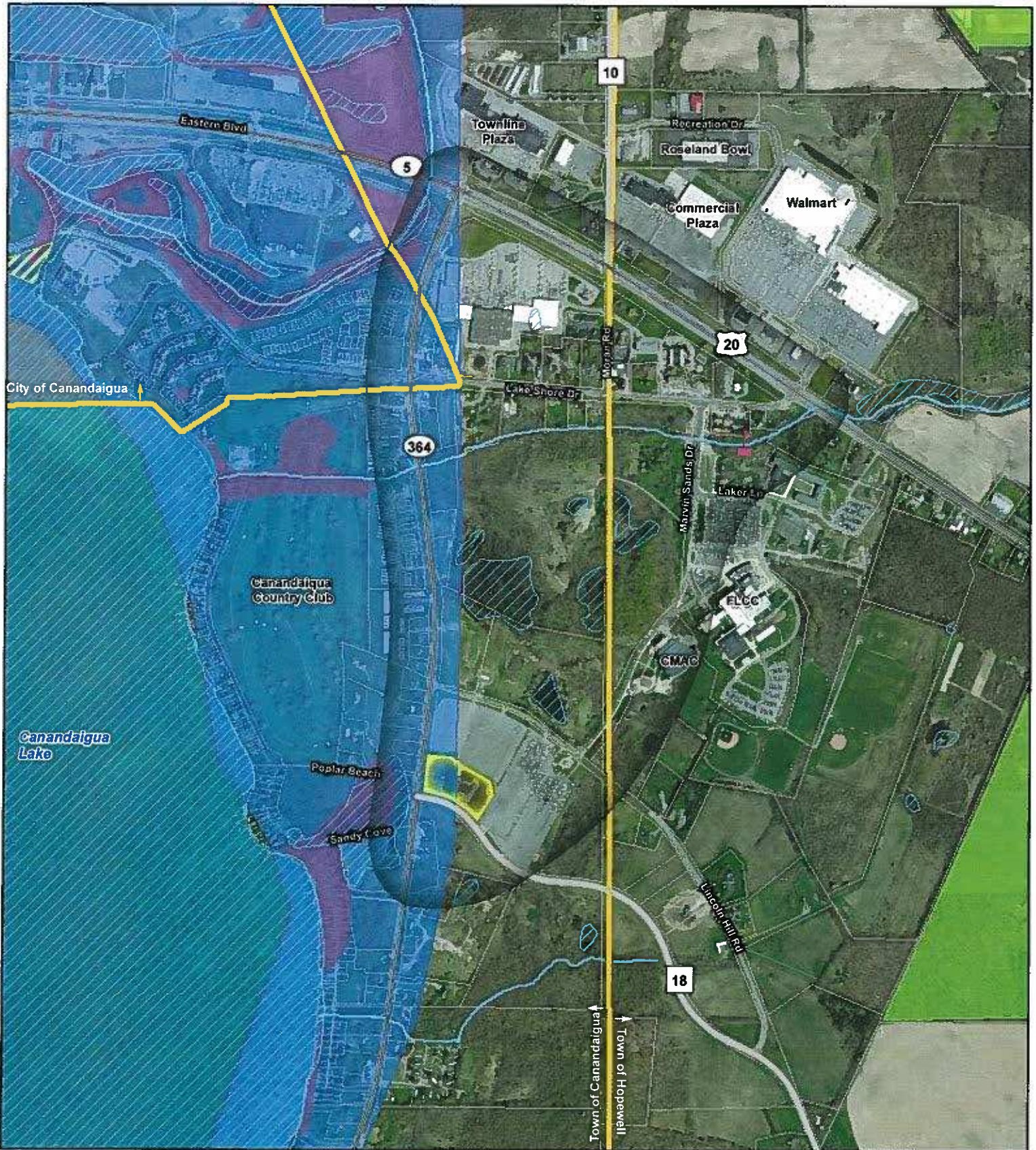
Legend

- | | | | | |
|---------------------------|--------------------------|---------------|-------------------------|--|
| Study Area | Multi Family Residential | Commercial | Public Service | Vacant (Residential/Commercial/Agricultural) |
| Town Boundary | Mobile Home | Agricultural | Colleges & Universities | Study Area |
| Single Family Residential | Other Residential | Entertainment | Government | |

Land Use

Date: 12/10/2010





Date: 12/12/2012

1" = 1000 ft
(When printed on 8.5" X 11")

0 500 1,000 2,000
Feet

Legend

- Study Area
- City/Town Boundary
- Parcels
- Floodplain (Zone-AE*)

- ✚ School
- Stream
- Waterbody
- Aquifer*

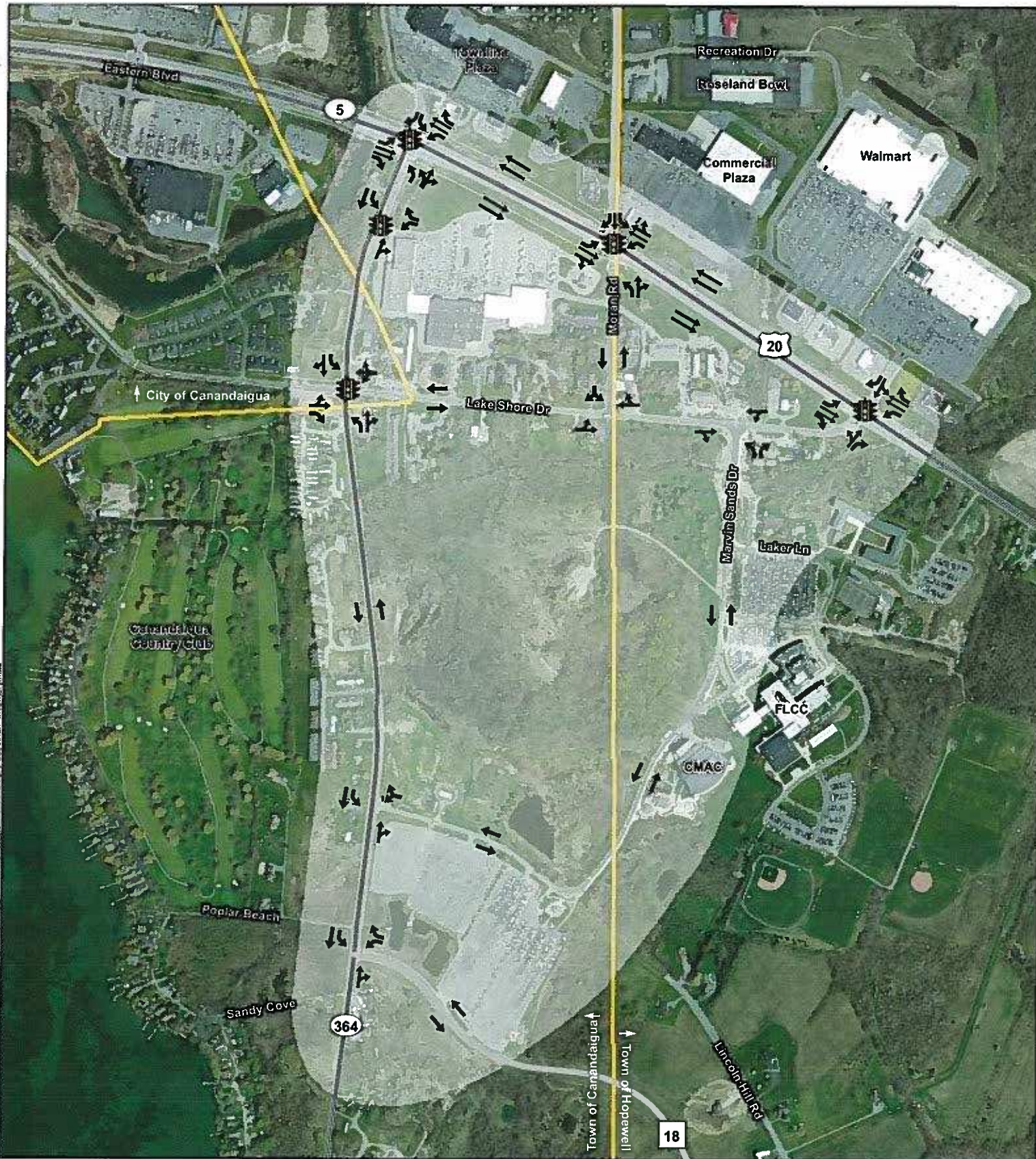
- Wetlands
- Agricultural District
- Recreation*
- Man Made Wetland

* The whole area shown on the map is delineated as 'Archeo Sensitive Area'

"Recreation area identified on this map is 'Kershaw Park'
Aquifer identified on this map is a 'Confined Aquifer'
AE - Area inundated by 100-year flooding, for which Base Flood
Elevations (BFEs) have been determined



Environmental Overview



Legend

- Study Area
- Parcels
- City/Town Boundary
- County Road
- State Highway
- US Highway

- Signalized Intersections
- Lane Configurations

0 375 750 1,500 Feet

1 inch = 750 feet
(When printed on 8.5" X 11")

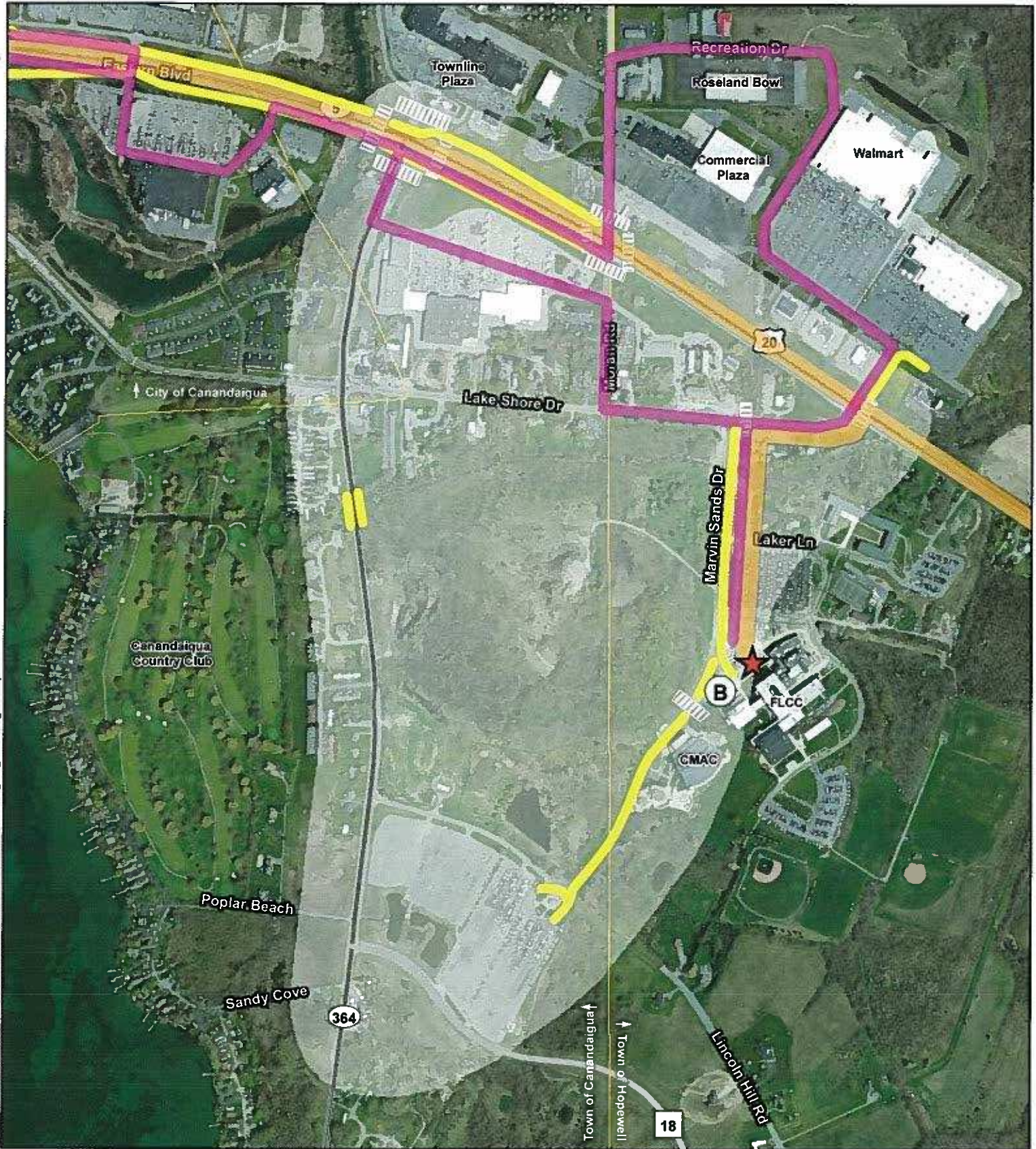


Roadway Geometry

Date: 12/12/2012
E-12



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1 inch = 750 feet
(When printed on 8.5" X 11")

Legend

- | | | | |
|--------------------|---------------|-----------|--------------|
| Study Area | County Road | Crosswalk | Bus Shelter |
| Parcels | State Highway | Sidewalk | CATS Route 2 |
| City/Town Boundary | US Highway | Bike Rack | CATS Route 4 |

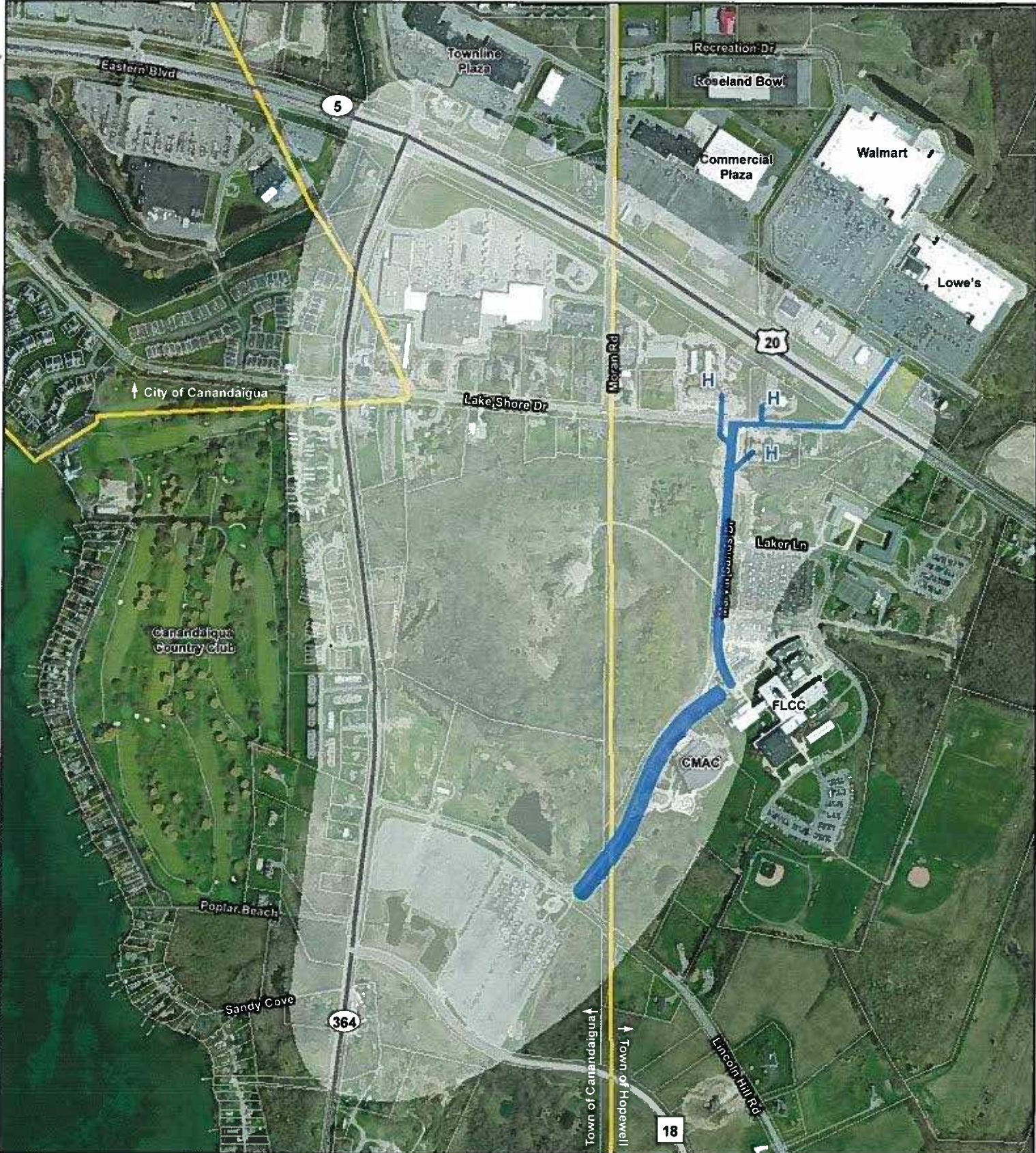


Transit/Bicycle/Pedestrian Inventory

Date: 12/12/2012

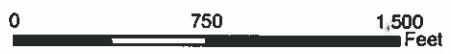


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Legend

- Study Area
- Parcels
- Town Boundary
- H Student Housing
- Line Thickness Indicates Amount of Pedestrian Activity
- 10 County Road
- 364 State Highway
- 20 US Highway



1 inch = 750 feet
(When printed on 8.5" X 11")

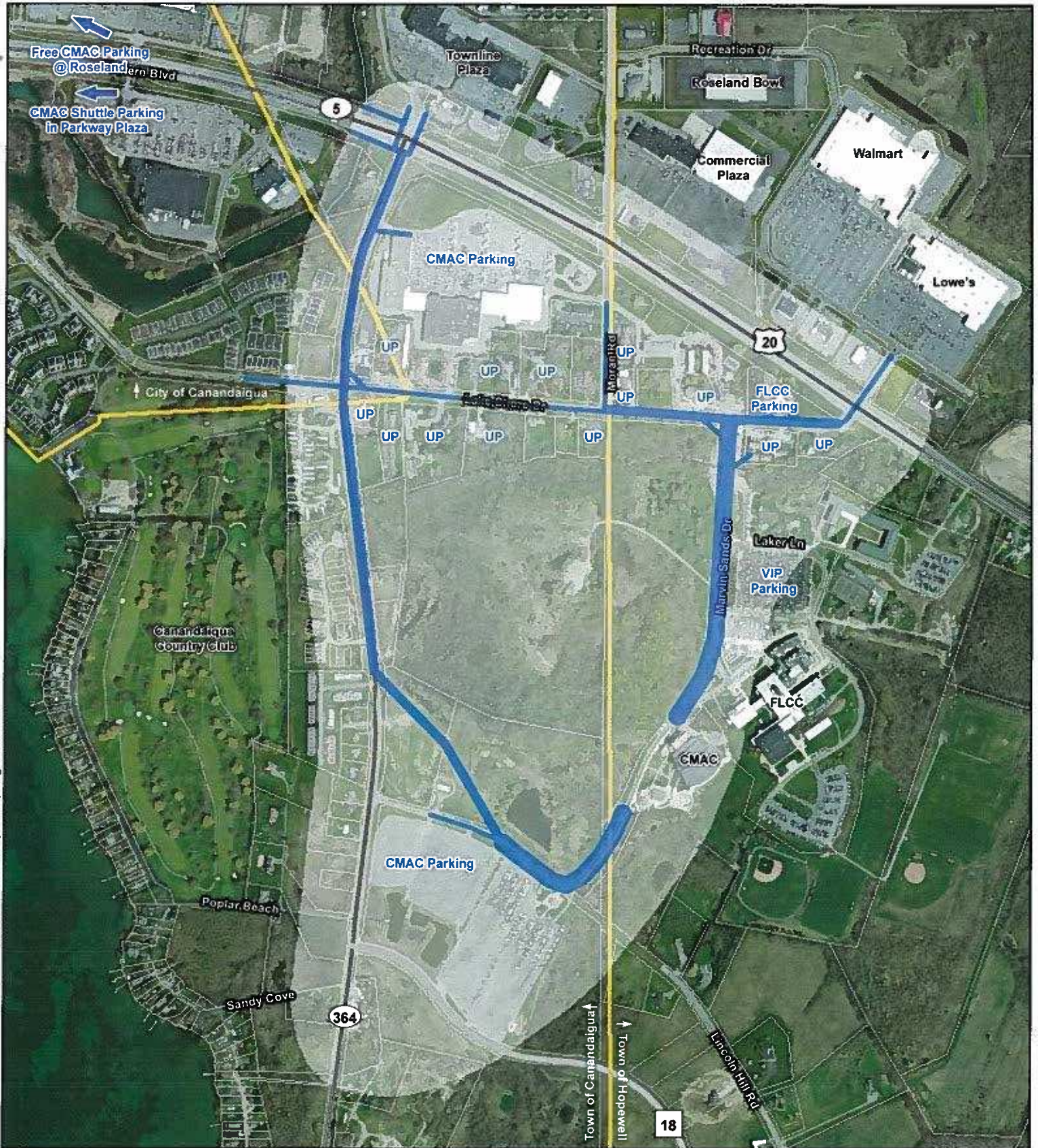


**Typical Weekday
Pedestrian Patterns**

Date: 12/12/2014



Source: Parcels, boundaries and street data received from Ontario County and processed by C&S Engineers, Inc.; Aerial Imagery background is from Bing Maps



Legend

- Study Area
- Parcels
- Town Boundary
- UP Unofficial Parking
- Line Thickness Indicates Amount of Pedestrian Activity
- County Road
- State Highway
- US Highway

0 750 1,500 Feet

Special Event Pedestrian Patterns & Parking Areas

(Tim McGraw Concert
6/29/12 @ 7:30 pm)

1 inch = 750 feet
(When printed on 8.5" X 11")



Date: 12/12/2015



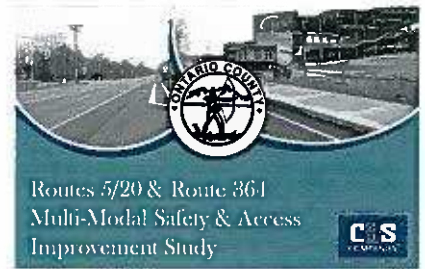
Sign-In Sheet – Public Open House #1

Project: **Routes 5/20 & Route 364 Multi-Modal Safety & Access Improvement Study**
Date/Time: January 31, 2013
Place: FLCC Student Center – 2nd Floor Lobby
C&S Project No.: 371.009.001

[illegible]

Comment Sheet – Public Open House #1

Project: **Routes 5/20 & Route 364 Multi-Modal Safety & Access Improvement Study**
Date/Time: **January 31, 2013**
Place: **FLCC Student Center – 2nd Floor Lobby**



Name (optional): Lou Wiesner - Ontario ARC

Interested in participating as a stakeholder → how can ARC improve service to & from Campus?

Expand linkages w/ CATS?

Better coordination w/ campus?

CREATING GREAT OPPORTUNITIES FOR PEOPLE WITH DEVELOPMENTAL DISABILITIES



Lou Wiesner
Director, Facilities and Transportation

P. 585.919.2231

F. 585.394.1987

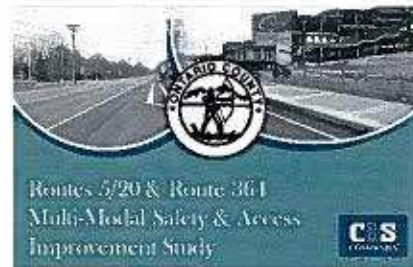
e-mail lwiesner@ontarioarc.org

3071 County Complex Drive
Canandaigua, NY 14424

A member of NYSARC, Inc.

Comment Sheet – Public Open House #1

Project: **Routes 5/20 & Route 364 Multi-Modal Safety & Access Improvement Study**
 Date/Time: January 31, 2013
 Place: FLCC Student Center – 2nd Floor Lobby



Name (optional): Kevin Kelley notes from discussion w/ Student!



students take
this path
↳ more direct
less safe

How do we
encourage
people to
use this
path?

Lots of
students go
thru child
care lot, th
Lot A → mon
direct to
main bldg.

Show us...

- Where do you walk/bike?
- Where do you want sidewalks, bike lanes, crosswalks, trails, etc?
- Where do you want a bus stop or routes?
- Where are the areas that have safety issues?

Comment Sheet – Public Open House #1

Project: **Routes 5/20 & Route 364 Multi-Modal Safety & Access Improvement Study**
Date/Time: **January 31, 2013**
Place: **FLCC Student Center – 2nd Floor Lobby**

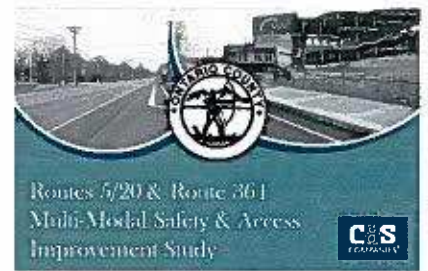


Name (optional): Student

* Shuttle A let to Campus

Comment Sheet – Public Open House #1

Project: Routes 5/20 & Route 364 Multi-Modal Safety & Access Improvement Study
Date/Time: January 31, 2013
Place: FLCC Student Center – 2nd Floor Lobby



Name (optional): Martin Glicco

Director of Highway FLCC (5 yrs)

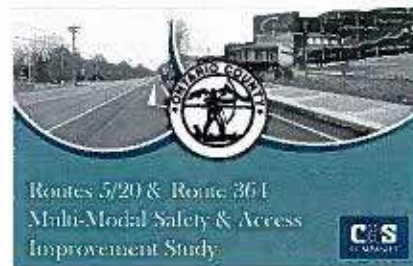
↳ no ped lighting on 5/20
west of Wagon

↳ speed enforcement
↳ ped warning signs

* positive comments regarding CATS
not a lot but only good
↳ won't cross county lines

Comment Sheet – Public Open House #1

Project: **Routes 5/20 & Route 364 Multi-Modal Safety & Access Improvement Study**
Date/Time: January 31, 2013
Place: FLCC Student Center – 2nd Floor Lobby



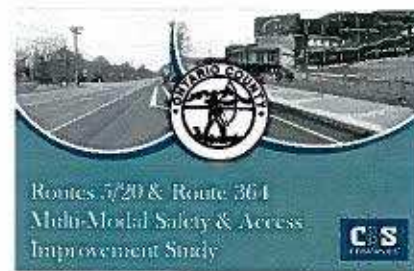
Name (optional):

Student

- Security in a lot + more lighting
- bike security

Comment Sheet – Public Open House #1

Project: **Routes 5/20 & Route 364 Multi-Modal Safety & Access Improvement Study**
Date/Time: January 31, 2013
Place: FLCC Student Center – 2nd Floor Lobby

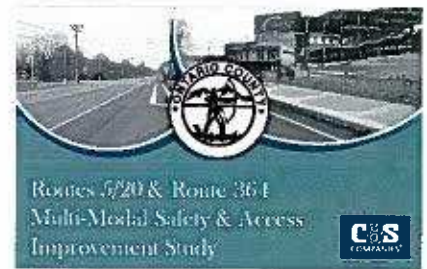


Name (optional): Chris Sierzega

- ① New Sidewalk between CMAC and Parking lot G needs updated LED lighting and needs to be left on for night class students walking to Lot G.
- ② Also, an emergency "Blue" light along that route, would be nice.
- ③ Snow needs to be plowed onto the grass, so when walking to the Honors House, students are not walking in the west bound lane on Lake Shore Blvd.
- ④ - A crosswalk sign, would increase awareness of students crossing Lake Shore Blvd.
- ⑤ - A sidewalk from the Entrance to the College connecting to the sidewalk at Moran Rd on either side of Lake Shore Blvd, would keep students off the side of the road, and again increasing awareness of students walking along that stretch of road.

Comment Sheet – Public Open House #1

Project: **Routes 5/20 & Route 364 Multi-Modal Safety & Access Improvement Study**
Date/Time: January 31, 2013
Place: FLCC Student Center – 2nd Floor Lobby



Name (optional): Chris Sierzege

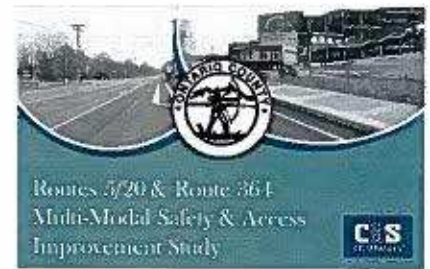


Show us...

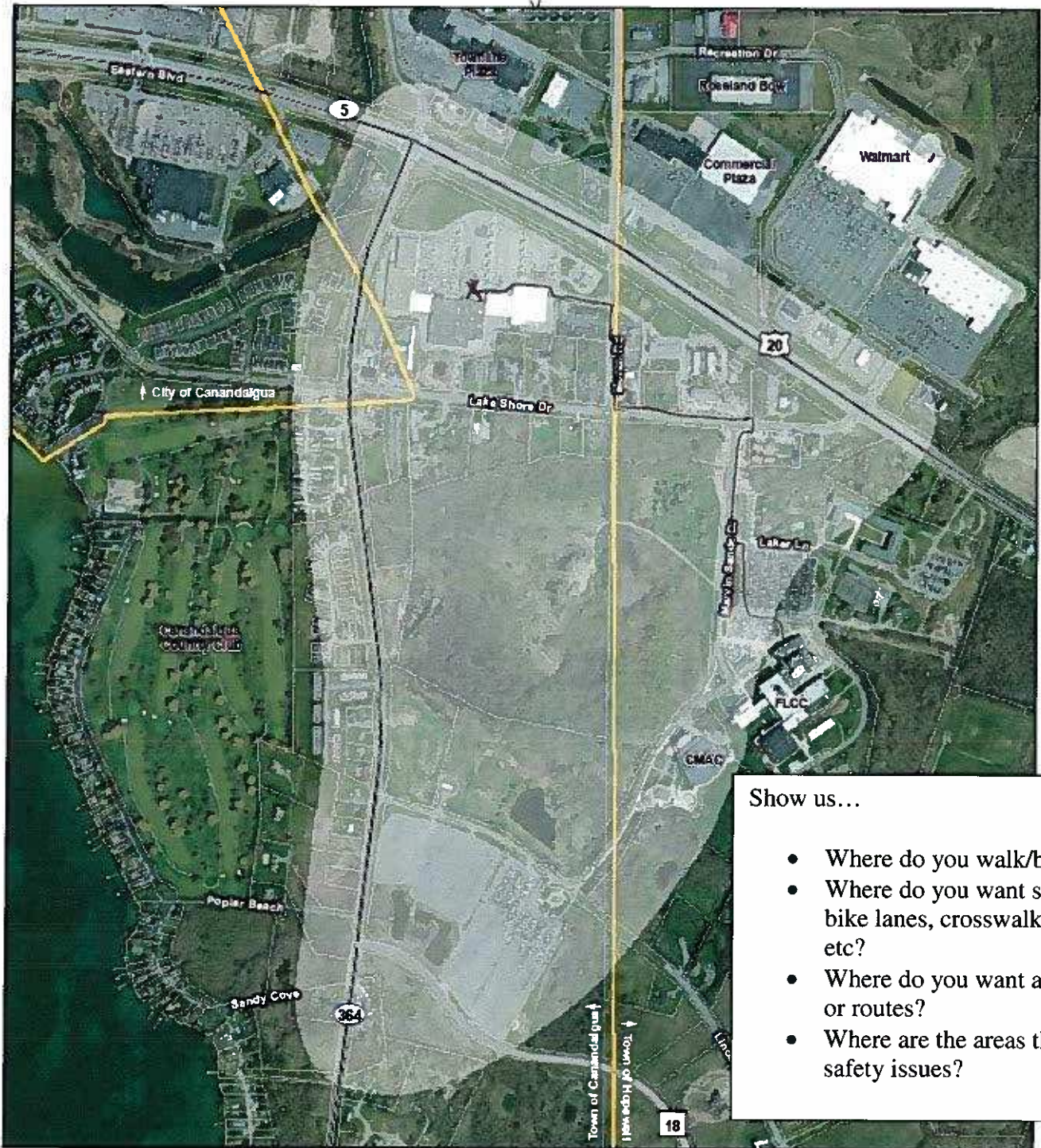
- Where do you walk/bike?
- Where do you want sidewalks, bike lanes, crosswalks, trails, etc?
- Where do you want a bus stop or routes?
- Where are the areas that have safety issues?

Comment Sheet – Public Open House #1

Project: **Routes 5/20 & Route 364 Multi-Modal Safety & Access Improvement Study**
Date/Time: January 31, 2013
Place: FLCC Student Center – 2nd Floor Lobby



Name (optional): Elizabeth Merklinger



Show us...

- Where do you walk/bike?
- Where do you want sidewalks, bike lanes, crosswalks, trails, etc?
- Where do you want a bus stop or routes?
- Where are the areas that have safety issues?

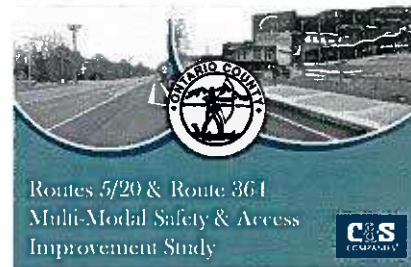
Comment Sheet – Public Open House #1

I walk to work 3 times a week, and when walking, I have ~~some~~ trouble - especially trying to cross Moran Rd. I have to find gaps in the traffic. There are no sidewalks from the crosswalk near the Honors House to Moran Rd., and no sidewalks down Moran Rd., so it can be difficult to walk safely.

I'd like a sidewalk along Lakeshore Drive, and up Moran Rd.

Comment Sheet – Public Open House #1

Project: **Routes 5/20 & Route 364 Multi-Modal Safety & Access Improvement Study**
Date/Time: **January 31, 2013**
Place: **FLCC Student Center – 2nd Floor Lobby**



Name (optional): Student

→ Signal @ marvin sands & lakeshore
4 hard time turning left.

Meeting agenda:

1. Welcome and Introductions
2. Project Purpose & Process
3. Existing Conditions Overview
4. Public Involvement
5. Preliminary Needs Assessment
6. Recommendations
7. Questions

Comments from attendees:

- Concerned that average annual daily traffic volumes noted under-represent summer and special event traffic in the area, especially along RT 364
- Study should have covered a larger geographic area to include roadways/routes associated with special event traffic (e.g., Smith Road, RTS 332, and RTS 5/20 east of Lakeshore Dr, or general concepts of traffic bypassing the City of Canandaigua)
- Accident data should be evaluated to consider seasonal/monthly patterns
- Sun glare for drivers along Lakeshore Dr affect visibility and safety for pedestrians walking along the roadway
- Towns of Canandaigua and Hopewell are excited to work together with the County to reconstruct Lakeshore Dr
- Concerned with trying new flashing yellow indication on RTS 5/20 approaches to intersections but agree with need to realign and install new signal heads
- Should consider a bridge or tunnel to cross RTS 5/20
- Boulders have been placed along the border of G lot to discourage driving on lawn to exit lot
- CMAC should provide additional parking to support their events
- When not used for a special event, the access points to G lot are barricaded forcing FLCC employees and students to follow CR 18 to RT 364 then turn right onto Marvin Sands to access G lot. If those access points were open, it would eliminate some traffic on RT 364 on that stretch.
- Consider directing people to CMAC/G lot via RT 247 and CR 18 for arrivals, similar to the exiting route to/from points east
- Only accommodating bicyclists in the shoulder on RT 364 does not take their needs into consideration during special events if it is recommended that dual left lanes are used with through traffic using the shoulder
- General preference is for the shared-use path along the east side of RT 364 and north/west side of Marvin Sands but education/signage indicating how the path would be shared safely by pedestrians and bicycles should be considered
- Installing sidewalk/pedestrian level lighting on west side of RT 364 was discussed with the following points made:
 - Residents do not want pedestrians walking/trespassing in their yards during special events so installing the shared-use path on the east side is desirable
 - At the same time, residents should have access to sidewalks for mobility/safety purposes
 - Consider installing lights that are on a timer or controlled such that they can be turned on only during special events

- Consider stone dust top for shared-use path: cheaper to install than concrete or asphalt
- Installing stop signs on Lakeshore Dr at Moran Rd and/or Marvin Sands would be problematic during special events
- General consensus that dedicated bike lanes were desirable


Attached:

- Presentation slides
- Sign in sheet
- Table materials




Routes 5/20 & Route 364 Multi-Modal Safety &
Access Improvement Study
Public Informational Meeting

May 16, 2013



Agenda

- Welcome and Introductions
- Project Purpose & Process
- Existing Conditions Overview
- Public Involvement
- Needs Assessment
- Recommendations
- Questions



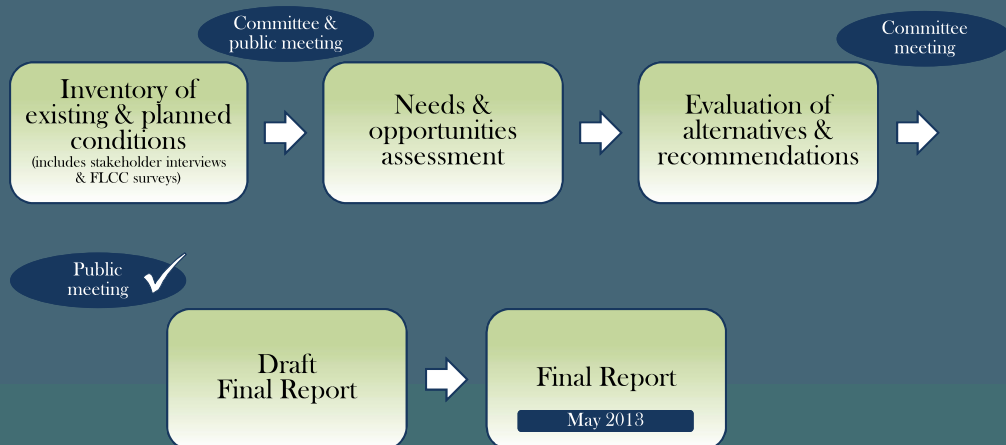


Project Purpose

Develop feasible transportation planning & design concepts that will improve safety & accessibility for pedestrians, bicyclists, & motorists, consistent with general community goals & expectations.

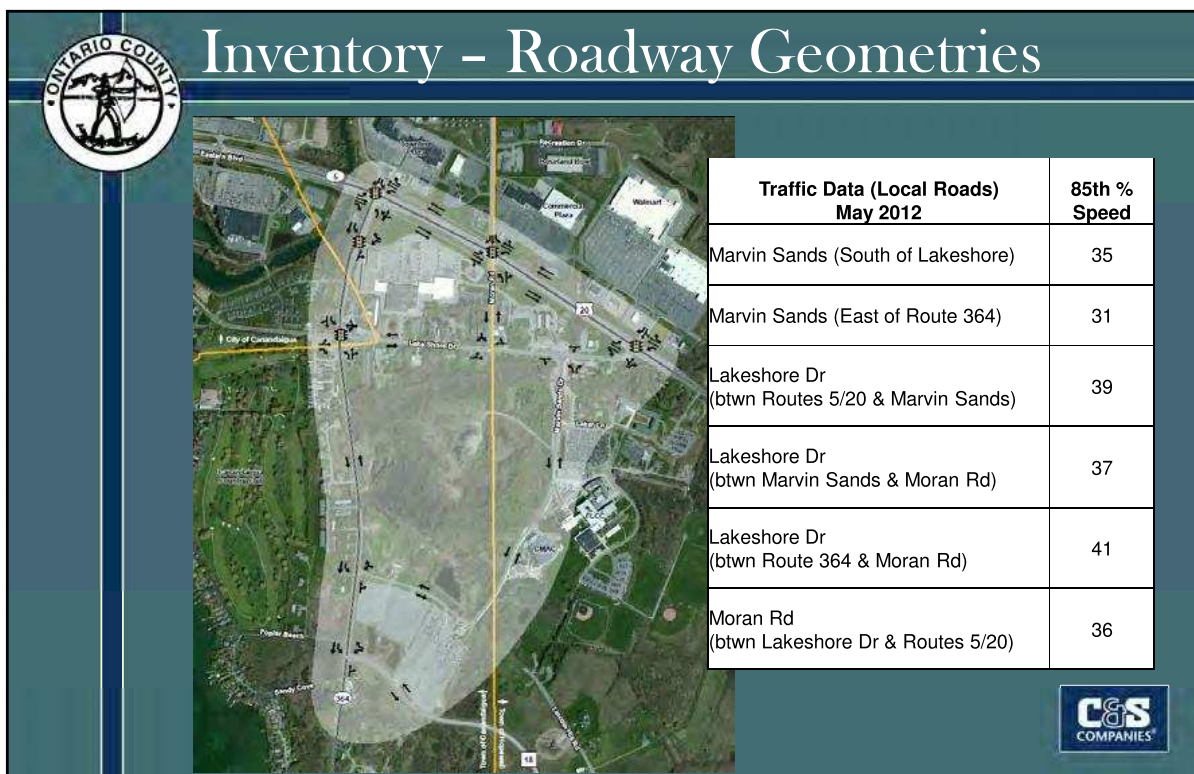
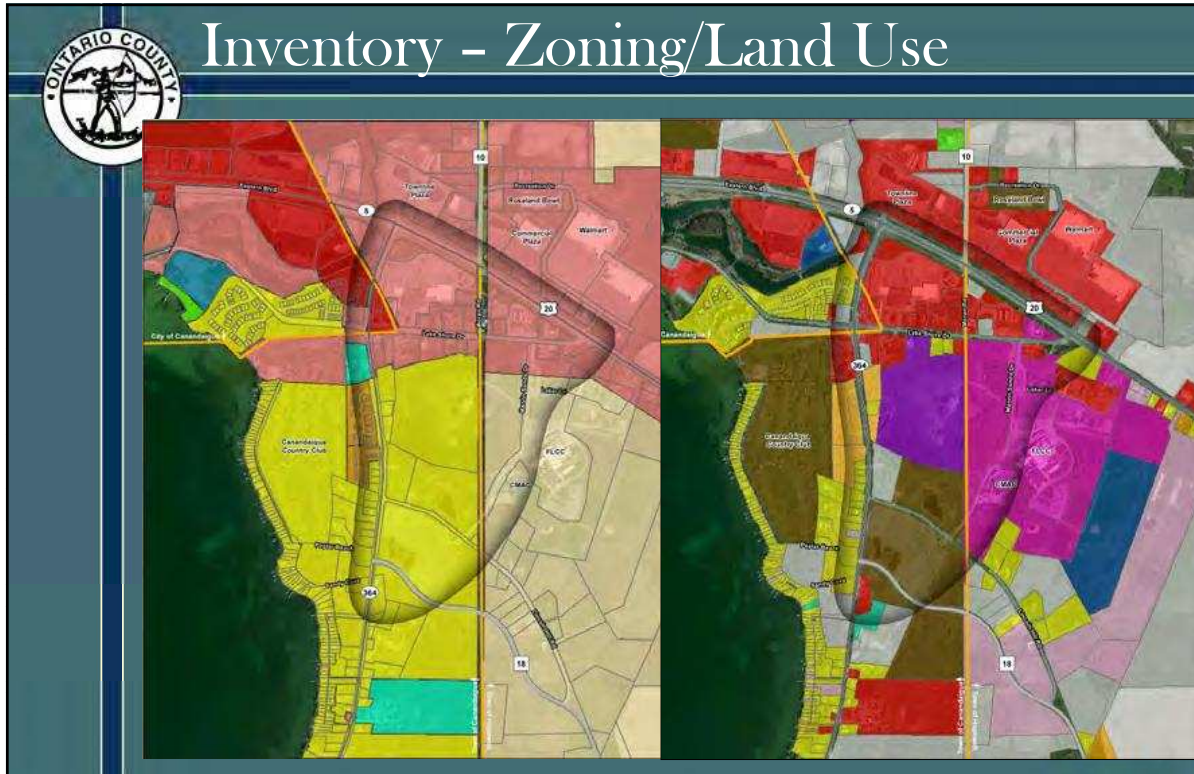


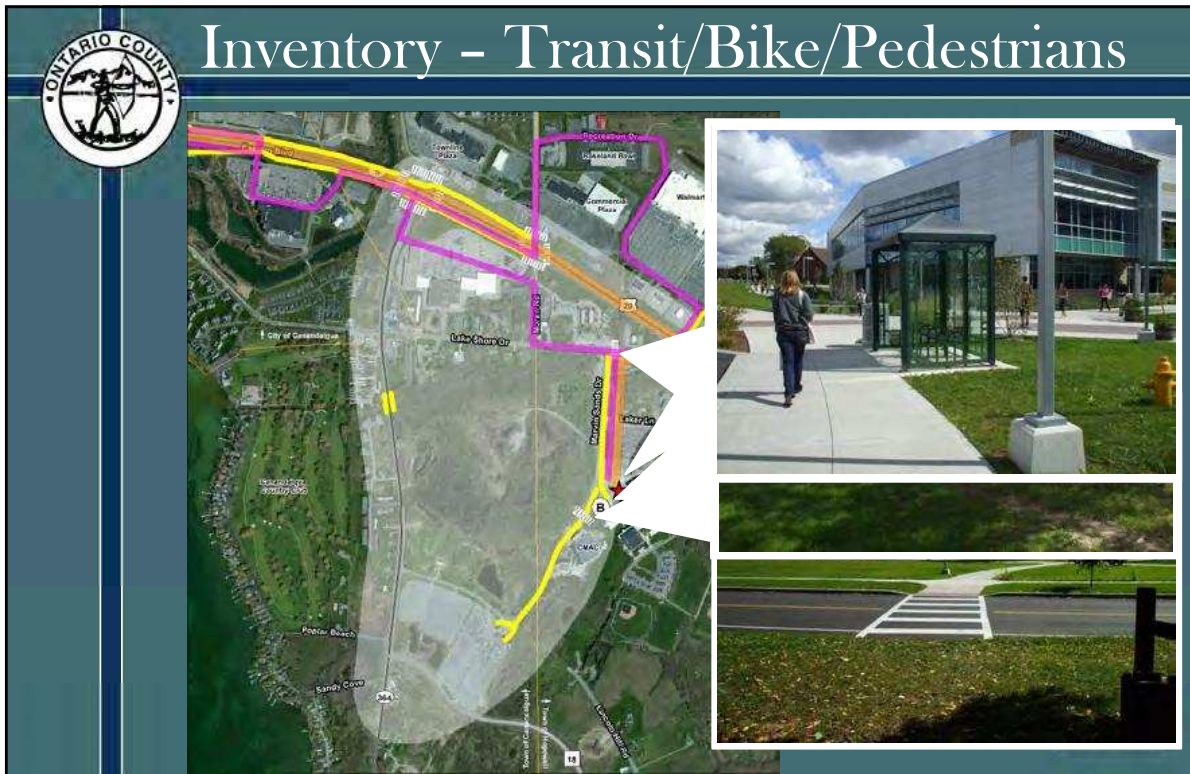
Project Process



[illegible]

Report/Document Title	Agency/Entity	Author	Date
Town of Canandaigua Comprehensive Plan 2011 Update	Town of Canandaigua	edr Companies	2011
Town of Canandaigua zoning code	Town of Canandaigua		
Canandaigua Regional Transportation Study	GTC - Ontario Co (lead)	Clark Patterson Associates	May-06
Town of Hopewell 2004 Visioning Plan	Town of Hopewell		2004
Town of Hopewell Comprehensive Plan	Town of Hopewell	CPA	2006
Town of Hopewell zoning code	Town of Hopewell		
Ontario County Comprehensive Emergency Management Plan	Ontario County	Ontario County/NYS Emergency Management Office	Dec-03
Ontario County Fixed Route Evaluation - Final	Ontario County	Nelson Nygaard	Feb-10
Routes 5&20 Corridor Management Plan	Ontario County	peter j smith & co, inc.	
NYS Routes 5/20 Corridor Study - Lima to Canandaigua	GTC - Ontario Co (lead)	FRA Planning	Feb-04
Trails Master Plan	Town of Canandaigua	Parks & Rec - Town of Can	2010
FLCC 2011 Annual Security Report	FLCC	Office of Campus Safety	2011
FLCC Facilities Master Plan	FLCC	FLCC	2007
FLCC GHG Report	FLCC	OBG	2010
CMAC traffic management plan	CMAC		2008
Active Transportation Plan - Canandaigua	Canandaigua Walkers & Cyclists	Bill Taylor	2009





The slide features the Ontario County logo on the left. The main title is "Inventory - Accident Analysis". The content is a bulleted list of findings from a 3-year accident analysis. The logo for C&S Companies is in the bottom right corner.

- Reviewed data from a 3-year period (1/09 - 12/11)
- NYSDOT & detailed accident reports
- Data broken down based on:
 - Location (intersection vs roadway segment)
 - Property damage only vs injury vs non-reportable
- Accident rate calculation & comparison to statewide average rates for similar locations

C&S COMPANIES



Observations

- Typical weekday observations – Sept 19, 2012
- Special events @ CMAC
 - Tim McGraw – Friday, June 29, 2012 @ 7:30pm
 - Mumford & Sons – Tuesday, August 7, 2012 @ 7:00 pm



Observations – Typical Weekday



Wednesday, Sept 19

- 8-10:30 am
- A lot full around 8:30am
- No traffic congestion
- 1 biker observed but 4 bikes in rack





Observations – Tim McGraw



Observations – Mumford & Sons

Tuesday, August 7 - Show at 7:00pm





Stakeholder Interviews

- 4 meetings held on August 28th
- 30 potential stakeholders invited – 14 attended
- Topics discussed:
 - CMAC events
 - FLCC
 - Bike/Ped concerns
 - Access
 - Safety
 - Transit



FLCC Surveys

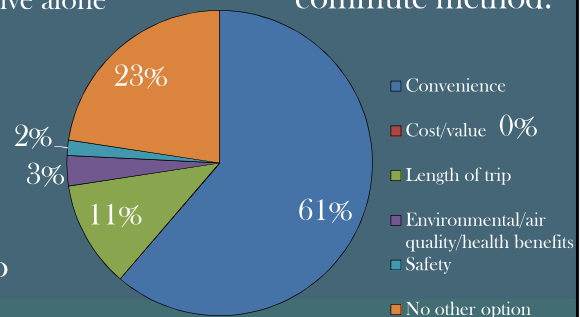
Top 3 reasons for driving alone:


1. Need car for errands before/after work
2. Hours are irregular
3. Enjoy my privacy/prefer to drive alone

Top 3 incentives/services needed to change commute method:

1. Improved transit routes/schedules
2. Guaranteed ride home
3. Flexible hours to accommodate transit schedules

Why they chose their commute method:





Public Open House

- January 31, 2013 from 4-6 PM
- FLCC Student Center
- Notifications on County, Town of Hopewell, CMAC, and YNN websites
- Article in Daily Messenger

You Are Invited!



You're invited to attend an open house for the
RTS 5/20 & 364 Multi-Modal Safety & Access Improvements Study
 —an effort to improve safety and accessibility for pedestrians, bicyclists, and motorists in the area surrounding FLCC and CMAC.


Public Open House
 Finger Lakes Community College, Student Center, 2nd Floor Lobby
 3325 Marvin Sands Drive • Canandaigua, NY 14424 • Free parking in "A Lot"


January 31, 2013 • 4:00 – 6:00 PM

Review and comment on the transportation system's strengths, weaknesses, and areas in need of improvement.

Please contact the Ontario County Department of Public Works if you have any questions or comments at Timothy.McElgott@co.ontario.ny.us or (585) 396-4000.





Public Open House

Tell us what you think...

Where are the areas of concern?
What do you think is needed to make the area safer?



Where do you walk, bike, & drive?
What do you need to get around safely & efficiently?

FLCC employee & student surveys Comment forms & maps






Bicycle/Pedestrian/Transit Inventory










Needs & Recommendations

- Intersection/vehicular safety
- Pedestrian/bicycle safety
- Special event considerations
- Services/programs
- Policy/planning



Intersection/Vehicular Safety

- Provide additional intersection-level lighting
 - RTS 5/20
 - Intersections of Lakeshore Dr with Moran Rd & Marvin Sands Dr

Existing lighting on RTS 5/20
west of the study area



- Install landscaping and/or trees along Lakeshore Dr & Moran Rd to calm traffic & create a sense of place





Intersection/Vehicular Safety

- Conduct traffic control warrant analyses at Lakeshore Dr with Moran Rd & Marvin Sands Dr
- Realign/install additional traffic signal heads at the intersections of RTS 5/20 with CR 10 & Lakeshore Dr

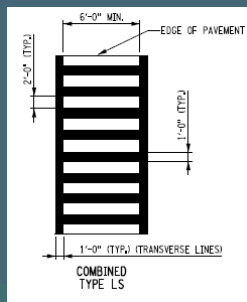


Excerpt from 2009 MUTCD



Pedestrian/Bicycle Safety

- Close gaps in sidewalk network
- Install enhanced crosswalks with appropriate warning signage



Ladder-type striping



Integrated Pavement



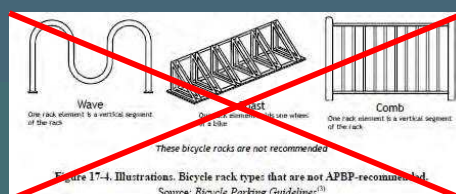
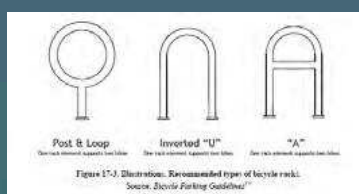
- Install permanent barrier along RTS 5/20





Pedestrian/Bicycle Safety

- Install sharrows, bike lanes, or shared-use paths with appropriate warning signage
- Provide additional bike racks & shelters
 - Residential/commercial properties
 - FLCC
 - CATS buses



Special Event Recommendations

- Develop 2-3 special event traffic management plans
- Communications improvements
- Use temporary lighting for pedestrians along RT 364
- Implement dual left turn lanes southbound on RT 364 @ CR 18 to improve traffic flow
- Install permanent barrier along Marvin Sands @ G lot





Services & Programs

- Market & promote CATS services
- Provide additional routes & service times
- Market & promote active transportation & transportation demand management at FLCC



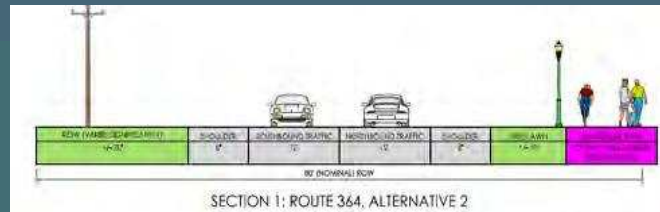
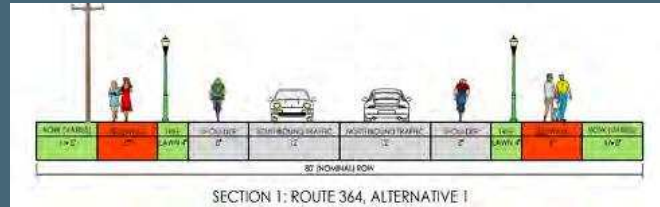
Town Codes

- Town of Canandaigua
 - Strengthen language regarding installation of sidewalks/paths
 - Need language to address bicycle parking/infrastructure in site plan design criteria
 - Need to address the process & financial details if someone wishes to improve sidewalks
- Town of Hopewell
 - Require the provision of bicycle access, circulation, and parking in site plans for commercial & mixed-use districts
 - Language regarding requirement of sidewalks in residential subdivisions need to be strengthened



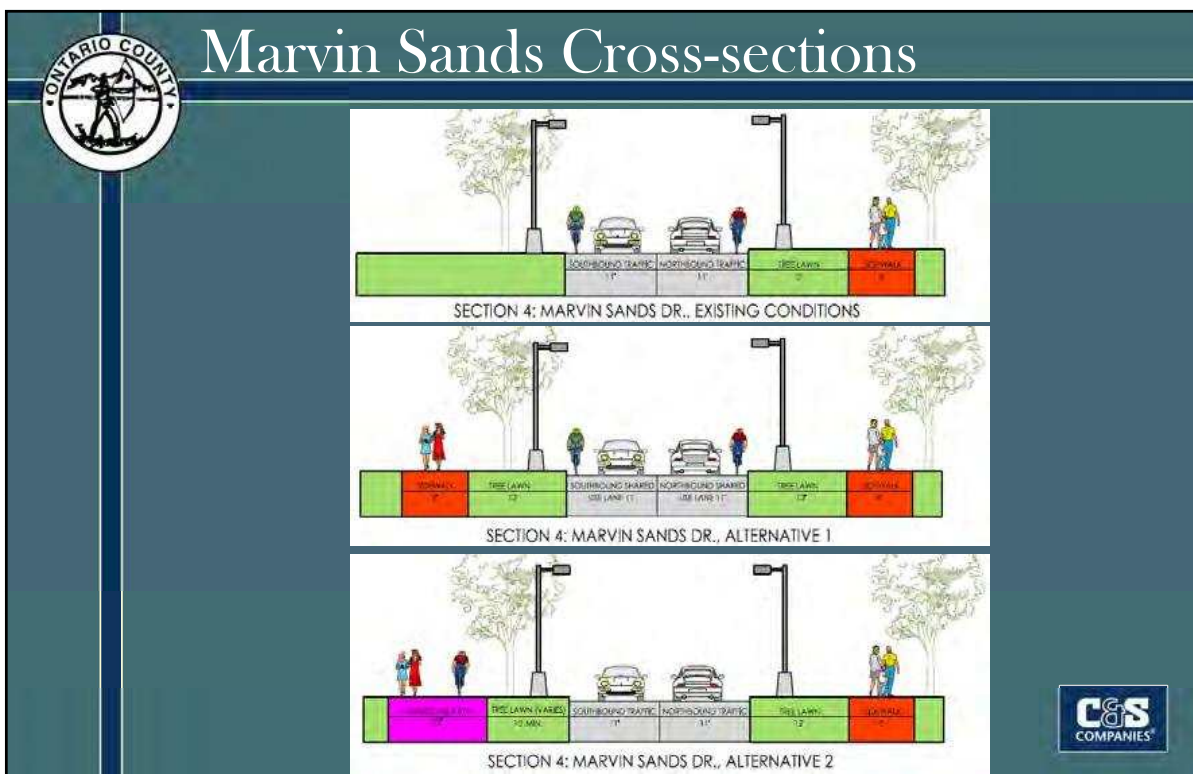
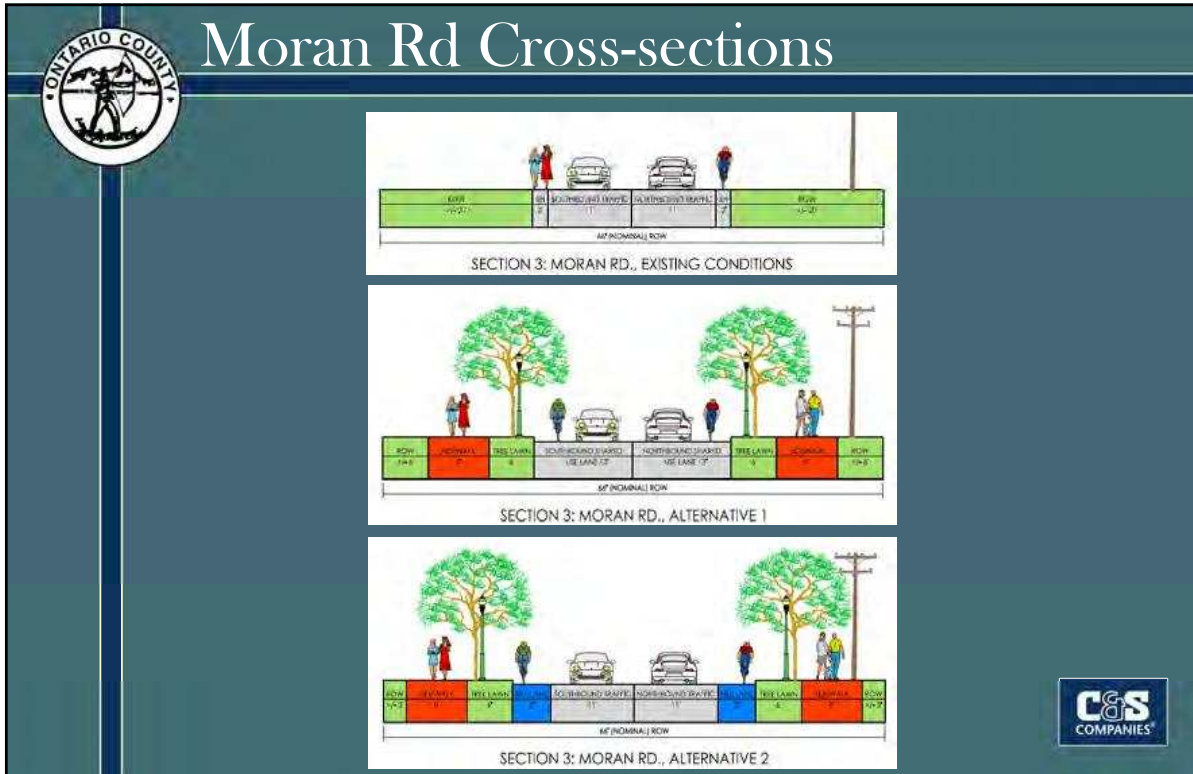


Route 364 Cross-sections



Lakeshore Dr Cross-sections







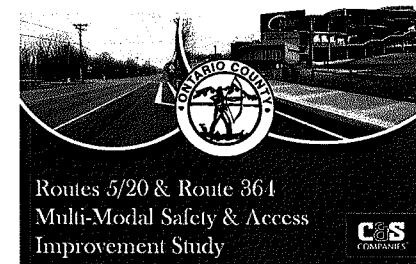
Questions?

- Any needs that are not being addressed?
- Which recommendations are highest priority?
- Are there any that you disagree with?
- Preferred roadway cross-sections?
- Additional recommendation alternatives?



Sign-In Sheet – Public Informational Meeting

Project: Routes 5/20 & Route 364 Multi-Modal Safety & Access Improvement Study
 Date/Time: May 16, 2013 @ 7:00 PM
 Place: Ontario County Safety Training Facility
 C&S Project No.: 371.009.001



Attendee	Affiliation	Telephone	E-Mail
Kevin Reynolds	Town Canandaigua		
Tim McElroy	OCDPW	393.2999	timothy.mcelroy@co.ontario.ny.us
Joe Bovenzi	GTC		
Raymond Rice	residence Hopewell	(585) 393-0575	raymondfrice@gmail.com
Margaret Hilton	Town Supervisor - Hopewell	585-394-8561	mihilton@townofhopewell.org
Julie Gotham	Ontario County Planning	585-396-4457	julie.gotham@co.ontario.ny.us
Sam Casella	Town Clerk/County BOS	394-1120	
DON BARNES	City of Lake	394-2052	
David Lee	Ontario County Tourism	394-3915	David@VisitFingerLakes.com
Bob GUSCORA	RESIDENT	394-8095	
Sue Bennett	FLCC	469-6161	Shawkoops5@aol.com
Vern Hecker	T/O Hopewell	394-2653 x2	vhecker@townofhopewell.org
Lydia + Jay Schadler	Town Board Member - Hopewell	289-1050	
THOMAS DOONER	RESIDENT	394-5790	
STEVE WILLIAMS	CMAA	802 8143	
SUESCHMIDT	FINGER LAKES VISITORS CONNECTION ONTARIO COUNTY TOURISM	394-3915	sue@visitfingerlakes.com

Needs Assessment Summary

Vehicular traffic needs:

- Signal head realignment at intersections of RTS 5/20 with CR 10 and RT 364
- Better lighting at intersections
- Signal at Lakeshore Dr & Marvin Sands Dr
- Need more speed enforcement on RTS 5/20

Bicycle/Pedestrian needs:

- Sidewalks & crosswalks along RTS 5/20, Lakeshore Dr, Moran Rd, RT 364, & west side of Marvin Sands Dr
- Bike lanes or marking & signage
- More bike/ped infrastructure & warning signage (racks, lanes, shelters, etc)
- Pedestrian-level lighting
- More direct designated pathways with crosswalks to CMAC/FLCC
- Make parking lots more bike/ped friendly
- Discourage jaywalking on RTS 5/20 behind Honors House
- Snowplowing needs to push snow farther from travel lane so pedestrians do not have to walk in travel lanes

Transit needs:

- More direct, reliable transit routes to reduce travel time
- Make information on available services/routes easier to find and understand
- Perceived as unsafe – drivers, germs, etc
- Need bike racks on buses
- Need service between different FLCC campuses
- Need connection between Main St and FLCC
- Provide more direct services to CMAC events

FLCC Campus needs:

- Have limited access to D lot – perceived as unsafe for pedestrians
- Not enough Blue Emergency lights/more security – especially to/from G lot
- Need a shuttle between G lot & campus
- Too many conflict points near main entrance
- Need more bike/ped infrastructure & security (racks, lanes, shelters, etc)

CMAC special event needs:

- Updated traffic management plans
- Consider both auto and pedestrian traffic control
- Improve traffic flow & access to G lot
- Improve pedestrian environment & discourage use of private property as pathways
- Improve communications associated with parking options/availability to improve traffic flow
 - Wayfinding
 - Notification of appropriate parking area

Recommendations Summary

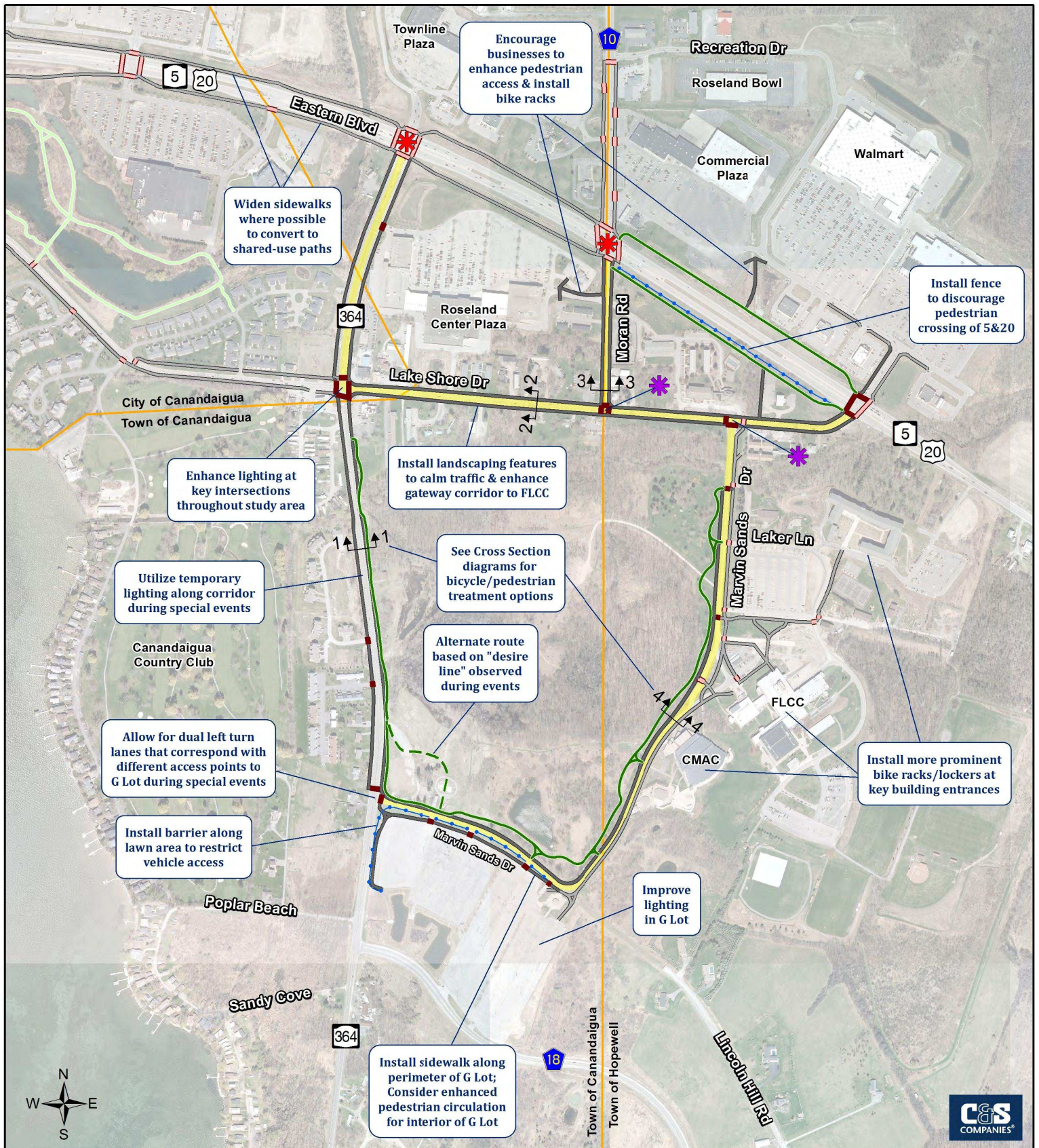
<u>Location</u>	<u>Recommendation Description</u>
Intersection/Vehicle Safety Recommendations	
Provide additional intersection-level lighting	Additional lighting is needed along RTS 5/20 from CR 10 to Lakeshore Dr and at the intersections within the study area.
Conduct traffic control warrant analyses	Conduct traffic control warrant analyses at the intersections of Lakeshore Dr with Moran Rd and Marvin Sands Dr.
Realign traffic signal heads	Realign signal heads at the intersections of RTS 5/20 with RT 364 and CR 10.
Install landscaping to calm traffic & create a signature look to the study area	Provide landscaped buffer areas to calm traffic & help create a gateway or signature look to the study area.
Pedestrian/Bicycle Safety Recommendations	
Close the gaps in sidewalk network	Provide sidewalks on both sides of the following roadways: RTS 5/20 from CR 10 and Lakeshore Dr, RT 364 between RTS 5/20 and Marvin Sands, Moran Rd, Lakeshore Dr. Provide sidewalk on the west side of Marvin Sands at FLCC/CMAC. Recommend all sidewalk is 8' in width to accommodate snow removal equipment.
Install pedestrian level lighting	Pedestrian level lighting is needed along Lakeshore Dr, Moran Rd, Marvin Sands Dr, and on RT 364.
Install enhanced crosswalks	Install enhanced crosswalks through striping or integrated paving techniques at key crossing locations
Install bike lanes, sharrows or signage to provide dedicated space for bicyclists	Dependent upon the available width of roadways, install sharrows, bike lanes, or shared-use path where possible along with applicable warning signage and pavement markings.
Install bicycle infrastructure throughout the study area	Coordinate with residential/commercial property owners to provide additional bike racks throughout the study area.
	Provide additional bike racks at FLCC with shelters & options for more secure storage.
	Install bike racks on CATS buses.
Install permanent barrier along RTS 5/20 near campus housing and Honors House	To encourage crossing of RTS 5/20 at the intersection with Lakeshore Dr, install permanent barrier (fence) along south side of RTS 5/20 between CR 10 and Lakeshore Dr.
Special Event Recommendations	
Develop 2-3 special event traffic management plans	Due to the variety of times and types of events, multiple event plans should be created to accommodate different needs (regional vs local draw, tailgating vs last minute arrivals, etc).
Special event communications improvements	Improve communications (signage, social media, wireless communications, etc) between CMAC, law enforcement, parking staff & public regarding parking availability to improve traffic flow.
Update CMAC Directions & Parking webpage	Include access map showing alternative routes, parking map with fees, link to sign up for social media
Traffic flow improvements @ CR 18 parking access	Allow for dual left turns from RT 364 onto CR 18 that direct each lane into different access points into G Lot to improve traffic flow.
Vehicular/pedestrian safety - install permanent barriers along Marvin Sands at G Lot	To eliminate access for vehicles from G Lot to Marvin Sands during special events, install permanent barriers with gates at access points.
Pedestrian lighting during special events	Temporary lighting is recommended on RT 364 south of Lakeshore Dr for special events (if permanent lighting is not desired) & improve lighting in G lot.

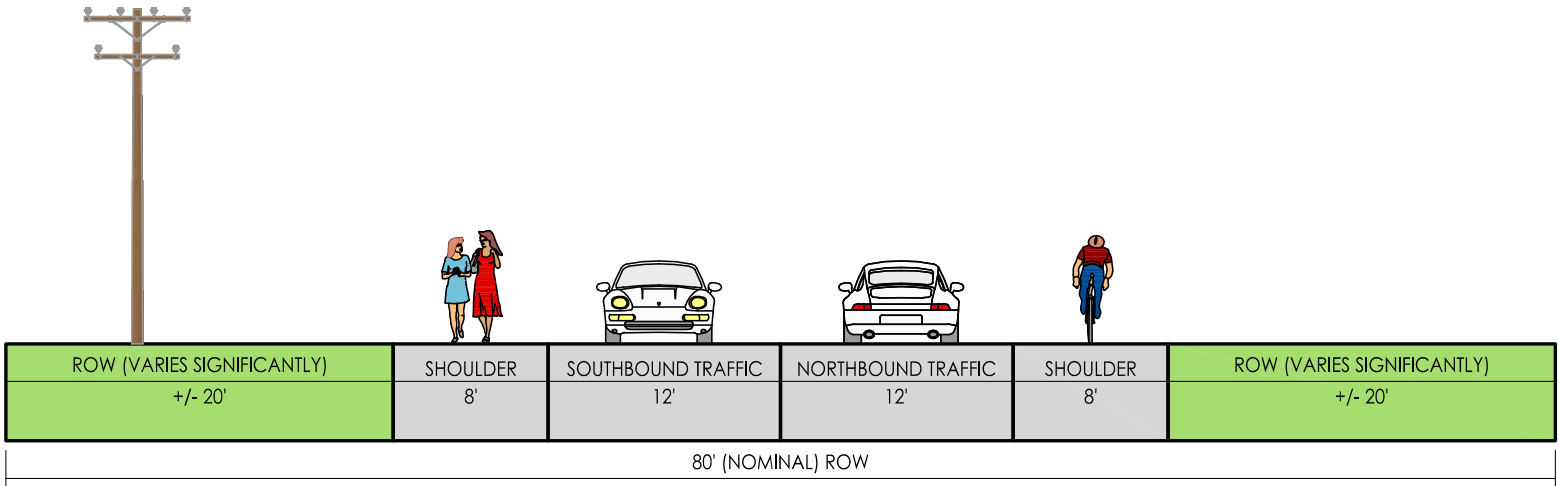
Capital improvement projects
Service & program recommendations
Policy & planning recommendations

Recommendations Summary

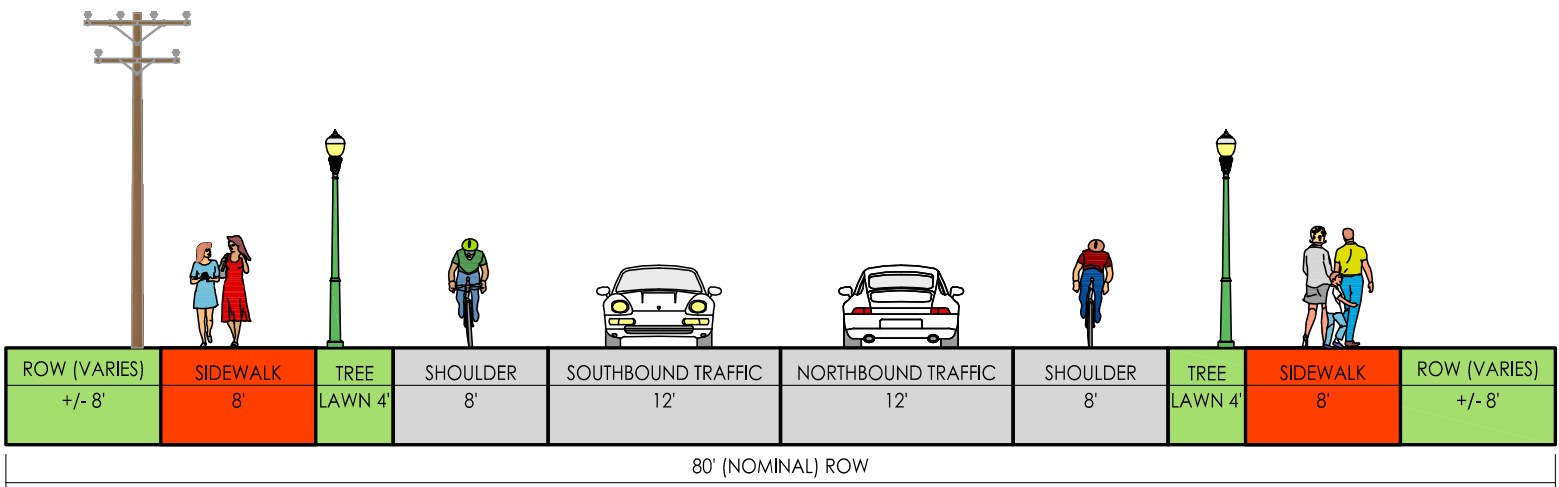
<u>Location</u>	<u>Recommendation Description</u>
Service & Program Recommendations	
Market & promote existing CATS services	Better inform the public on CATS existing services - routes, service times, stops, prices, etc. - through website, social media, printed information at FLCC or other commercial establishments, etc.
Provide additional CATS routes and service times	Offer more direct routes for shorter travel times with more service times. Additional routes requested were between FLCC campuses, CMAC events, between FLCC and Main St in downtown Canandaigua.
Market & promote active transportation and transportation demand management at FLCC	Educate & promote the benefits of active transportation to the public & FLCC employees/students.
	Establish transportation demand management programs & incentives to promote alternative modes of transportation for FLCC employees and students.
	Educate the public on the rules of the road and safety regulations when it comes to walking and biking.
Policy & Planning Recommendations	
Strengthen bicycle & pedestrian supportive code in Town of Canandaigua	Existing language in Town of Canandaigua code notes that installation of sidewalks and paths are as required by Planning Board discretion. Need language to address bicycle parking/infrastructure in site plan design criteria. Need to address the process & financial details that will apply if they seek to improve the existing sidewalk system.
Strengthen bicycle & pedestrian supportive code in Town of Hopewell	Existing Town of Hopewell code mentions some pedestrian accommodations but has little or no mention of accommodating bicyclists. In particular, need to require the provision of bicycle access, circulation, and parking in Site Plans for commercial and mixed-use districts. Provision of sidewalks in residential subdivisions needs to be strengthened to require the developer, not the Planning Board, to demonstrate when sidewalks are not appropriate.
Establish shared maintenance agreement	With 3 different municipalities in the study area, a shared maintenance agreement will clarify the roles and responsibilities of each in the study area and ensure there are no gaps in services.

Capital improvement projects
Service & program recommendations
Policy & planning recommendations

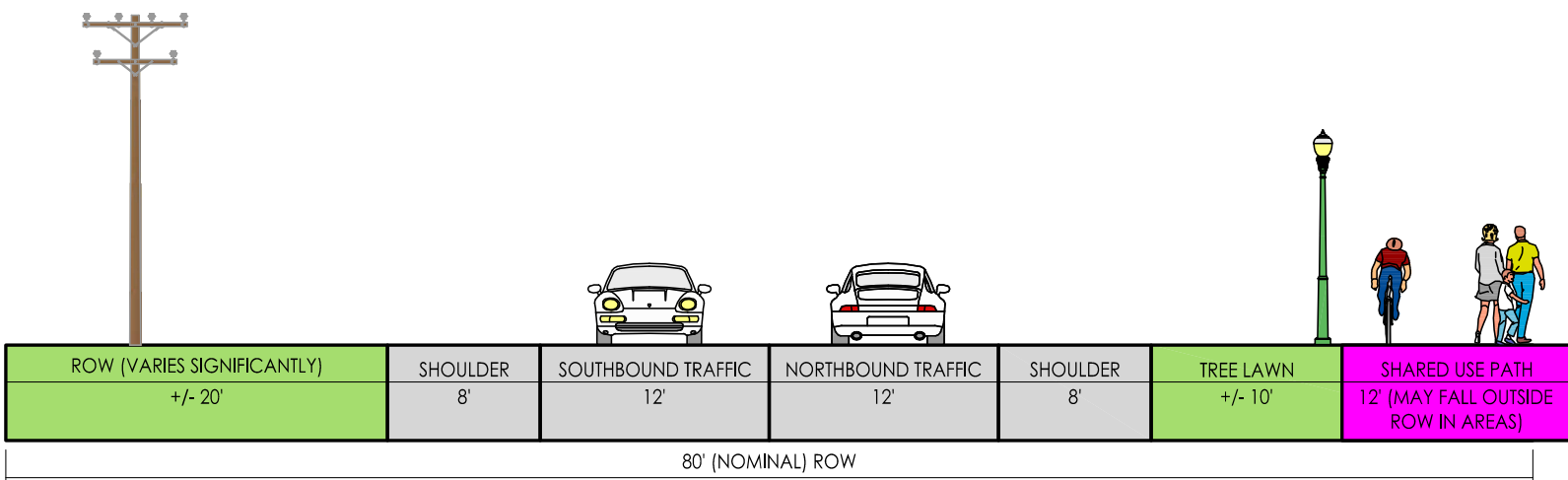




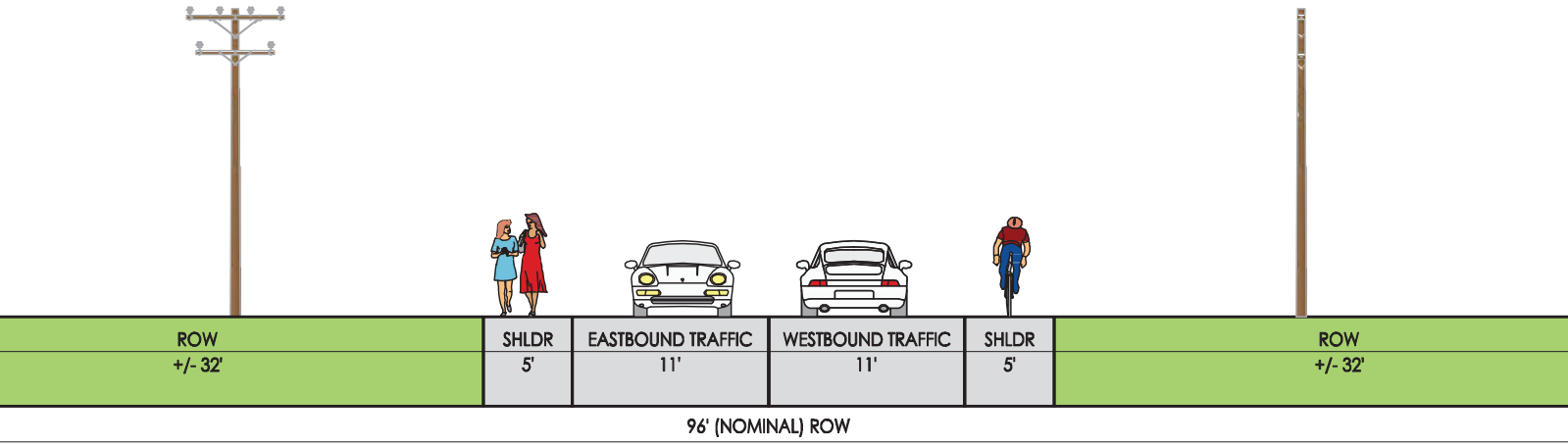
SECTION 1: ROUTE 364, EXISTING CONDITIONS



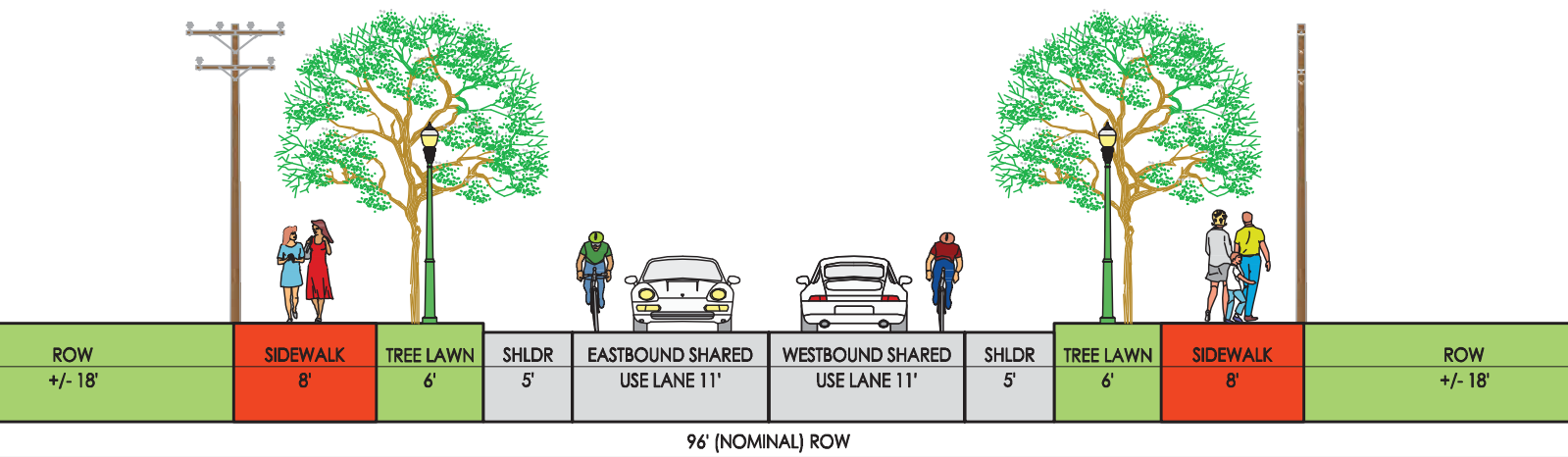
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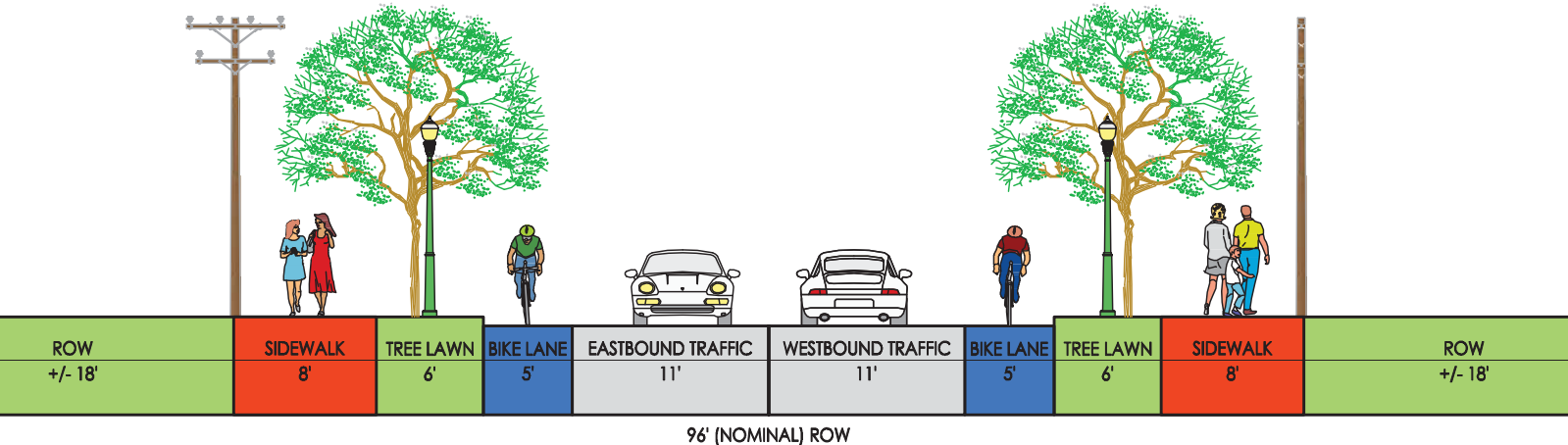
SECTION 1: ROUTE 364, ALTERNATIVE 2



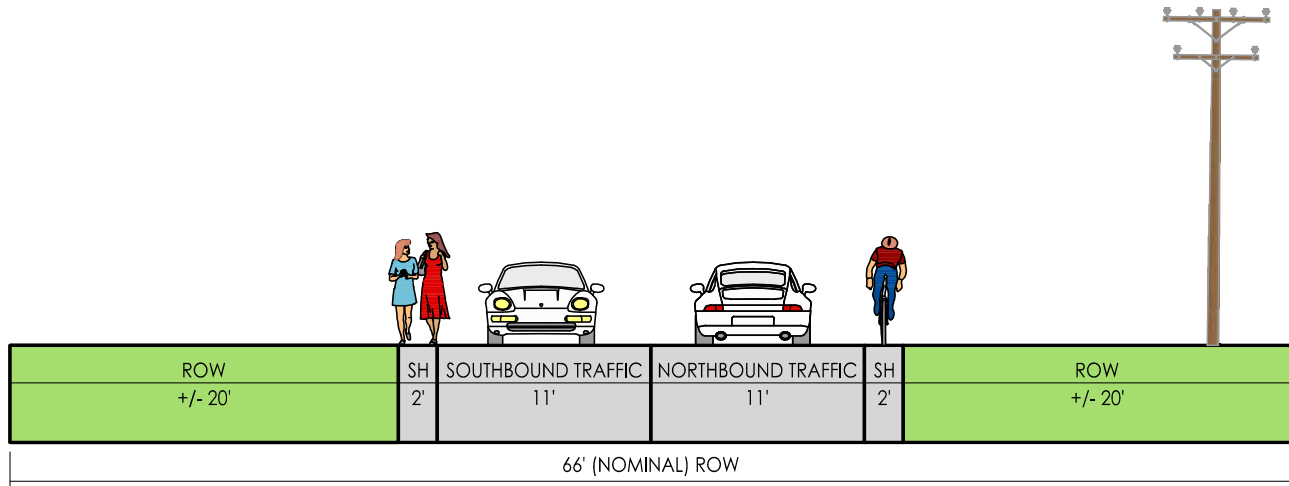
SECTION 2: LAKESHORE DR., EXISTING CONDITIONS



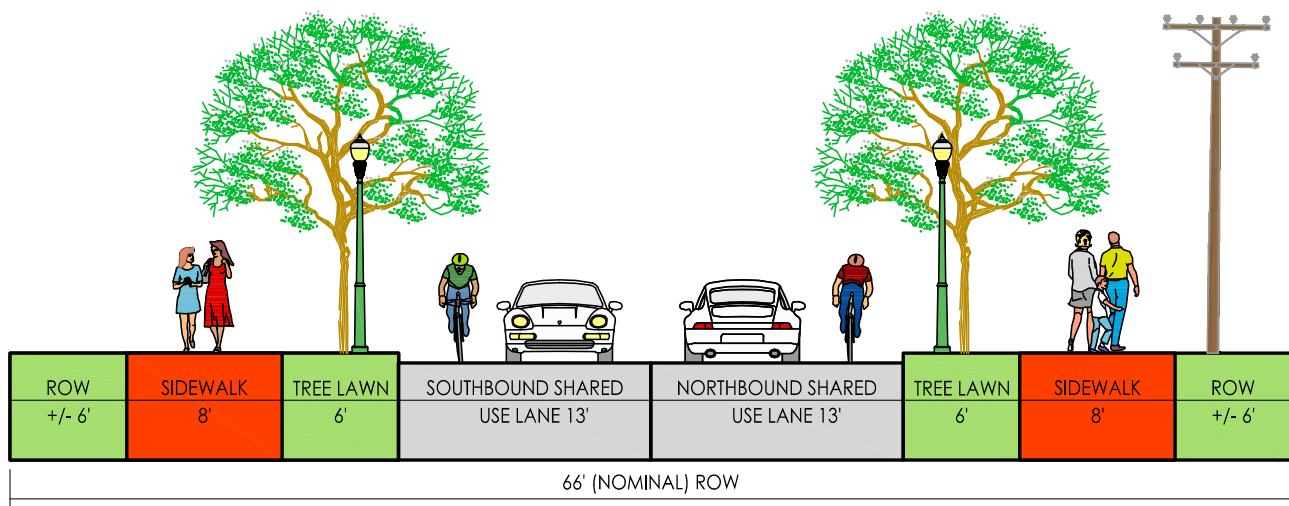
SECTION 2: LAKESHORE DR., ALTERNATIVE 1



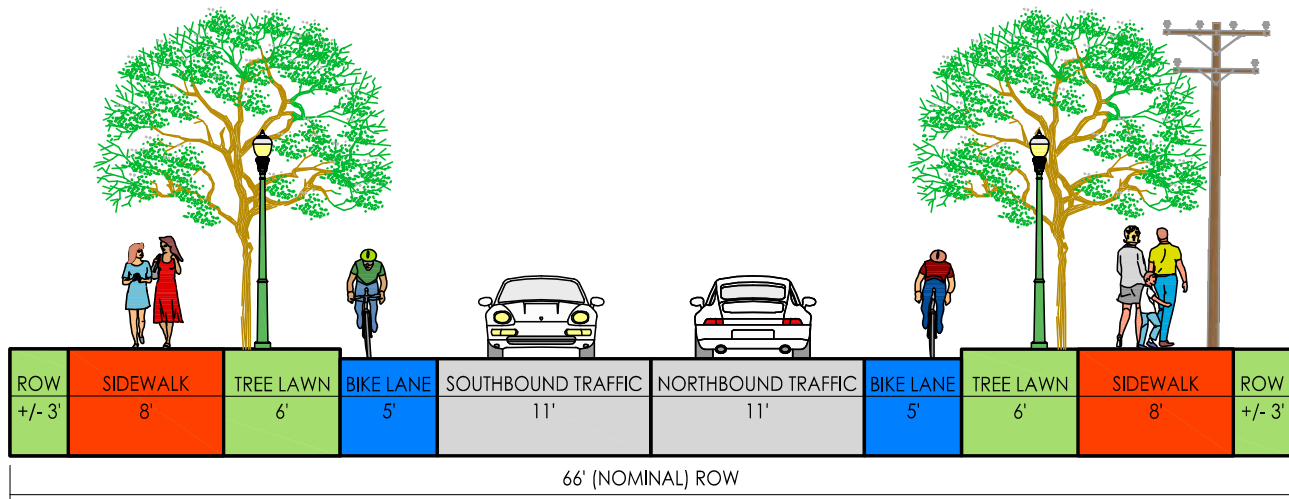
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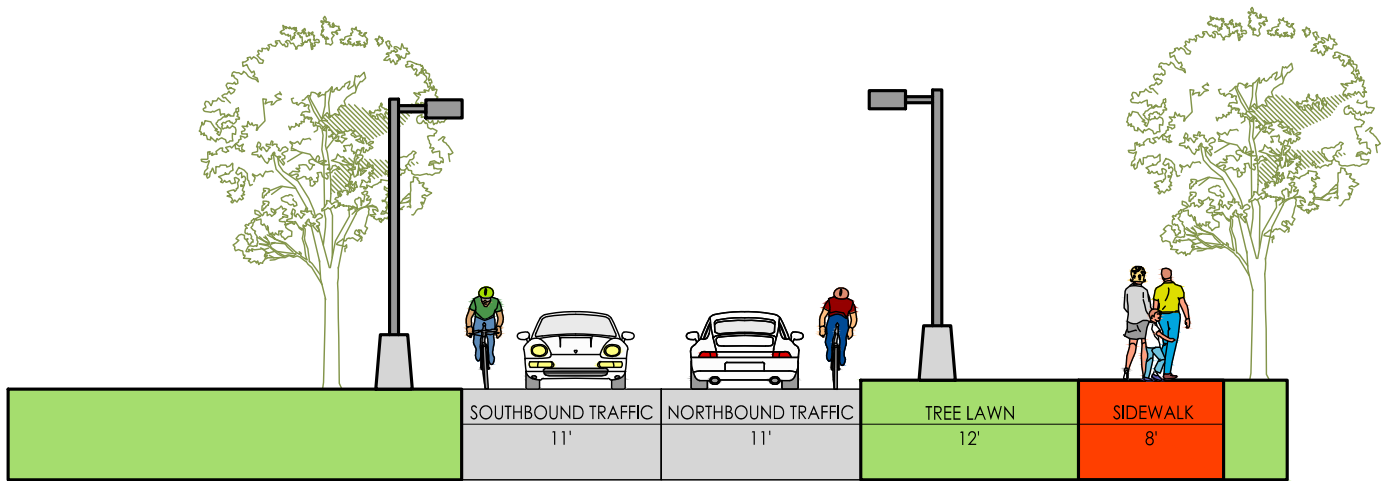
SECTION 3: MORAN RD., EXISTING CONDITIONS



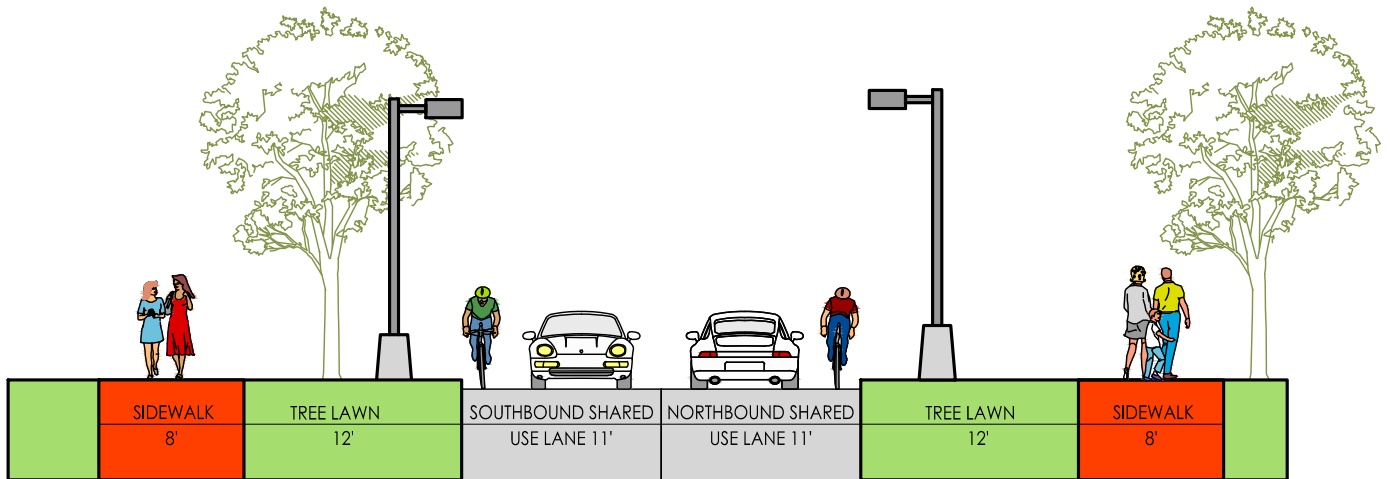
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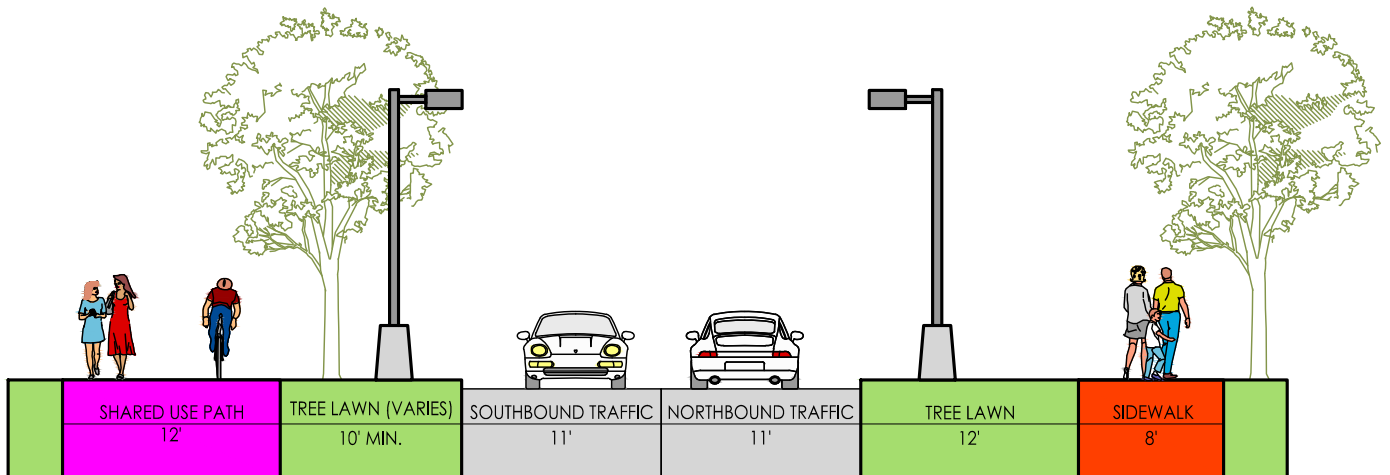
SECTION 3: MORAN RD., ALTERNATIVE 2



SECTION 4: MARVIN SANDS DR., EXISTING CONDITIONS



SECTION 4: MARVIN SANDS DR., ALTERNATIVE 1

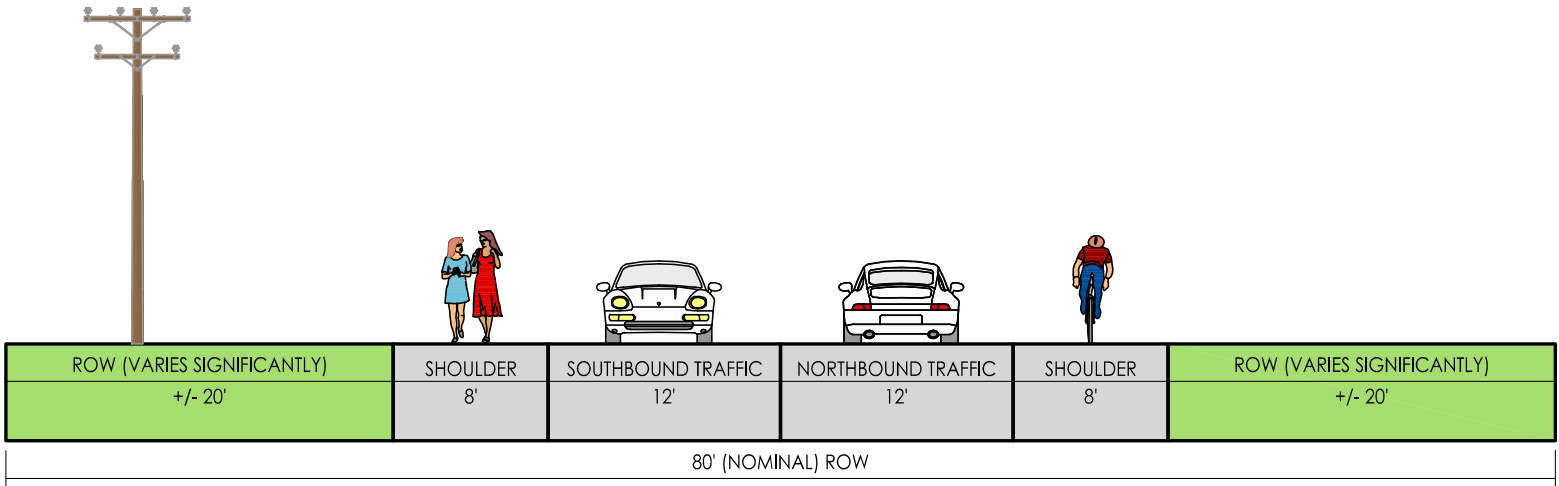


SECTION 4: MARVIN SANDS DR., ALTERNATIVE 2

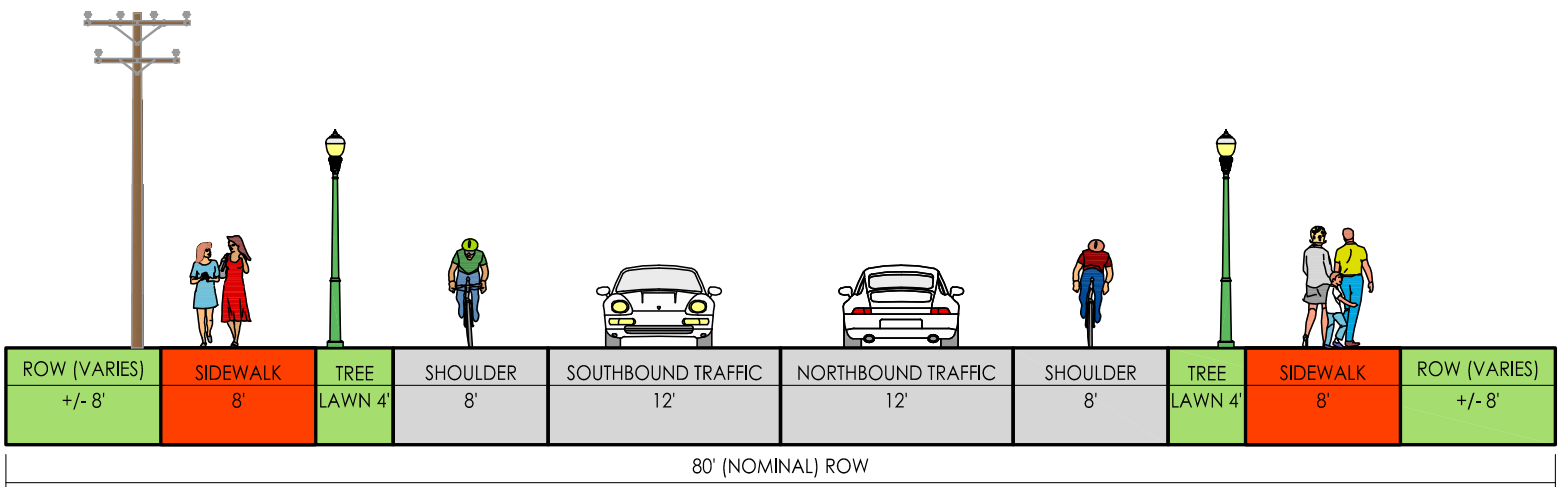


Appendix F:

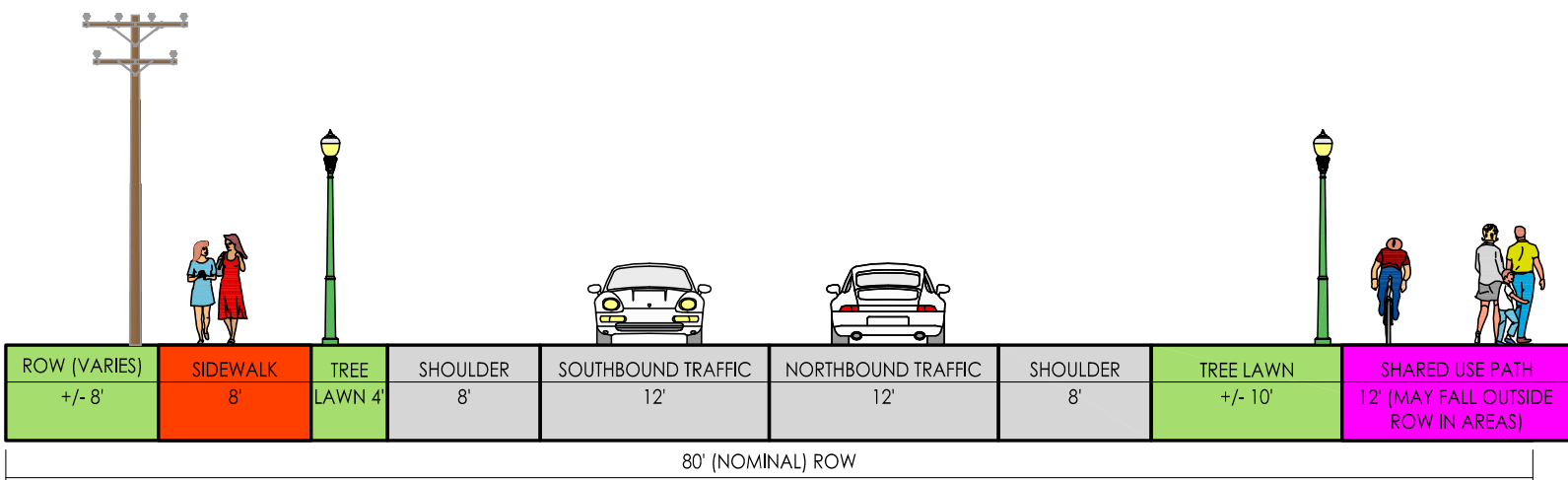
Recommendations Materials



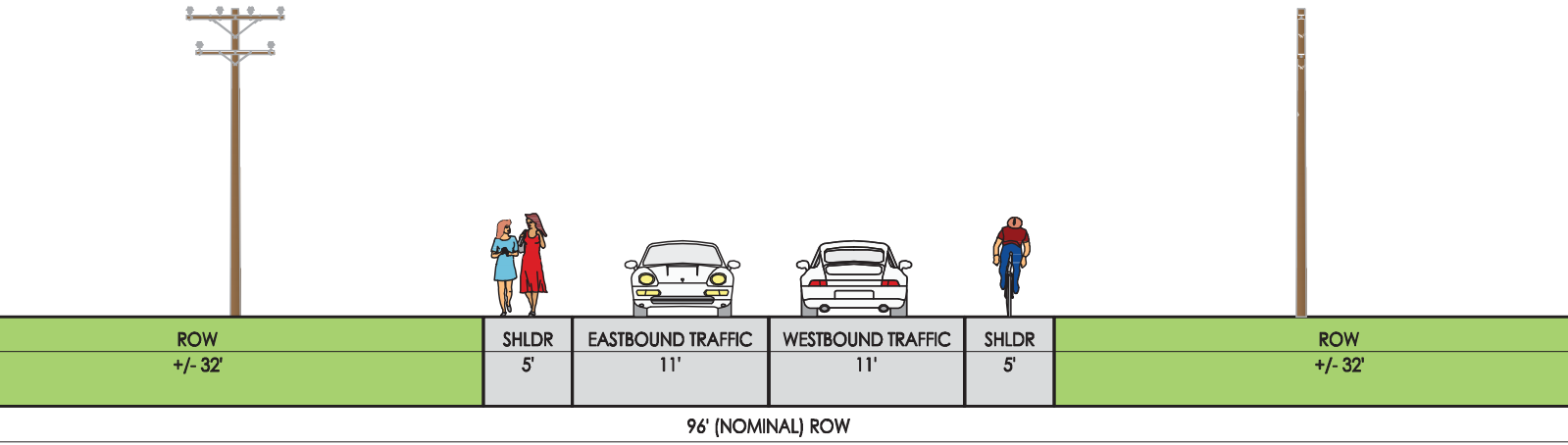
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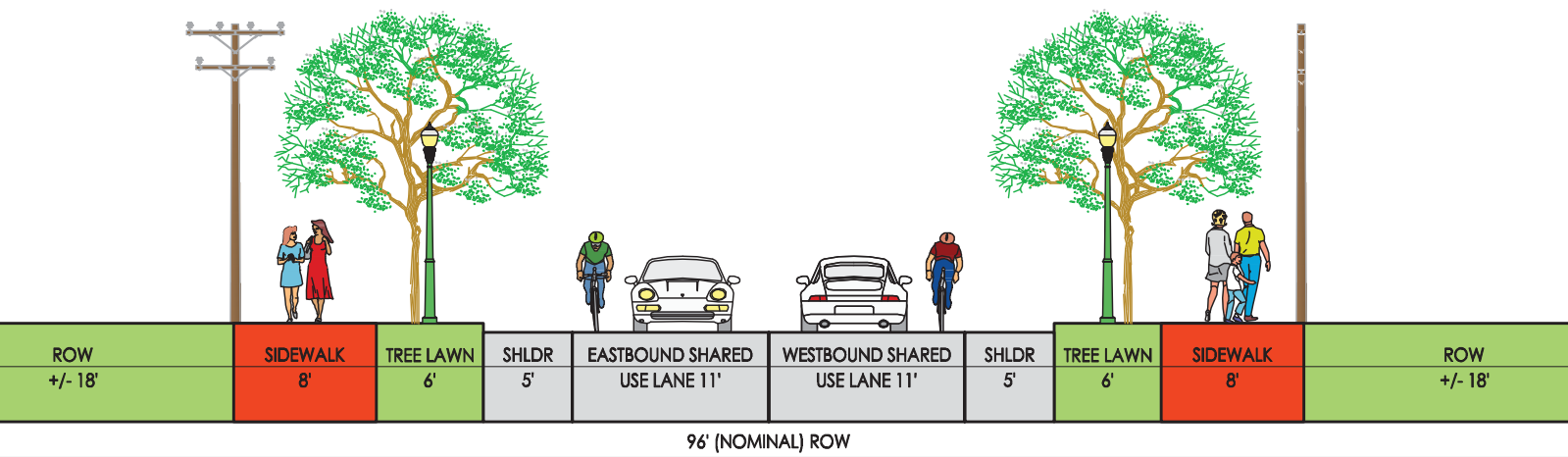
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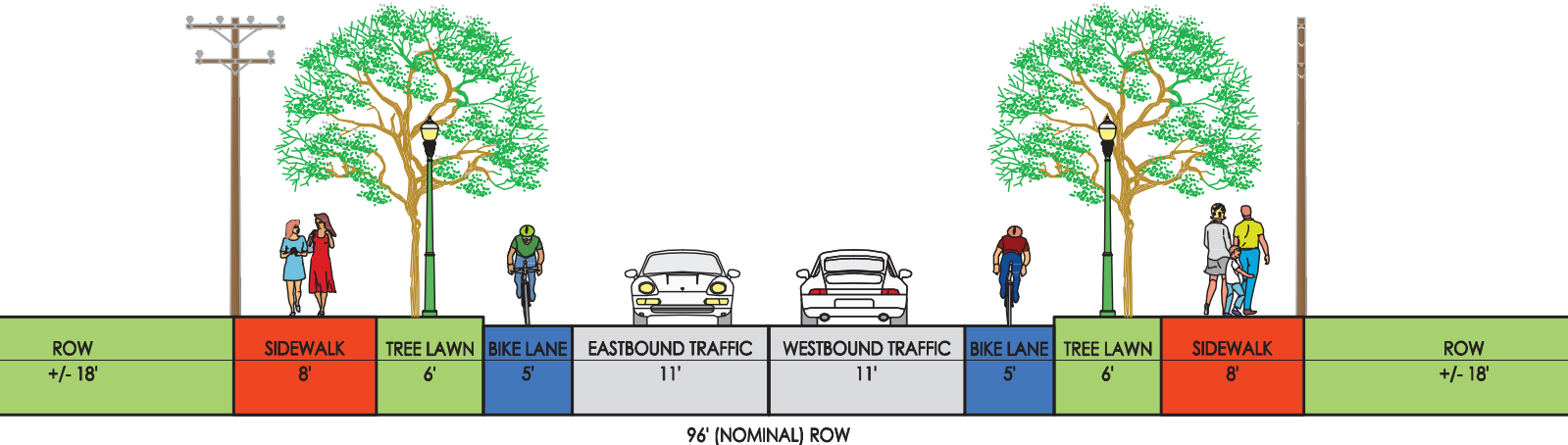
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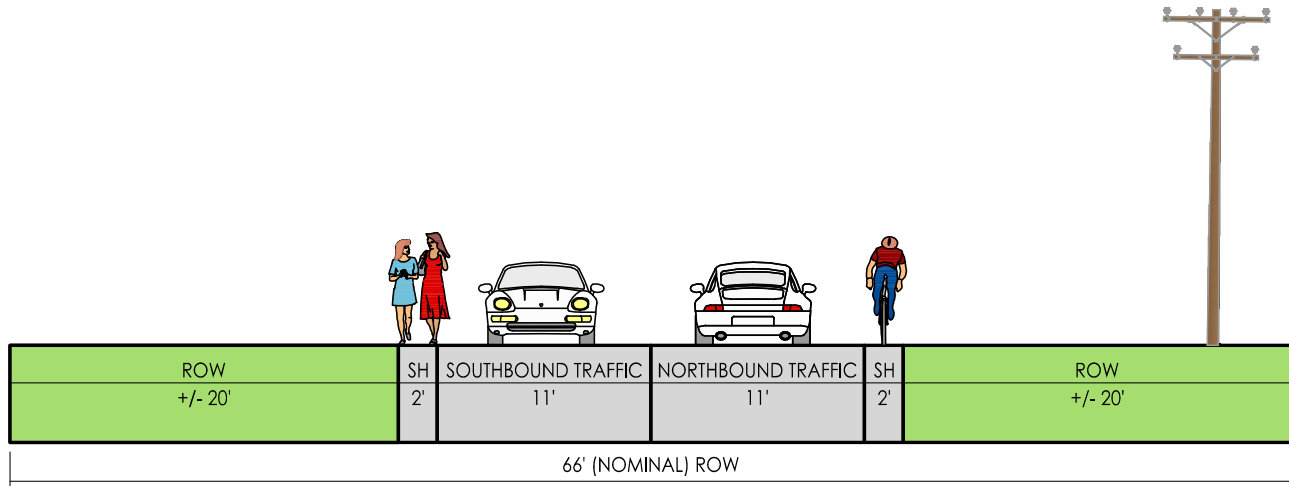
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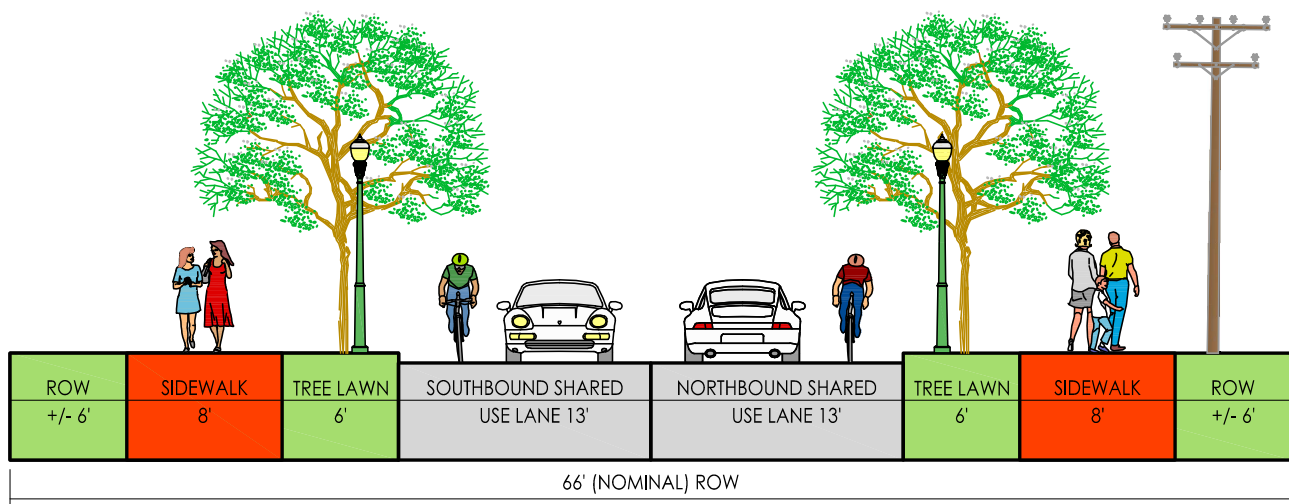
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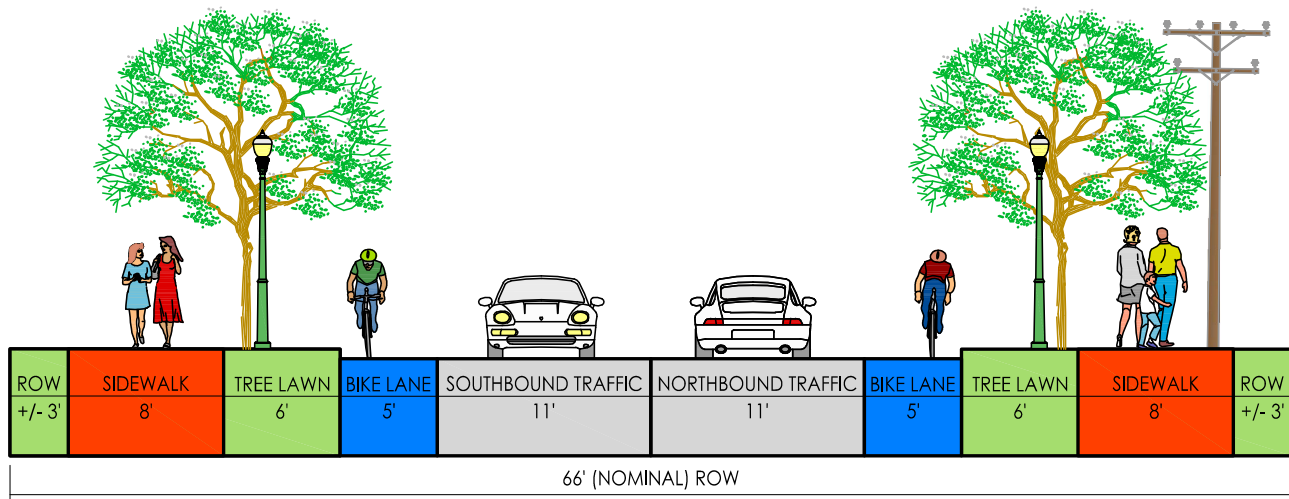
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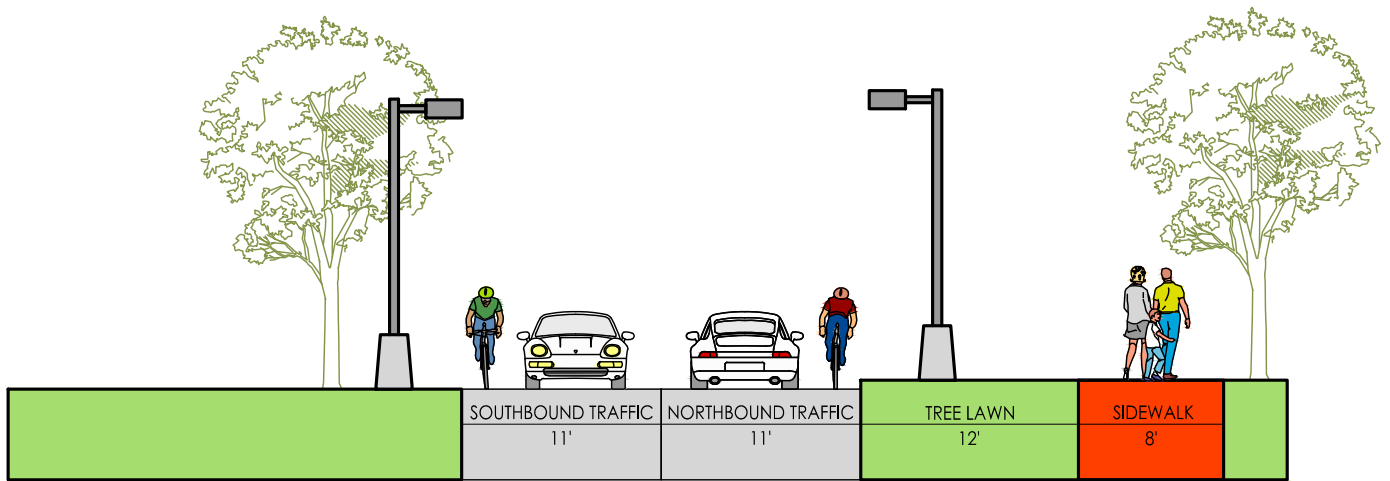
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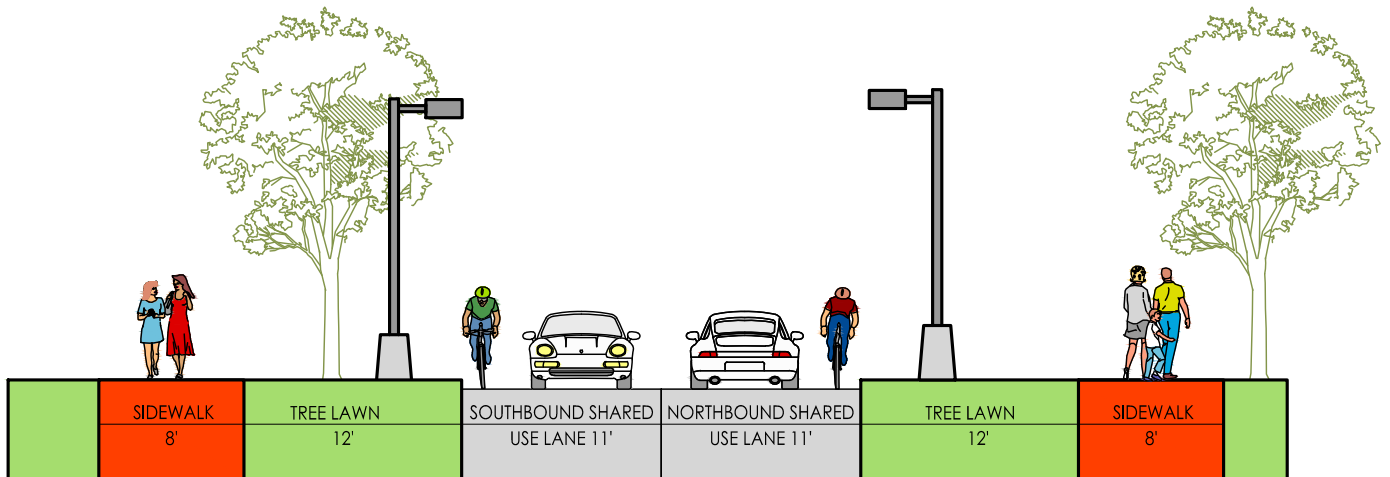
SECTION 3: MORAN RD., ALTERNATIVE 1



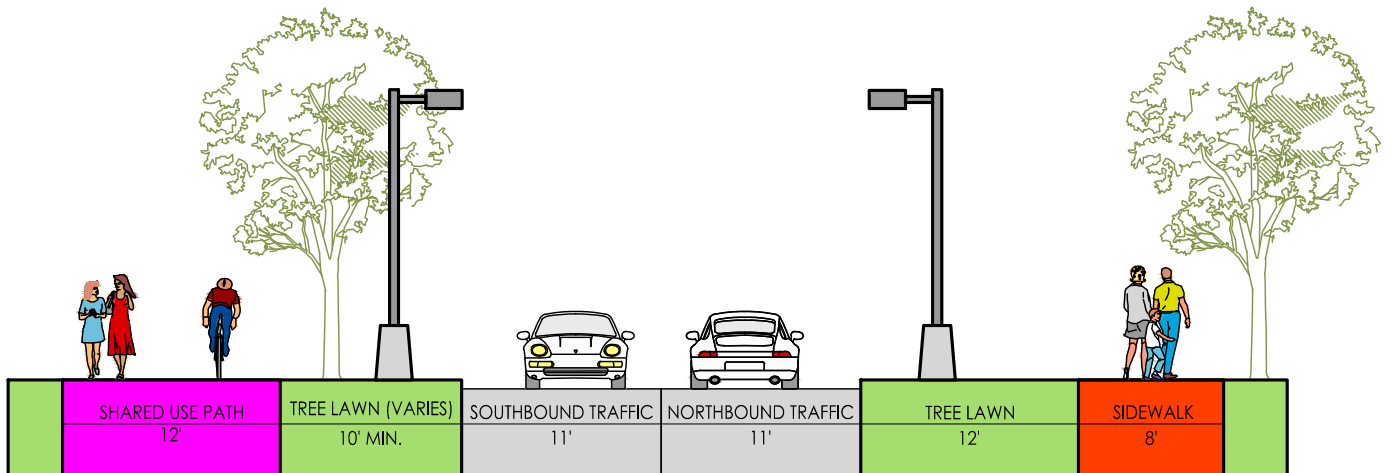
SECTION 3: MORAN RD., ALTERNATIVE 2



SECTION 4: MARVIN SANDS DR., EXISTING CONDITIONS



SECTION 4: MARVIN SANDS DR., ALTERNATIVE 1



SECTION 4: MARVIN SANDS DR., ALTERNATIVE 2

Reconstruction costs (per linear foot)

- 2012/2013 Costs from NYSDOT Pay Item Catalog and other recent project bid:
- Pavement cross-section (12' travel lanes, 5' bike lanes):
 - 1.5" asphalt top
 - 2" asphalt binder
 - 6" asphalt base
 - 12" subbase
- Sidewalk cross-section (8' width):
 - 4" concrete
 - 6" subbase
 - 8' width
- Does not include the following:
 - Drainage structures
 - Erosion control
 - Work zone protection
 - Mobilization
 - Signage/stripping
 - Utilities
 - Landscaping
 - Contingencies

Note:

Unit costs are based on 12' travel lanes
- 11' travel lanes were preferred but costs were not adjusted

Pavement		includes 2-12ft lanes and 2-5ft bike lanes
Top Course	\$ 24.00	
Binder Course	\$ 30.00	
Base Course	\$ 84.00	
Subbase	\$ 52.00	
Excavation	\$ 36.00	
Underdrain	\$ 35.00	
Curb		includes both sides
Granite	\$ 60.00	
Grass Strip		includes both sides
Turf	\$ 0.50	
Top soil	\$ 4.00	
Sidewalk		includes one side
Concrete	\$ 35.00	
Subbase	\$ 12.00	
Excavation	\$ 7.00	
	\$ 433.50	
Say	\$ 440.00	per linear foot

Lakeshore (both sides):	
3000 ft length of roadway	
\$ 440.00	per linear foot of roadway
\$ 1,320,000.00	reconstruction
\$ 240,000.00	lighting
\$ 13,200.00	signage
\$ 33,200.00	stripping
\$ 60,000.00	enhanced crosswalks
\$ 90,000.00	trees
\$ 1,756,400.00	Total

Moran (both sides)	
900 ft length of roadway	
\$ 440.00	per linear foot of roadway
\$ 396,000.00	reconstruction
\$ 72,000.00	lighting
\$ 1,000.00	signage
\$ 9,800.00	stripping
\$ 27,000.00	trees
\$ 505,800.00	Total

Costs for new sidewalk (separate from reconstruction)

Lakeshore (both sides):	
3000 ft per side	
\$ 54.00	per linear foot of sidewalk
\$ 324,000.00	
Moran (both sides):	
900 ft per side	
\$ 54.00	per linear foot of sidewalk
\$ 97,200.00	
Marvin Sands (west side):	
4500 ft west side from Lakeshore to RT 364	
\$ 54.00	per linear foot of sidewalk
\$ 243,000.00	
RT 364 (both sides) from Lakeshore to RTS 5/20:	
1400 ft per side	
\$ 54.00	per linear foot of sidewalk
\$ 151,200.00	
RT 364 (both sides) from Lakeshore to Marvin Sands:	
2400 ft per side	
\$ 54.00	per linear foot of sidewalk
\$ 259,200.00	
RT 364 (one side) from Lakeshore to Marvin Sands:	
2400 ft west side from Lakeshore to Marvin Sands	
\$ 54.00	per linear foot of sidewalk
\$ 129,600.00	
RT 364 (both sides) from Marvin Sands to CR 18:	
840 ft per side	
\$ 54.00	per linear foot of sidewalk
\$ 90,720.00	
Around G lot	
1500 ft	
\$ 54.00	per linear foot of sidewalk
\$ 81,000.00	

Costs for new shared-use path (separate from reconstruction)

Shared-use path on the east side of RTS 364, along the north and west side of Marvin Sands to Lakeshore

12 ft wide	
3" asphalt top	\$ 17.00
6" subbase	\$ 8.50
Excavation	\$ 5.50

Total shared-use path cost \$ 31.00 per foot of path











Marvin Sands

4500 ft west side from Lakeshore to RT 364	
\$ 31.00	per linear foot of path
\$ 139,500.00	
doesn't include cost of easements	

RT 364

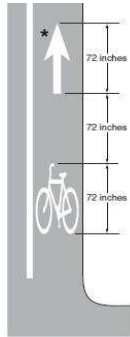
2400 ft east side on RT 364 to Marvin Sands:	
\$ 31.00	per linear foot of path
\$ 74,400.00	
doesn't include cost of easements	

	Dimensions (in)		Area (SF)
 W11-1*	30	30	2.3
 W11-15*	30	30	2.3
 W11-2*	30	30	2.3
 W16-7P	24	12	2
 W16-9P	24	12	2
 R8-3	24	24	4
 R3-17	24	18	3
 W16-1P*	18	24	3

Key Number	Sign Description	Total Area	Cost per SF	# Posts	Cost per post	Cost per sign
1	 W11-1*  W16-1P*	5.3	\$ 40.00	1	\$ 200.00	\$ 420.00
2	  R8-3	7	\$ 40.00	1	\$ 200.00	\$ 480.00
3	 W11-2*  W16-7P or  (100ft ahead) W16-9P	4.3	\$ 40.00	1	\$ 200.00	\$ 380.00
3	 W11-15*  W16-7P or  W16-9P	4.3	\$ 40.00	1	\$ 200.00	\$ 380.00

Bike Lanes (with reconstruction costs)

White lane line	\$ 2.50 \$/ft
Bike symbol	\$ 200.00 ea
Arrow	\$ 200.00 ea



A - Bike Symbol

Lakeshore	Units	Cost
Length	3000 ft	
Length of striping	6000 ft	\$ 2.50
# of Locations	8	
# of Symbols	16	\$ 200.00
Total Cost of Bike Lane Striping		\$ 18,200.00

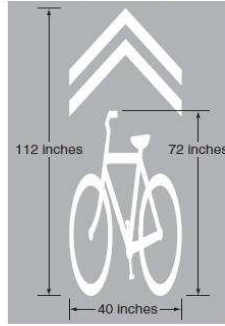
Moran	Units	Cost
Length	900 ft	
Length of striping	1800 ft	\$ 2.50
# of Locations	2	
# of Symbols	4	\$ 200.00
Total Cost of Bike Lane Striping		\$ 5,300.00

Marvin Sands	Units	Cost
Length	4500 ft	
Length of striping	9000 ft	\$ 2.50
# of Locations	8	
# of Symbols	16	\$ 200.00
Total Cost of Bike Lane Striping		\$ 25,700.00

Shared Lanes (Sharrow) - no reconstruction

Sharrow marking	\$ 200.00 ea
Assume marking (2 symbols) every 250 ft	

Figure 9C-9. Shared Lane Marking



Lakeshore	Units	Cost
Length	3000 ft	
# of Locations	12 per side	
# of Symbols	24 total	\$ 200.00
Total Cost of Sharrow Striping		\$ 4,800.00

Moran	Units	Cost
Length	900 ft	
# of Locations	4 per side	
# of Symbols	8 total	\$ 200.00
Total Cost of Sharrow Striping		\$ 1,600.00

Marvin Sands	Units	Cost
Length	4500 ft	
# of Locations	18 per side	
# of Symbols	36 total	\$ 200.00
Total Cost of Sharrow Striping		\$ 7,200.00

Center lane striping (with reconstruction costs)

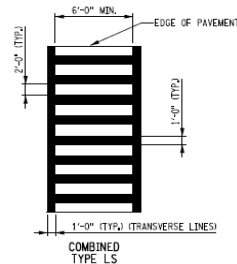
Yellow striping line	\$ 2.50 \$/ft
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Lakeshore	Units	Cost
Length	3000 ft	
Length of striping	6000 ft	\$ 2.50
Total Cost of Center Line (double yellow) Striping		\$ 15,000.00

Moran	Units	Cost
Length	900 ft	
Length of striping	1800 ft	\$ 2.50
Total Cost of Center Line (double yellow) Striping		\$ 4,500.00

Marvin Sands	Units	Cost
Length	4500 ft	
Length of striping	9000 ft	\$ 2.50
Total Cost of Center Line (double yellow) Striping		\$ 22,500.00

Crosswalk Striping (Type LS)



Assume crosswalk is	40 ft long
Edge lines:	3 passes (4" ea) 40 ft long 2 sides 240 feet of striping
Ladders:	40 ft long 3 ft spacing 14 # of ladders 3 passes (4" ea) 6 ft long 252 feet of striping
Total:	492 feet of striping \$ 2.50 cost \$ 1,230.00 per 40ft crosswalk

Enhanced crosswalk



<http://www.streetprint.com/pages/project-gallery>

Assume crosswalk is	40 ft long 6 ft wide 240 SF \$ 25.00 per SF \$ 6,000.00 per 40 ft crosswalk
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Assumptions:

- Replacing signal heads and re-wiring cabinet
- No replacement of span wire, conduit, loops, etc
- Does not include work zone traffic control

Intersections of RTS 5/20 with RT 364

	# of New Modules	# of New Sections	# of New Bracket Assemblies	# of new Disconnect Hangars	Remove Traffic Signal Head	Rewire Cabinet for Flashing Yellow Arrow	
Install Flashing Yellow Arrow signal heads in the center of left turn lanes on RTS 5/20	8	8	2	2	1		
Replace 5 signal head with typical 3 signal head in center through lane	6	6	2	2	2		
Total	14	14	4	4	3	1	
Costs	\$ 120.00	\$ 200.00	\$ 250.00	\$ 500.00	\$ 500.00	\$ 2,000.00	
Total Costs	\$ 1,680.00	\$ 2,800.00	\$ 1,000.00	\$ 2,000.00	\$ 1,500.00	\$ 2,000.00	\$ 10,980.00

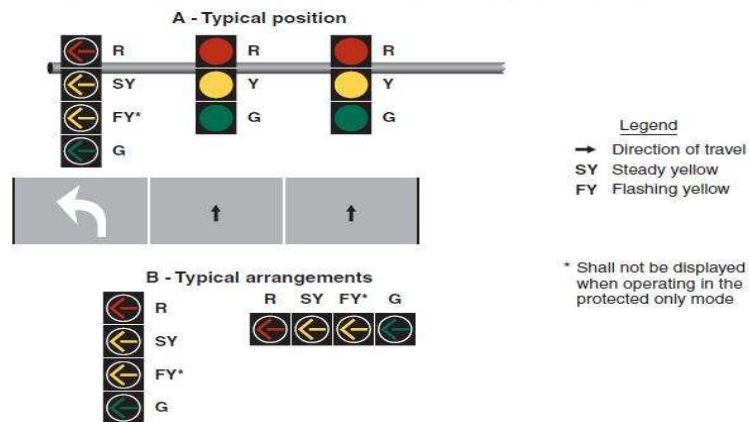
Intersections of RTS 5/20 with CR 10/Moran Rd

	# of New Modules	# of New Sections	# of New Bracket Assemblies	# of new Disconnect Hangars	Remove Traffic Signal Head	Rewire Cabinet	
Install Flashing Yellow Arrow signal heads in the center of left turn lanes on RTS 5/20	8	8	2	2	1		
Replace 5 signal head with typical 3 signal head in center through lane	6	6	2	2	2		
Total	14	14	4	4	3	1	
Costs	\$ 120.00	\$ 200.00	\$ 250.00	\$ 500.00	\$ 500.00	\$ 2,000.00	
Total Costs	\$ 1,680.00	\$ 2,800.00	\$ 1,000.00	\$ 2,000.00	\$ 1,500.00	\$ 2,000.00	\$ 10,980.00

2009 Edition

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Figure 4D-12. Typical Position and Arrangements of Separate Signal Faces with Flashing Yellow Arrow for Protected/Permissive Mode and Protected Only Mode Left Turns



Pedestrian-level lighting

Lakeshore	Units		Cost
Length	3000	ft	
Spacing	100	ft	\$ 4,000.00
# of Lights/side	30		
# of Lights	60		
Lakeshore lighting cost \$ 240,000.00			

Moran	Units		Cost
Length	900	ft	
Spacing	100	ft	\$ 4,000.00
# of Lights/side	9		
# of Lights	18		
Moran lighting cost \$ 72,000.00			

Marvin Sands	Units		Cost
Length	7900	ft	
Spacing	100	ft	\$ 4,000.00
# of Lights	79		
Marvin Sands lighting cost \$ 316,000.00			

It is assumed lighting will be needed along most of the path with supplemental lights adjacent to G lot



Picture from the west end of Lakeshore - outside of study area

RT 364	Units		Cost
Total Length	8440	ft	
Spacing	100	ft	\$ 4,000.00
# of Lights	85		
RT 364 lighting cost \$ 340,000.00			

length includes both sides of RT 364 between RTS 5/2

Street/Intersection-level lighting

RTS 5/20	Units		Cost	
Length	1600	ft		
Spacing	200	ft	\$	5,000.00
# of Lights/side	8			
# of Lights	16			
RTS 5/20 lighting cost			\$	80,000.00

Intersections	Units		Cost	
# of intersections	2		\$	5,000.00
# of Lights/intersection	2			
# of Lights	4			
Intersection lighting cost			\$	20,000.00

Intersections:

Lakeshore/Moran
Lakeshore/Marvin Sands

Assumptions:

\$2500 per pole
\$1000 per base
\$1500 for service, conduits & controls
Say \$ 5,000.00 each



Trees

Lakeshore	Units		Cost	
Length	3000	ft		
Spacing	50	ft	\$	750.00
# of Trees/side	60			
# of Trees	120			

Lakeshore tree cost \$ 90,000.00

Moran	Units		Cost	
Length	900	ft		
Spacing	50	ft	\$	750.00
# of Trees/side	18			
# of Trees	36			

Moran tree cost \$ 27,000.00

Assumptions:

2.5 - 3" caliper trees (14-16' tall)

Cost \$ 750.00 ea

spacing = 50'



bollard with chain
bollard

\$ 600.00 ea + installation

Spacing

10 ft
3 ft

low high

\$ 400.00 \$ 1,000.00

Post with Chain

Marvin Sands - G lot

	Units	Cost
Length	1500 ft	
Spacing	10 ft	\$ -
# of posts	150	\$ 2.20 each
eye bolts	150	\$ 3.50 ft
chain	1500	
	Low	\$ 65,580.00
	G Lot barrier cost	\$ 95,580.00
	High	\$ 155,580.00

Ornamental bollard

Marvin Sands - G lot

	Units	Cost
Length	1500 ft	
Spacing	3 ft	\$ 600.00
# of posts	500	
	Low	\$ 200,000.00
	G Lot barrier cost	\$ 300,000.00
	High	\$ 500,000.00

<http://www.reliance-foundry.com/>

Post & rail fence

<http://www.costowl.com/home-improvement/fencing-wood-cost.html>

average costs \$ 30.00 per linear foot
\$ 45,000.00



Fence

delays.

Average Fence Prices:

FENCE TYPE	COST PER FOOT
Chain link fence	\$6-8
Wood - 4' tall	\$9
Wood - 6' tall	\$15
Vinyl	\$20
Wrought iron	\$20-30

maybe up to \$30
with installation

<http://www.landscapingnetwork.com/fencing/cost.html>

length 1500 ft
assume 6' tall wood \$ 15.00 per ft
installation \$ 600.00 per 100 ft of fence
installation \$ 9,000.00
RTS 5/20 fence cost with installation \$ 31,500.00

at \$30/ft
\$ 45,000.00



Bike racks on buses:

http://www.sportworks.com/products/transit_racks/

holds 2-3 bikes

price range = \$ 800.00 low
\$ 1,200.00 high



Shelters:

Prices vary:

<http://www.globalindustrial.com/p/safety/parking-lot/bike-racks/bike-storage-shelter>

\$1,400



<http://www.parkabike.com/Outdoor-bike-parking-shelters>



cost approx \$1500 per bike accommodated



up to \$12,000 for more custom designs

Racks: <http://www.belson.com/urbr.htm>



Model U190-SF-P

\$300 - \$400



Model U238-6-P

\$300 - \$1900

price varies based on materials chosen and number of loops

Lockers: <http://www.belson.com/urbr.htm>



8 Units Shown | Silver Gray



8 Units Shown | Silver Gray

Approx \$2000 for each unit (1 bike) for both options shown



Appendix G

NYSDOT Review Letter



STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
REGION FOUR
1530 JEFFERSON ROAD
ROCHESTER, NEW YORK 14623-3161
www.dot.ny.gov

ROBERT A. TRAVER, P.E.
ACTING REGIONAL DIRECTOR

JOAN McDONALD
COMMISSIONER

June 26, 2013

Ms. Kimberly Fabend
C & S Engineers, Inc.
499 Col. Eileen Collins Blvd.
Syracuse, NY 13212

Re: Routes 5/20 and Route 364
Multi-Modal Safety & Access
Improvement Study
Ontario County

Dear Ms. Fabend:

We have completed our review of the June, 2013 Draft Final Report for the subject project. In general we concur with the recommendations in the report and have the following comments clarifying our position or concerns:

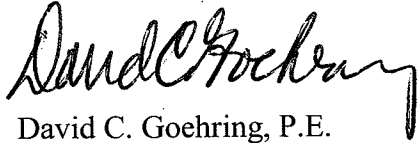
1. We have no objections with the recommendations to install sidewalk, bicycle lanes/shared use paths and lighting (intersection level and pedestrian level) in the study area.
2. We concur with the recommendation to realign/add traffic signal heads at the intersections of Routes 5/20 with Route 364 and County Route 10. This intersection is an ideal location to install the flashing yellow indication for left turns. Sometime in the future we will be adding these indications to this intersection and others along the corridor with similar geometry.
3. We concur with the recommendation to add crosswalks at certain locations on Routes 5/20 and Route 364. We typically reserve ladder crosswalks at unsignalized intersections (such as the Route 364 and Marvin Sands Drive intersections) or mid block crossings where motorists need to yield to pedestrians but otherwise have the right of way. Traditional long line crosswalks are typical at signalized and stop controlled approaches where motorists and pedestrians are controlled by the appropriate traffic control device.
4. We have no objections to the recommendation to install a permanent barrier (fencing) along the south side of Routes 5/20, between County Road 10 and Lakeshore Drive if it is off the state right-of-way. The department would need to take a much closer look at any proposal to install a barrier on state right-of-way.

Ms. Kimberly Fabend
June 26, 2013
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5. We are open to proposed traffic flow improvements on Route 364 at County Route 10. However more detail is needed on how temporary dual lefts on the southbound approach would be implemented. As with any work within state right-of-way, any changes to existing traffic patterns or markings will require our concurrence and a highway work permit.

If there are any questions regarding our review please contact Mr. Robert Duennebacke at 585-272-3475.

Very truly yours,



David C. Goehring, P.E.
Regional Traffic Engineer

DCG/RLD/bap

- c: T. McElligott, Ontario County
D. Hallowell, Planning and Program Management
G. Kerrick, Resident Engineer, Ontario County
J. Frank, Permit Review Group