



Alternatives to Improve Circulation, Parking, Safety and Aesthetics Route 39 / North Street / Court Street Corridor Geneseo, New York

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Stuart I. Brown Associates, Inc.

Planning and Management Consultants

A Division of LaBella Associates, P.C.

LABELLA
Associates, P.C.

GENESEE TRANSPORTATION COUNCIL

Geneseo

Alternatives to Improve Circulation, Parking, Safety and Aesthetics Route 39/North Street/Court Street Corridor

Prepared for:

Village Of Geneseo
119 Main Street
Geneseo, NY 14454

Steering Committee

Sandra Brennan, Village of Geneseo

Angela Ellis, Livingston County Plan. Office

Julie Gotham, Genesee Transportation Council

Richard Hatheway, Village of Geneseo

Donna Kelsey, Downtown Geneseo

Marvin Kleinberg, NYS Dept. of Transportation

Bill Lofquist, Citizen Member

Lisa Ryan, Geneseo Central Schools

George Stooks, SUNY Geneseo

William Wadsworth, Town of Geneseo

Prepared by:

Stuart I. Brown Associates
A Division of LaBella Associates
300 State Street, Suite 201
Rochester, NY, 14614
www.labellapc.com

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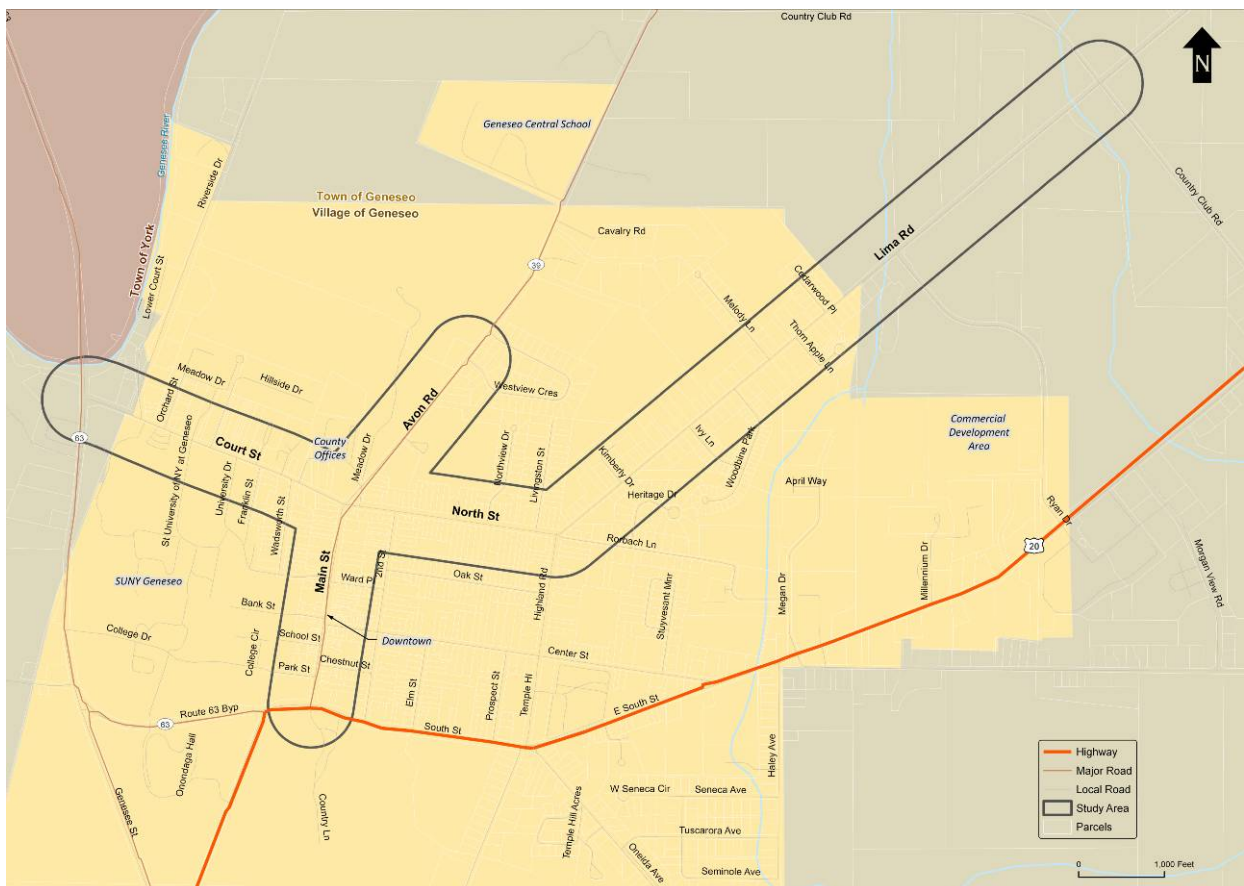
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Executive Summary

In the fall of 2008 the Village of Geneseo engaged the team of Stuart I. Brown Associates and LaBella Associates to develop design and regulatory alternatives to improve circulation, parking, safety and aesthetics along the Route 39 / North Street / Court Street corridor. A steering committee of 10 individuals representing the Village and study area stakeholders was convened and an initial meeting was held in October 2008. Funds to complete the study were provided through the Unified Planning Work Program (UPWP) administered by the Genesee Transportation Council (GTC). The Study Area, as shown in the figure below, includes Main Street, Court Street, North Street, and sections of Avon and Lima Roads.



Study Area

Existing Conditions & Public Input

A review and evaluation of existing conditions, plans and regulations was the first task completed by the Steering Committee. An initial and relevant finding that emerged upon review of the data is that the Geneseo area is growing on many fronts:

- Population in the Geneseo Area grew by four percent between 1990 and 2000 and is expected to grow another seven percent over the next 10 years.
- Employment in the area grew by 17 percent between 1998 and 2006.
- Building Permit activity, especially in the Village and communities adjacent to the Village, was brisk. The Towns of Livonia, Avon and Geneseo all issued more than 100 residential building permits between 2000 and 2007.

Population, employment and housing market growth all have an impact on the generation of traffic within the corridor.

Area commuters also placed demands on the transportation network in the corridor. Between 1980 and 2000, the number of Livingston County residents working outside the County has roughly doubled. While two out of three Livingston County residents worked in Livingston County in 1980, only one out of two residents worked in the County in 2000.

The impacts of traffic growth are felt primarily at the Court Street / North Street / Main Street intersection within the corridor. The afternoon levels of service (a measurement of vehicle delay at intersections), for the Court and North Street approaches to the intersection are failing and accidents rates there are above the statewide average.

The Main Street / Park Street intersection, about 2,000 feet south of the Court Street / North Street / Main Street intersection, is also failing. This intersection serves as a principal vehicular entrance (and exit) for the State University of New York at Geneseo (SUNY Geneseo) campus from Main Street.

Vehicular traffic in Geneseo must share the roads with a significant number of pedestrians. More than 1/3rd of Village of Geneseo residents walk to work or school. Based on actual pedestrian counts, the majority of the pedestrians in the study area cross at the Main and Center Streets intersection. Pedestrians also heavily use other Main Street intersections as well as Court Street intersections. A recently completed Pedestrian Committee Report recommended the installation of additional crosswalks and the completion of an integrated, continuous sidewalk network throughout the community which would include connections to the emerging community trail system.

To complement and extend the pedestrian network, Geneseo is fortunate to have an efficient and well utilized bus system operated by the Livingston Area Transportation System (LATS). Between 2003 and 2008, ridership on buses operated by LATS increased by more than 100,000.

Perhaps due to the impressive multi-modal network in Geneseo the demand for parking is not critical in the Main Street business district. A survey of on street and off street parking areas adjacent to Main Street revealed that during peak times (late morning & afternoon), there was a healthy vacancy of approximately 30 percent. However, there were only four parking spots for bicycles in downtown Geneseo.

Support for the multi-modal network is provided by the recently completed Comprehensive Plan and revised Zoning regulations. Both documents reinforce the community's desire to enhance the multi-modal network and preserve the small town character of the community.

The small town character that the community wants to preserve is exceptional. Main Street's pedestrian oriented urban form is characterized by angled parking, frequent crosswalks, attractive human scaled buildings, a fountain and a historic County Courthouse that provides northbound Main Street travelers an attractive visual termination.

However, east of the courthouse, the condition of the North Street roadway is not acceptable. The pavement condition in many areas is poor, exposed swales provide drainage and there are no defined edges to the street.

A Community Workshop and Survey reinforced the findings of the existing conditions analysis. Workshop and survey participants wanted to enhance the Village's pedestrian network, improve the Court/North/Main Street intersection, upgrade North Street's condition and preserve the character of Main Street.

Issues and Opportunities

The most significant issues and opportunities to emerge upon review of the existing conditions and public input were:

- The need for sidewalks in the Village and Town of Geneseo on the west side of Lima Road between Kimberly Drive and Country Club Road, on the east side of Lima starting approximately four houses south of Volunteer Road to Country Club Road and on the west side of Avon near the Courthouse.
- Safety, circulation and aesthetic improvements at the following intersections:
 - o Court St./North St./Main St.
 - o Center St./Bank St./Main St.
 - o Park St./Main St.
 - o Route 20A/Main St.
- Aesthetic and safety improvements (to slow down traffic) on North Street.
- Maintaining the view of the Courthouse for northbound travelers along Main Street and the view of the Valley west along Court Street.
- Intersection visibility, especially on the west side of Main Street where side streets are on a slope.
- Reducing speeds for travelers entering the Village on Lima Road

- Increasing lighting levels on Court Street and Main Street, especially near pedestrian crosswalks.
- Opportunities to upgrade the gateways at Lima and Volunteer, Route 20A and Main Street, and Route 63 and Court Street.

Alternatives Development for Intersections and Roadways

Prior to developing recommendations for problem intersections and roadway segments, an analysis of potential intersection and roadway configurations was performed. Alternatives for the Court/North/Main intersection were evaluated based on future levels of service and impacts on safety, bicyclists, pedestrians, aesthetics and cost. Based on the intersection evaluation, two acceptable alternatives included installation of a traffic signal and a roundabout.

Several roadway alternatives for North Street were also considered. Among the acceptable alternatives was the expansion of the parkway (boulevard) on the south side of North Street that did not involve any major reconstruction.

Other acceptable roadway alternatives for North Street involve the elimination of the drainage swale with an enclosed system to facilitate the construction of a level street cross section. This “major reconstruction” option allows several aesthetic roadway treatments that provide traffic calming benefits. One treatment entails the installation of large parkways of equal size on both sides of the street, while another introduces a median to the center of the roadway.

Recommendations

Recommendations to improve the circulation, parking, safety and aesthetics of the study area were based on a careful consideration by the steering committee of the costs and benefits of each concept. A summary of the recommended alternatives and actions are as follows:

1. Install decorative traffic signal poles and heads at the Court St./North St./Main St. intersection, along with bump outs at two of the four corners.
2. Erect a no left turn sign for northbound vehicles on Park Street at the intersection with Main Street to restrict turns during peak SUNY Geneseo workday departure times.
3. Construct a “hybrid” alternative roadway on North Street that would include large parkways and a mid block section that also includes a median.
4. Install bump outs and enhanced crosswalks at all intersections on Main Street and adjacent side streets.
5. Add pedestrian crossing signs at all intersections or key intersections on Main and Court Street, and install pedestrian warning signs prior to pedestrian crossing areas.
6. Install sidewalks on Lima and Avon roads.
7. Add a bus stop on Center Street near Main Street.
8. Add bike racks on Center and Bank Streets near Main Street.

9. Carry out streetscape improvements on Main Street including decorative lighting and the creation of a “pedestrian” zone around the bear fountain.
10. Reduce the speed limit on Lima between Country Club Road and Volunteer Road.
11. Increase lighting levels on Court Street.

An implementation table follows the recommendation section. The table outlines an implementation plan over a five year period with planning level cost estimates and potential sources of funding. The goal of the implementation table is to provide a feasible strategy tailored to funding opportunities. In short, the recommendations in this plan, and the benefits they engender, can be realized by the Village within a very short time frame with the cooperation of corridor stakeholders, elected officials and funding agencies.

1 Existing Conditions, Plans and Public Input

Prior to developing alternatives and recommendations for improvements to circulation, parking, safety and aesthetics in the corridor a review of existing conditions, plans and public input is necessary. Existing conditions includes data on demographics, area growth patterns, traffic volumes, accidents, turning movements and intersection levels of service.

While the data on existing conditions provides useful statistical information, plans such as the Town and Village Comprehensive Plans and the Village Pedestrian Plan offer policy directions for the Village. The plans are important because they provide a framework for decision-making within the corridor.

Another important source of information for decision-making is public opinion toward conditions within corridor. A summary of a community workshop held and public survey conducted as part of the study provides both factual and anecdotal information from residents, employees and other stakeholders that use the corridor.

Demographics and Growth Patterns

The population of the Village of Geneseo and the surrounding Geneseo Area (Figure 1) has been growing gradually during the recent past and is expected to continue to grow over the next fifteen years.



Figure 1. "Geneseo Area" (Source: LaBella Associates)

This is an encouraging situation for the area as most of western New York is declining in population. On the other hand, population increases and employment growth have generated additional traffic in the region which has impacted traffic conditions in the Geneseo Area.

Between 1990 and 2007, the Geneseo area's population grew by more than 1,300 people or three percent (Table 1). Population growth in the Village of Geneseo grew at a faster rate than the area at 6.6 percent during the same time period. Among all the municipalities in the Geneseo area, the Village also had the greatest increase in population, gaining 473 people over seventeen years. Interestingly, the Town of Geneseo, excluding the Village of Geneseo, had a net gain of only three persons during the same period.

Table 1. Geneseo Area Population Changes, 1990-2020

	Population				Population Changes					
	Census Count		Census Estimate	GFLRPC Projection	Change 1990-2000		Change 2000-2007		Change 2007-2020	
	1990	2000	2007	2020	Number	Percent	Number	Percent	Number	Percent
Avon Town	3,288	3,466	3,491	3,830	178	5.1%	25	0.7%	339	9.7%
Avon Village	2,995	2,977	2,913	2,999	-18	-0.6%	-64	-2.1%	86	3.0%
Conesus Town	2,196	2,353	2,361	2,546	157	6.7%	8	0.3%	185	7.8%
Geneseo Town	1,991	2,075	1,994	2,229	84	4.0%	-81	-3.9%	235	11.8%
Geneseo Village	7,187	7,579	7,660	8,195	392	5.2%	81	1.1%	535	7.0%
Groveland Town	3,190	3,853	3,503	4,023	663	17.2%	-350	-9.1%	520	14.8%
Leicester Town	1,818	1,818	1,848	1,923	0	0.0%	30	1.7%	75	4.1%
Leicester Village	405	469	439	488	64	13.6%	-30	-6.4%	49	11.2%
Lima Town	2,022	2,082	2,153	2,201	60	2.9%	71	3.4%	48	2.2%
Lima Village	2,165	2,459	2,388	2,562	294	12.0%	-71	-2.9%	174	7.3%
Livonia Town	5,370	5,913	5,670	6,365	543	9.2%	-243	-4.1%	695	12.3%
Livonia Village	1,434	1,373	1,616	1,400	-61	-4.4%	243	17.7%	-216	-13.4%
Mt. Morris, Village	3,102	3,112	2,887	3,131	10	0.3%	-225	-7.2%	244	8.5%
Mt. Morris, Town	1,531	1,455	1,519	1,439	-76	-5.2%	64	4.4%	-80	-5.3%
York Town	3,513	3,219	3,114	3,355	-294	-9.1%	-105	-3.3%	241	7.7%
Total	44,197	46,203	45,563	48,706	2,006	4.3%	-640	-1.4%	3,143	6.9%

Sources: U.S. Bureau of the Census, Genesee Finger Lakes Regional Planning Council (GFLRPC)

Figures 2 and 3 illustrate how the locations of roads in the corridor – Main Street, Court Street, North Street, Lima Road and Avon Road – are related to population changes in the Geneseo area. The corridor roads pass through or end in municipalities within the Geneseo area that are growing in population and are projected to continue to grow in population over the next 15 years. These include the Village of Geneseo and the Towns of Avon and Livonia. Increases in population are a contributing factor in traffic growth within the corridor as new residents use study area roads for shopping and traveling to work and school. The impact of population growth on traffic in the corridor is magnified in the Village and Town of Geneseo because they are the primary destinations in the area for higher education, schools, commercial services and employment.

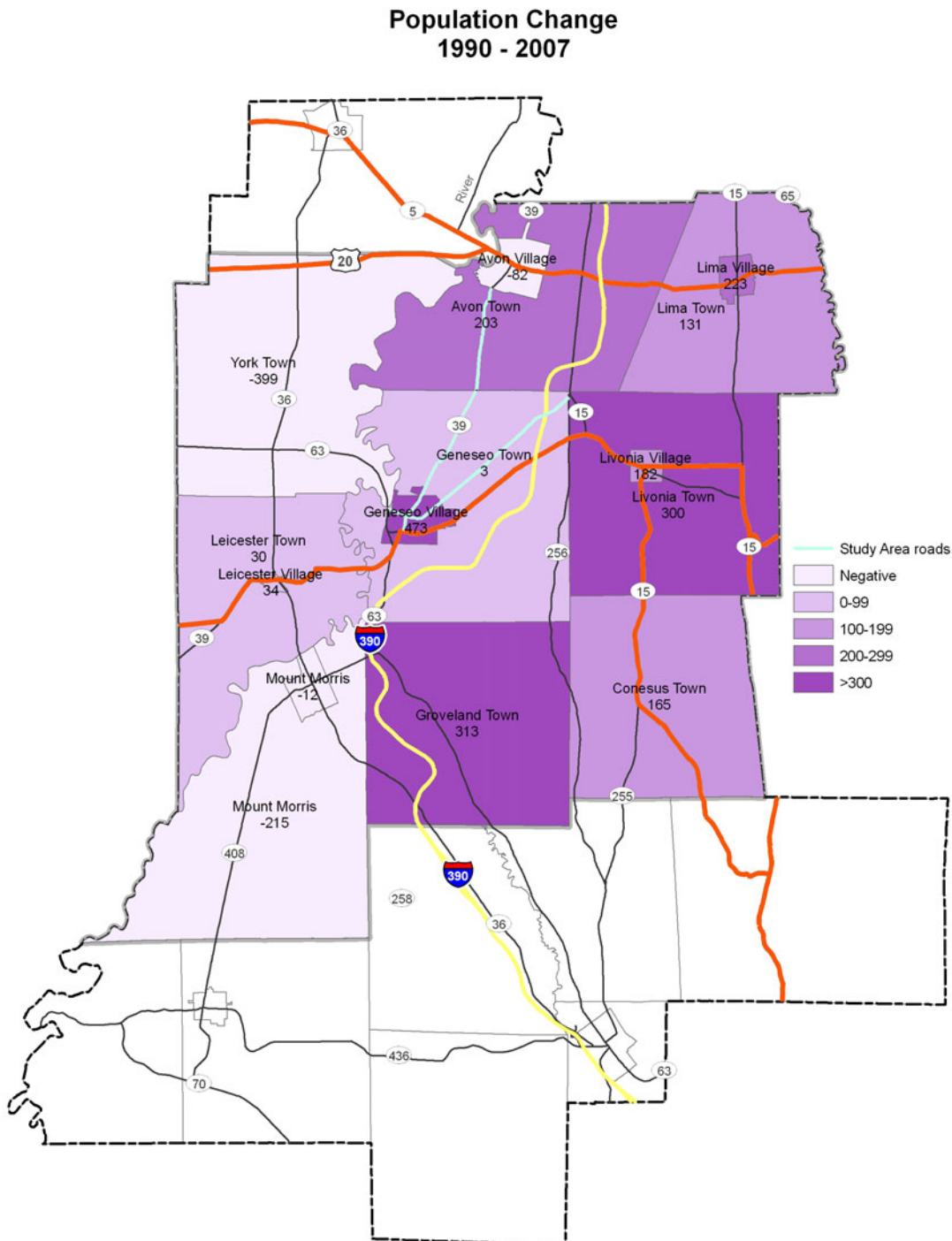
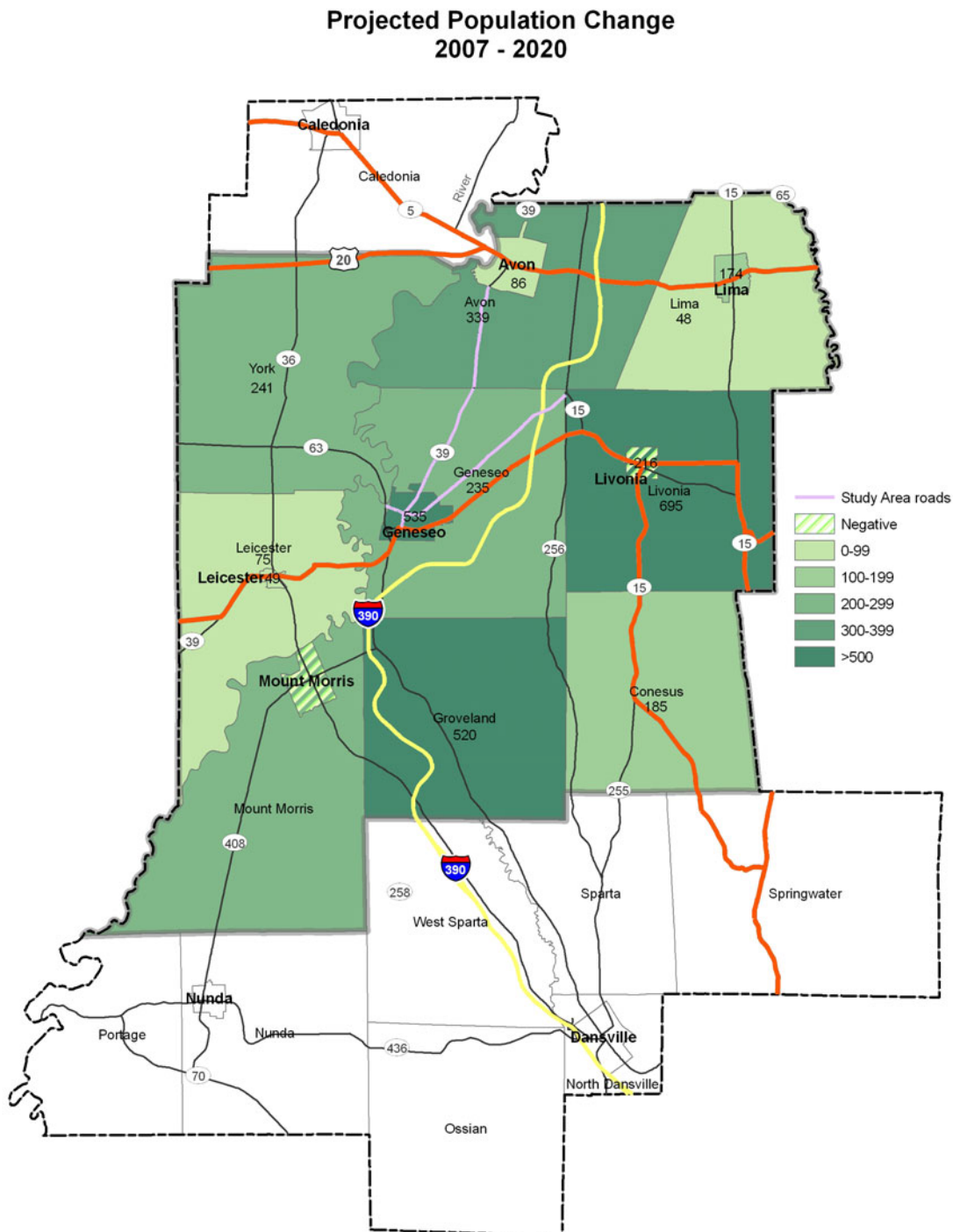


Figure 2. Population Growth in Geneseo Area Municipalities, 1990-2007 (Sources: U.S. Bureau of the Census, LaBella Associates)



Residential building permits are also be an indicator of future growth in the corridor. The trend in building permits within the Geneseo area issued between 2000 and 2007 (Figure 4) follows the population trends in the area above with one exception. The Town of Geneseo is projected to have modest population growth but has issued the third greatest number of residential building permits between 2000 and 2007 in the Geneseo area. Consequently, greater population growth than projected can also be anticipated in the Town of Geneseo if those building permits are executed. Additional growth in the Town of Geneseo will have a direct impact on traffic growth in the corridor.

Residential Building Permits Issued 2000-2007

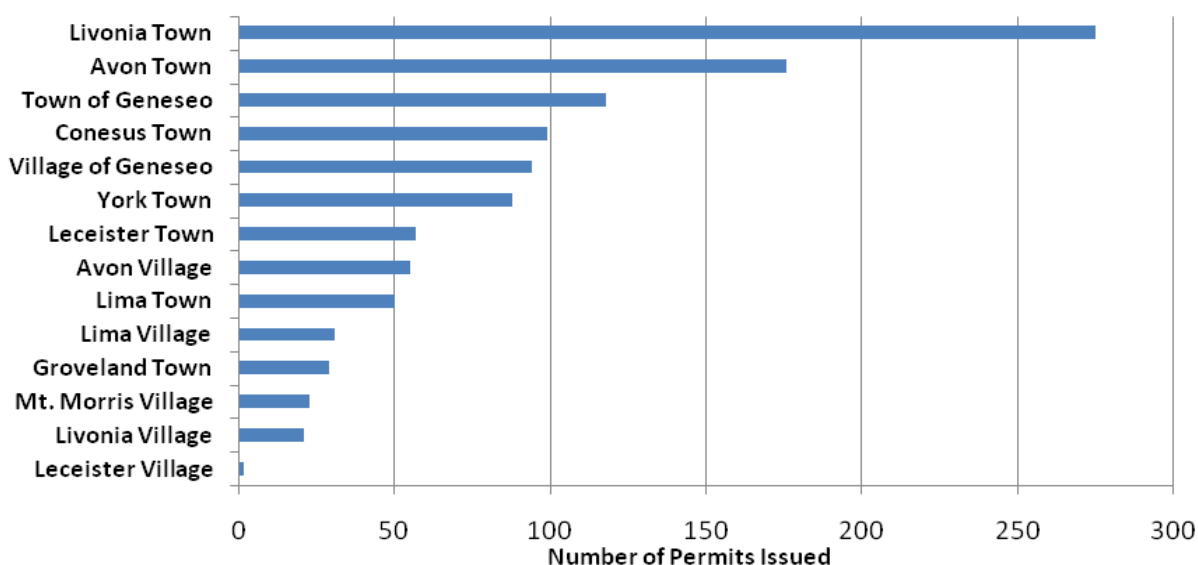


Figure 4. Growth in Residential Building Permits within the Geneseo Area, 2000-2007 (Source: Genesee Finger Lakes Regional Planning Council)

Potential Development

There are several impending development projects within the Geneseo area that could have an impact on traffic patterns within the corridor:

- *Wadsworth Property* – a portion of the large parcel south of the intersection of Route 20A and Main Street was recently rezoned from residential uses to mixed use development. Development of this property could generate additional traffic and intersection conflicts at Route 20A and Main Street.
- *SUNY Geneseo* - the college has recently completed and opened the 84 bed Seneca Hall residential building and is proposing to build a 2,000 person stadium sometime in the future. The additional beds could potentially reduce the number of vehicles in the corridor if current commuters decide to live on campus in the new facilities. SUNY

Geneseo is also considering a partnership with the YMCA to build a new fitness and recreational building on campus.

- *Commercial Development* – several commercial development projects have been proposed along Route 20A and Volunteer Road including a 170,000 sq. ft. Lowes Home Center, a Hampton Inn, a commercial plaza and a call center. These developments could generate additional traffic along 20A and Volunteer Road which could result in additional through traffic within the study corridor due to the availability of alternate routes for those attempting to avoid the congestion on 20A.

In addition, there are no major infrastructure or environmental constraints to new development within the Village. The entire Village either already has water and sewer service or is capable of receiving the service.

Employment and Commuting Patterns

Employment growth has a significant influence on traffic levels. More employees in an area increase the level of vehicular commuter trips and business trips.

According to statistics from the U.S Bureau of the Census County Business Patterns, the number of people working in the Geneseo area increased by 17 percent or 1,185 jobs between 1998 and 2006 (Table 2). The growth rate in the Geneseo Area exceeded Livingston County's overall employment growth rate of 10.2 percent and the Rochester Metropolitan Statistical area's employment growth rate, which actually declined by 4.3 percent. County Business Patterns collects establishment employment data which documents employment at businesses within the area. This differs from residence based employment data which is collected to determine unemployment rates in an area.

The 14454 zip code area that encompasses the Village and Town of Geneseo experienced the greatest increase in employment levels between 1998 and 2006 in the Geneseo area. Based on the U.S. Bureau of the Census County Business Patterns statistics, 887 jobs were added to the 14454 zip code between 1998 and 2006, accounting for more than 75 percent of the net overall employment growth within the Geneseo area for the period.

Table 2. Employment, Geneseo Area, 1998 and 2006

Zip Code & Post Office Name	Year		Change	
	1998	2006	Number	Percent
14485 Lima	982	796	-186	-18.9%
14533 Piffard/York	352	265	-87	-24.7%
14480 Lakeville	483	421	-62	-12.8%
14435 Conesus	75	56	-19	-25.3%
14462 Groveland	22	21	-1	-4.5%
14466 Hemlock	123	136	13	10.6%
14481 Leicester	215	246	31	14.4%
14510 Mt. Morris	787	893	106	13.5%
14414 Avon	1917	2420	503	26.2%
14454 Geneseo	1997	2884	887	44.4%
Total Net Employment Growth	6953	8138	1185	17.0%

Sources: U.S. Bureau of the Census, County Business Patterns

It should also be noted that the Geneseo zip code region continues to be the employment center in the Geneseo area. While the Geneseo zip code region had only 80 more jobs than the Avon zip code area in 1998, the difference in employment between the communities increased to 464 jobs in 2006.

Avon, however, also experienced employment growth, gaining 503 jobs between 1998 and 2006. Avon's employment growth is relevant because traffic on Route 39, a route within the study area, may be impacted by Geneseo commuters and residents of towns south of Geneseo working in Avon.

Overall, the commuting patterns in Livingston County have changed dramatically over the last twenty years (Figure 5). The number of Livingston County residents working increased from 23,405 in 1980 to 29,772 in 2000. During that period, the number of Livingston County residents working in Livingston County has remained stable. In 1980, 15,631 Livingston County residents also worked in Livingston County and in 2000, 15,522 worked in Livingston County.

However, the number of Livingston County residents working outside Livingston County has almost doubled from 7,774 workers in 1980 to 14,250 employees in 2000. There is a direct correlation between Livingston County's population growth and growth in the number of commuters. Since 1980, the County's population has increased by 7,262 persons and the number of commuters in the County has grown by 6,476 workers. In other words, most of the new residents moving to Livingston County have jobs elsewhere and choose to commute rather than find jobs in Livingston County. Figure 5 illustrates that Livingston County is becoming a "commuter" County where the majority of residents work outside the County.

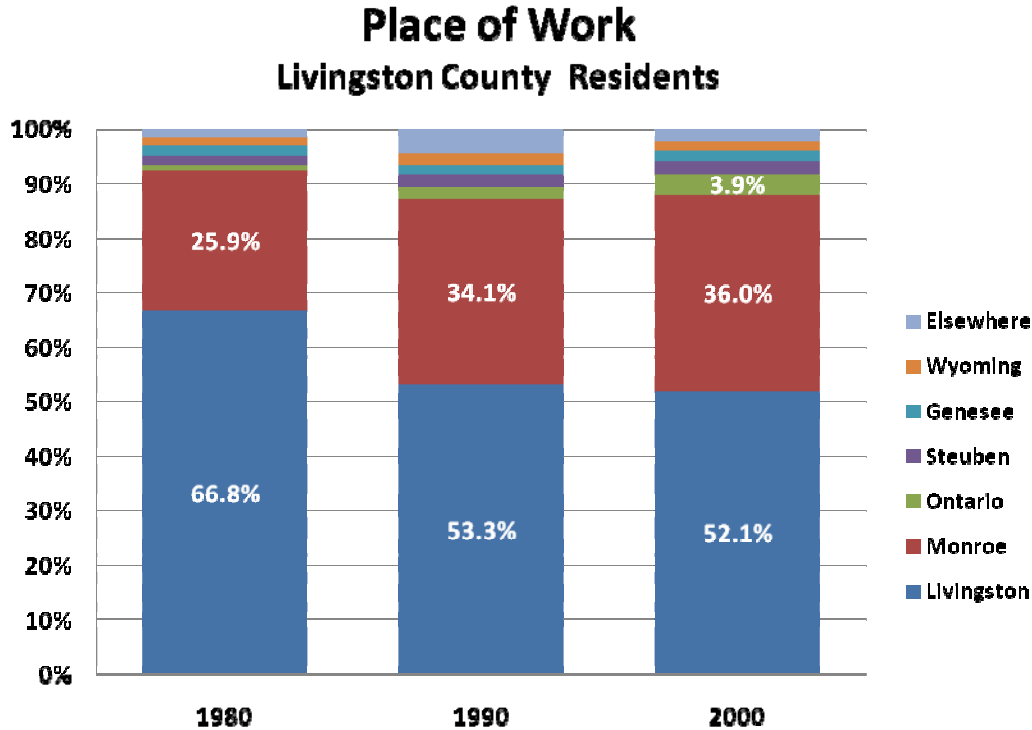


Figure 5. Place of Work, Livingston County residents (Source: U.S. Bureau of the Census)

Transportation Trends and Data

One of the primary purposes of this study is to develop solutions to improve vehicular and pedestrian traffic circulation and safety within the corridor. Therefore, data on traffic volumes, accidents, pedestrian counts, turning movements and intersection levels of service were reviewed.

Another goal is to review and assess parking conditions in the corridor. A parking demand and supply analysis was specifically performed for the Main Street section of the corridor.

Functional Classifications of Study Area Roadways

Roadways are classified by their function based on the service they provide within the road network and their character. The hierarchy of classification ranges from Interstate highways to principal arterial, minor arterial, collector and local roads. The hierarchy is based on mobility, access and traffic volume. Interstate highways, for instance, provide great mobility but very limited access to sites. On the other hand, local roads provide excellent access but vehicular mobility is limited.

The functional classification of the study area roadways is displayed in Figure 6. Court and Main Streets are classified as minor arterials while North Street and Lima Road are categorized as collector streets. The classification of the roadways is important because it determines the minimal design criteria that are acceptable.

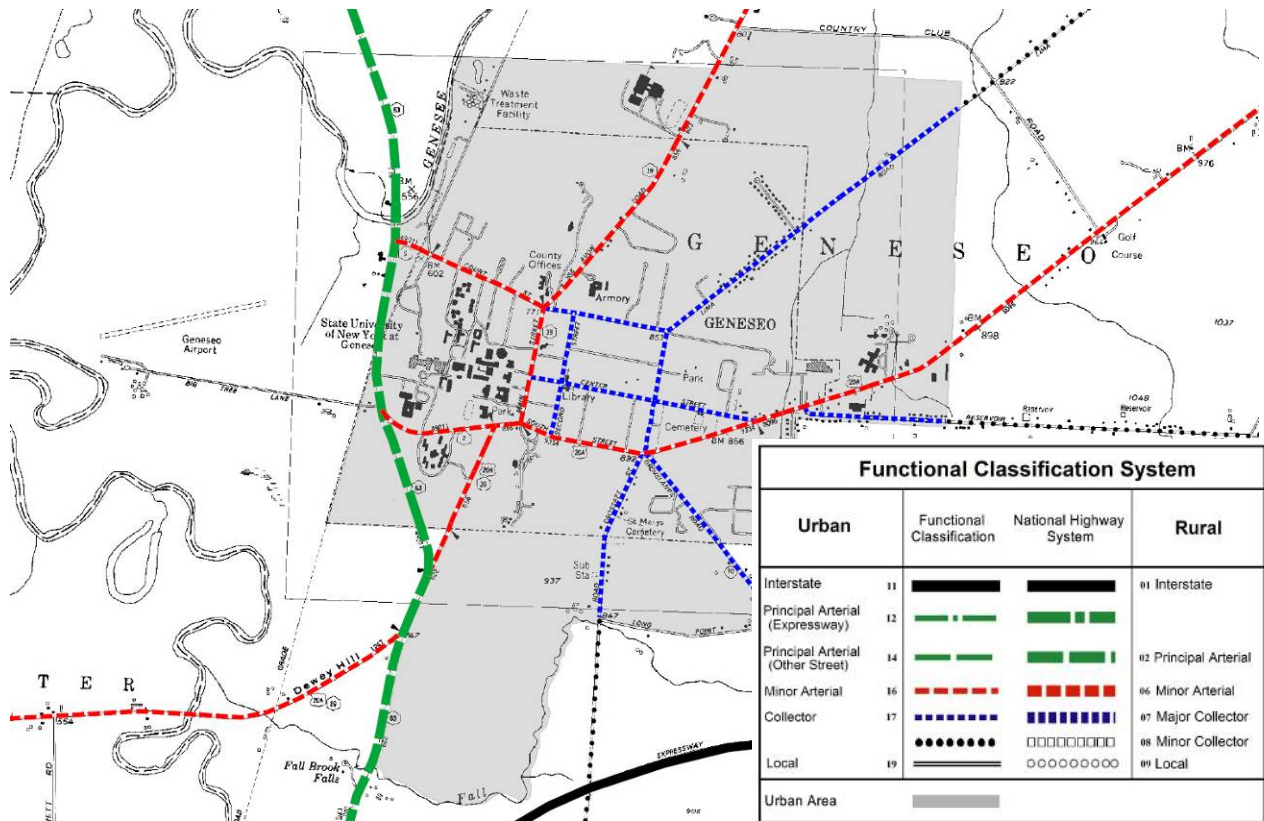


Figure 6. Functional Classifications of Geneseo Roadways under the Urban definition (Source: NYS Dept. of Transportation)

Traffic Volumes

Average Annual Daily Traffic (AADT) data were obtained from the New York State Department of Transportation and Genesee Transportation Council (Table 3) for each “leg” of the corridor including:

- Main Street (Route 39) between Route 20A and North/Court
- Avon Road (Route 39) between North/Court and Triphammer Road
- Court Street between Route 63 and Main Street
- North Street between Main Street and Lima/Highland Roads
- Lima Road between North and the Geneseo Village Line

Table 3. Average Annual Daily Traffic Volumes for Sections of the Corridor

Section	Traffic Counts				Change*	
	AADT	Year	AADT	Year	Number	Percent
Route 39 - 20A to North St	6740	2005	6340	2006	-400	-5.9%
Route 39 - North St to Triphammer	4460	2003	4270	2006	-190	-4.3%
North Street – Main St to Lima Rd	4100	2005	4565	2008	465	11.3%
Court Street - Rt. 63 to Main St	3900	2005	5549	2008	1649	42.3%
Lima Road - North St to Geneseo village Line	4000	2004	4145	2008	145	3.6%

Source: New York State Department of Transportation, Genesee Transportation Council (numbers adjusted to account for seasonal factors where necessary).

* The change in traffic is for two periods where data was available. The change, therefore, represents recent trends for each segment. Comparison of changes between segments may not be valid.

Directional design hour volumes are shown on Figures 7 and 8 for the existing traffic. In the morning (6:30 a.m. – 9:00 a.m.) the dominant movement is north-south on Main Street and Avon Road. The southbound and northbound volumes are almost evenly split north of Park Street. Traffic during the morning peak is probably comprised of student and staff traffic bound for SUNY Geneseo and the latter portion of commuter traffic to Rochester and its suburbs.

In the afternoon (3:30 p.m. – 6:00 p.m.) the trends are less definitive. Volumes overall are higher across the street network. There is a significant movement southbound, (almost double the northbound volume), on Avon Road and Main Street. There is also a strong flow of traffic eastbound on Court Street, North Street and Lima Road. Several factors contribute to the southbound movement, the public school, the county offices, and commuters returning to the Village from the north. The eastbound movement may be attributed to departing SUNY Geneseo staff and students, county office staff, and retail generated traffic.

In addition, average hourly traffic volume data were also collected or estimated for the roads that comprise the Court/North/Main intersection. The data, (Figure 9), helps to establish warrants for the installation of traffic control devices at the intersection.

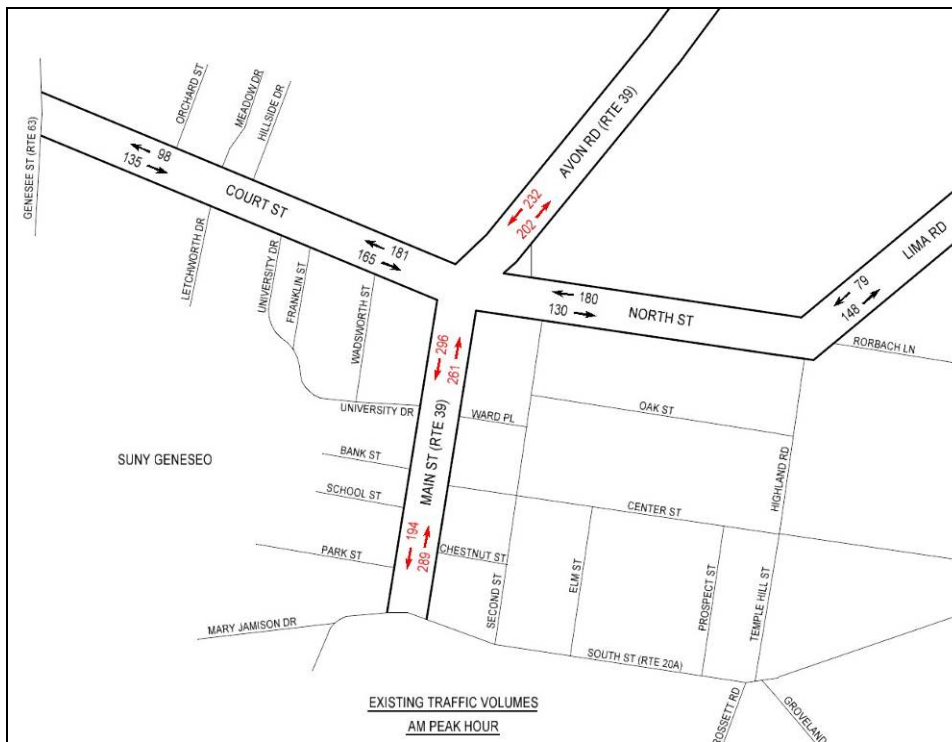


Figure 7. Morning Directional Design Hour Volumes – red indicates the predominant traffic flow (Source: LaBella Associates)

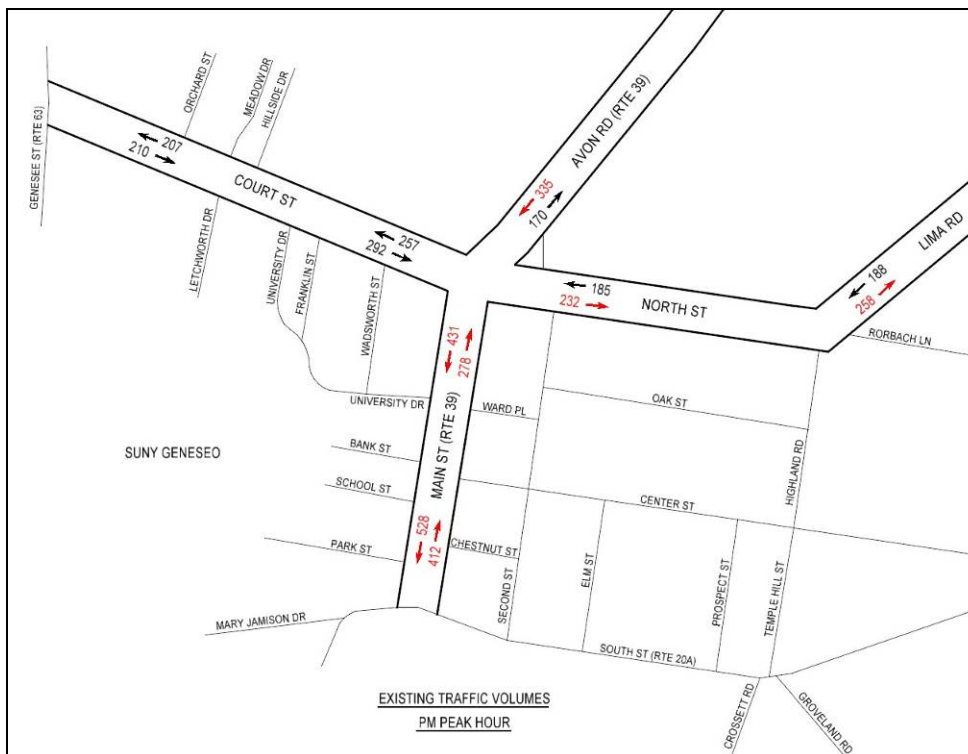


Figure 8. Afternoon Directional Design Hour Volumes - red indicates the predominant traffic flow (Source: LaBella Associates)

Average Weekday Hourly Traffic Volumes Court/Avon/North/Main Intersection

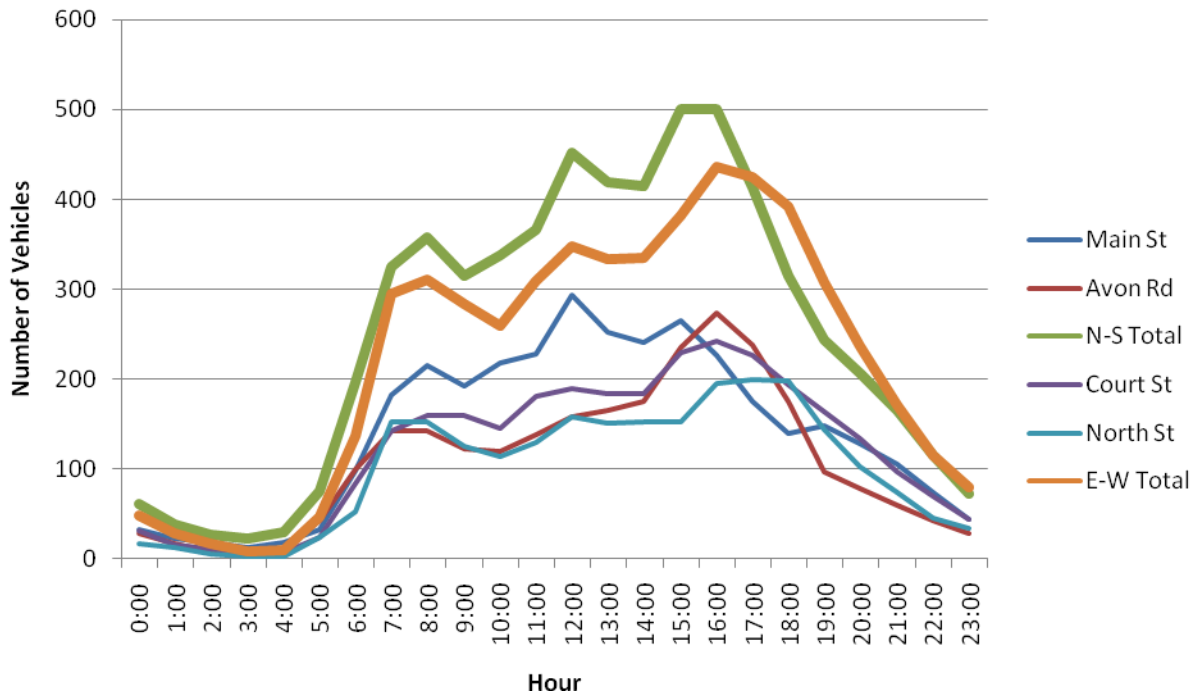


Figure 9. Average Weekday Hourly Traffic Volumes (Source: Genesee Transportation Council)

Accident Rates

Accident reports filed with the Geneseo Police Department were reviewed for the period of January 2006 through November 2008 to assess the highway safety history of the project area. During this period 84 accidents were logged by the police. Of those accidents, 35 are reportable (defined as resulting in greater than \$1,000 in property damage or involved injuries). Eight accidents had reported injuries. There were no fatalities during the study time period. Table 4 lists the type of accidents and the number of each type.

Rear end accidents were the most common but followed closely by parking related accidents, collisions with animals, and right angle accidents. The parking related accidents occurred primarily along Main Street where angled parking is allowed. Drivers backing out and hitting or being hit by cars on the street were most common. Drivers turning to park on the opposite side of the street from the one they were traveling on also accounted for a high percentage of the parking accidents.

Rear end accidents often occur due to drivers who are not attentive to interruptions in the flow of traffic. These interruptions can occur at intersections with signal changes or sudden stops. They also occur midblock due to cars making turns, pedestrian crossings, etc.

Table 4. Accident Types within the Study Area

Accident Type	Number	Percent
Rear End	17	20.2%
Parking	13	15.5%
Animal	12	14.3%
Right Angle	11	13.1%
Fixed Object	8	9.5%
Parked Vehicle	7	8.3%
Left Turn Opposed	5	5.9%
Left Turn	3	3.6%
Overtaking	2	2.4%
Backing	2	2.4%
Sideswipe	1	1.2%
Right Turn	1	1.2%
Pedestrian	1	1.2%
Bicycle	1	1.2%

Source: Village of Geneseo Police Department

The accidents involving animals occurred most often on Avon and Lima Roads. Deer crossing where hedgerows or woods border the roads were most common.

All but two right angle accidents occurred at the intersection of Main Street with Court Street. Since this is a 2-way stop controlled intersection, the majority of the accidents were reportedly due to drivers not seeing conflicting traffic on Main Street and Avon Road.

Accidents were reviewed by location to determine if geometry or other physical attributes negatively affect traffic safety. The Main Street intersection with Court and North Streets was identified as a location where sight distance is limited and may be contributing to accidents. Sight distance for drivers westbound on North Street looking south along Main Street is the most limited. However, there were no accidents between northbound and westbound vehicles reported in the time period reviewed. There were five right-angle accidents between northbound and eastbound vehicles. Sight distance in that direction is not continuous. It is interrupted by several large diameter trees, the terrain, and occasionally by parked cars.

Accident rates were calculated for intersections as well as street segments and compared to statewide average rates for state highways of similar characteristics. Table 5 summarizes the link rates for the five streets within the project limits. Only “reportable” accidents are used in the calculation of these rates in order to have a fair comparison to the statewide rates. All of the street segments are below the statewide rate for urban, undivided, 2-lane roads. The link segments of Main, Avon, Court, and North did not include the accidents within the intersection of those streets.

Table 5. Accident Rates along Linear Sections

Street	Limits	Length	AADT	Acc. Rate	NYS Avg. Rate
Avon Rd	North St to village line	0.83	4295	0.79	2.50
Court St	Main St to village line	0.51	5549	2.31	2.50
Lima Rd	North St to village line	0.67	4145	0.34	2.50
Main St	Rt. 20A to North St	0.45	6360	2.24	2.50
North St	Main St to Lima Rd	0.47	4565	0.31	2.50

Sources: LaBella Associates, NYSDOT, Geneseo Police Department

Intersection accident rates were calculated for the intersections listed in Table 6. Other intersections along Court Street had single reportable accidents. The higher rate of accidents on Court Street may be attributed in part to the steep grade of the roadway. The Main/Court/Avon/North intersection is well above the statewide rate. This intersection is also well above the statewide rates for Rear End and Right Angle accidents.

There were two reportable accidents at the Court St/University Dr. intersection. One was a collision between a vehicle turning into a driveway opposite University and the other did not have any description of the accident in the report. It is therefore difficult to conclude that there is any characteristic contributing to a higher than average accident rate at that intersection, especially with only two accidents occurring there.

The intersection of Center Street with Main Street is a three leg intersection with a circular fountain in the middle. The fountain has the effect of slowing traffic on Main Street as vehicle paths deflect around it. Also, the fountain may confuse drivers unfamiliar with the operation of the intersection. This can be further compounded by the higher volume of pedestrian traffic that crosses at this location. Despite these latter two characteristics, the accident rate for this intersection is equal to the statewide average.

Table 6. Accident Rates at Intersections

Intersection	Design Hour Volume	Accident Rate	NYS Avg. Rate
Main St/ Court St/ North St/ Avon Rd	1060	0.72	0.17
Main St/ Center St	892	0.09	0.09
Court St/ University	586	0.29	0.09

Sources: LaBella Associates, NYSDOT, Geneseo Police Department

Sight Distances

A major factor that has an impact on accidents at the Main St./North St./Court St. intersection is sight distance. The most significant sight distance issue is at the southeast corner of Main and North Streets. Drivers crossing or entering Main Street have a very limited view of drivers heading northbound as illustrated in Figure 10. Drivers on North Street have only 117 feet of visibility for drivers approaching from the south on Main Street. Looking north from North Street the sight distance is partially blocked by a deciduous shrub at the corner of the park. Sight distance from Court Street is interrupted by trees and cars parked both to the north and south. Many vehicles, perhaps with drivers familiar with the intersection, were observed to stop, then inch into the intersection to improve sight distance.



Figure 10. Sight Distances looking left from North and Court Streets (Source: LaBella Associates)

Capacity and Delay Analysis

Turning movement counts were collected at several intersections within the project limits. Only the afternoon peak was counted at Route 20A/Main Street because this intersection had been studied during the Access Management Study for Route 20A. The other intersections were counted in the morning from 7:00 to 9:00 and in the afternoon from 4:00 to 6:00. The Main and Court Street intersection and Main and Park Street were also counted between 11:00 and 1:00 to determine if the midday peak was significant to the road network.

Highway capacity software (SYNCHRO) was used to model the operation of the traffic signal at Main Street and Route 20A. The other intersections were modeled in another highway capacity software (HCS+) using the unsignalized intersection module. Levels of service were calculated for existing conditions. The results are summarized in Table 7. Level of service is a measure of average vehicle delay in the United States defined in the Highway Capacity Manual published by the Transportation Research Board. Different levels of service for intersections are defined below by vehicle delay times.

The Highway Capacity Manual defines level-of-service for signalized and unsignalized intersections as a function of the average vehicle control delay:

LOS	Delay Times	
	Signalized Intersection	Unsignalized Intersection
A	≤10 sec	≤10 sec
B	10-20 sec	10-15 sec
C	20-35 sec	15-25 sec
D	35-55 sec	25-35 sec
E	55-80 sec	35-50 sec
F	≥80 sec	≥50 sec

Source: Highway Capacity Manual, Transportation Research Board

Table 7. Study Area Intersection Levels of Service

INTERSECTION	EXISTING AM LOS	EXISTING PM LOS
NYS Route 20A/Main Street (Signal)		
Eastbound - NYS Route 20A		B/14.1
Westbound - NYS Route 20A		D/36.5
Southbound - Main Street		D/35.9
Overall LOS/Delay in sec/veh		C/30.1
Main Street/Park Street (2-way Stop)		
Eastbound - Park Street	C/18.5	F/65.0
Northbound - Main Street	A	B
Southbound - Main Street	*	*
Main Street/Center Street (2-way Stop)		
Westbound - Center Street	B/13.1	C/18.6
Northbound - Main Street	A	A
Southbound - Main Street	A	A
Main Street/Court Street (2-way Stop)		
Eastbound - Court Street	E/44.6	F/**
Westbound - North Street	E/39.4	F/**
Northbound - Main Street	A	A
Southbound - Avon Road	A	A
Court Street/Meadow Drive (2-way Stop)		
Eastbound - Court Street	A	A
Westbound - Court Street	A	A
Northbound - Letchworth Rd	B/10.9	B/11.2
Southbound - Meadow Drive	B/11.2	B/13.0
Court Street/University Drive (2-way Stop)		
Eastbound - Court Street	*	*
Westbound - Court Street	A	A
Northbound - University Drive	B/10.7	B/12.9
North Street/Lima Road/Rorbach/Highland (All-way Stop)		
Eastbound - North Street	A/8.9	B/11.9
Westbound - Rorbach Lane	A/7.8	A/8.5
Northbound - Highland Road	A/8.6	A/9.5
Southbound - Lima Road	A/7.8	A/9.6
Overall LOS/Delay in sec/veh	A/8.4	B/10.6

* Indicates movement at essentially free flow condition (LOS and delay are not calculated)

** Volume exceeds approach capacity, drivers likely accept shorter gaps to proceed through intersection

Bold text indicates intersections with LOS below accepted levels.

Source: LaBella Associates

The Main Street intersection with Court Street operates below an acceptable level of service during both the morning and afternoon peak hours. The Main Street intersection with Park Street operates below an acceptable level of service during the afternoon peak hour. These two intersections function acceptably during the midday peak. The other intersections currently

operate at acceptable levels. Delays are typically higher during the afternoon peak than in the morning.

Pavement and Sidewalk Conditions

Existing pavement conditions were reviewed in the field. Pavement condition surface scores from the NYSDOT were researched for Route 39. Roads with a score of 9-10 are considered in excellent condition and no treatment is needed. Scores of 7-8 are considered in good condition needing a crack seal overlay. Rehabilitation is needed for roads with a score of 6, and roads rated below 6 are rated poor and in need of major repair or replacement.

Main Street and Avon Roads have been scored with a pavement condition of 6, which is fair. Court Street is in similar condition but the frequency of surface defects is greater which would score a 5-Poor. North Street has been overlaid numerous times and the pavement edges are decaying. The cross slope varies and is excessive for much of the street although the ride quality is fair. This street would score a 4 or 5. Lima Road condition varies with moderate to severe thermal cracking, utility cuts, and delaminating overlay asphalt. The ride quality is poor. Resurfacing is needed to extend the service life of the pavement. Lima Road pavement is scored 4- poor but was recently repaved in October 2009 utilizing stimulus funding.

Sidewalk conditions were also reviewed in the field. With the exception of a few panels that were cracked, the condition of sidewalks in the study area was good to fair. The good condition of sidewalks can be attributed to the Village's sidewalk replacement program. The only repairs or upgrades that need to be made to the sidewalks are the installation of embedded detectable warning systems on the curb ramps.

Route 20A Comprehensive Access Management Plan

The Village and Town recently collaborated on an Access Management Plan for Route 20A between Mt. Morris Road and North Road. The goal of the plan was "to develop a plan that the local jurisdictions and NYSDOT can implement to make NYS Route 20A a safer and more efficient transportation facility for all users over the next 20 years." The study focused on 20A which, with the exception of the 20A and Main Street intersection, is not within this study's scope. However, there were several recommendations from the plan that could impact the study corridor.

An overriding theme of the plan is to alleviate congestion on Route 20A by providing alternate routes or bypasses to properties along Route 20A. Alternate access to commercial developments north of Route 20A is essentially provided by creating a new street network between Route 20A and Lima Road. Several existing and proposed roads north of Route 20A would be extended to Lima Road and Volunteer Road would be widened to allow for a right hand turning lane for its full length. These new roads may increase conflicts along Lima Road.

Pedestrian Counts

The Village of Geneseo's pedestrian circulation system is very important. More than one third of workers in the Village walk to work. In comparison, only 3.5% of workers in the Rochester Metropolitan Statistical Area walk to work. High levels of pedestrian activity in Geneseo are attributed to several factors including the number students without cars and the compact pedestrian design of the Village center.

In November 2008, when school was in session for both SUNY Geneseo and the Geneseo Public Schools, staff from LaBella Associates counted pedestrian crossings while observing intersection turning movements. The primary intersections on Main, Court and North Streets were counted. Figure 11 summarizes the crossing frequencies at the intersections. Main Street intersections had the highest level of crossings within the corridor, comparable to downtown areas in much larger cities. At the PM peak hour (3:30 p.m. – 6:00 p.m.) more than 160 people crossed at the Main and Center intersection. Altogether, 290 people crossed at the Main Street intersections during the PM peak hour.

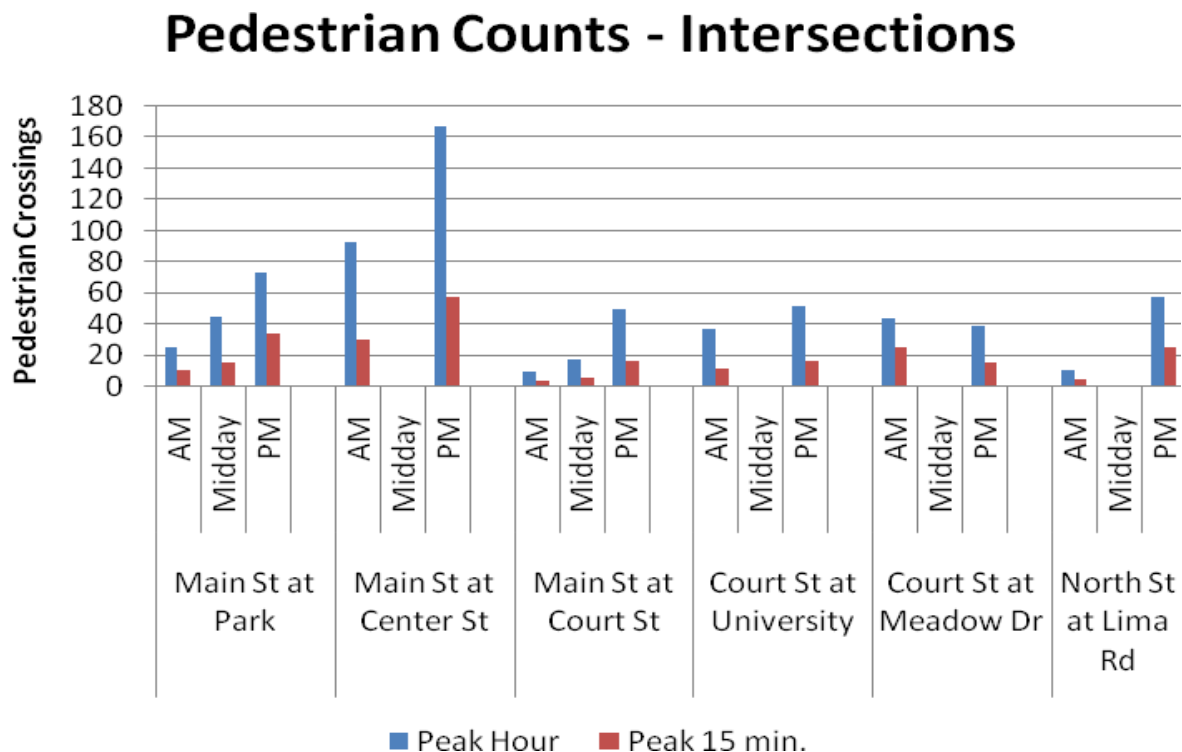


Figure 11. Pedestrian Crossing Counts, Village of Geneseo intersections (Source: LaBella Associates)

Pedestrian Committee Report

During the fall of 2004 the Village of Geneseo's Walking and Biking Committee met to discuss opportunities to improve the non-motorized transportation system in the Village. The group's efforts were focused on enhancing the safety and connectivity of the existing Village pedestrian and bicycle network. A preliminary report was released in July 2005 - a summary of the recommendations related to the corridor include:

- Installation of sidewalks on the south/east side of Lima Road to Kimberly Drive from Rorbach (completed).
- Extend the sidewalk on the west side of Avon Road northerly, and connect it with a crosswalk to the sidewalk on the east side of Avon Road.
- Restoration of landscaped parkways or boulevards.
- Install a crosswalk on Lima Road at Melody Lane (completed).
- Lower residential speed limits.
- Interconnect trails with the existing and proposed sidewalk network and into adjacent neighborhoods.

Several committee recommendations such as new crosswalks or sidewalks have been implemented. One additional pedestrian concern noted by the steering committee, but outside the study area, was the lack of sidewalks on Franklin Street.

Village Trail Network

The Genesee Valley Conservancy is a non-profit group based in Geneseo established to protect the habitat, open space and farmland in the Genesee Valley Region. The Conservancy currently owns and maintains the Island Preserve, a large piece of undeveloped land nestled among residential neighborhoods between Lima Road and Avon Road in the Village of Geneseo. Future plans of the Conservancy, as shown in Figure 12, include a network of trails within the Village connecting residential areas with commercial districts, recreational areas and schools. Several of the proposed trails pass through the corridor. The Conservancy's Stewardship Director has suggested that new sidewalks or crosswalks to existing sidewalks would be beneficial at many of the proposed trail heads along the corridor.

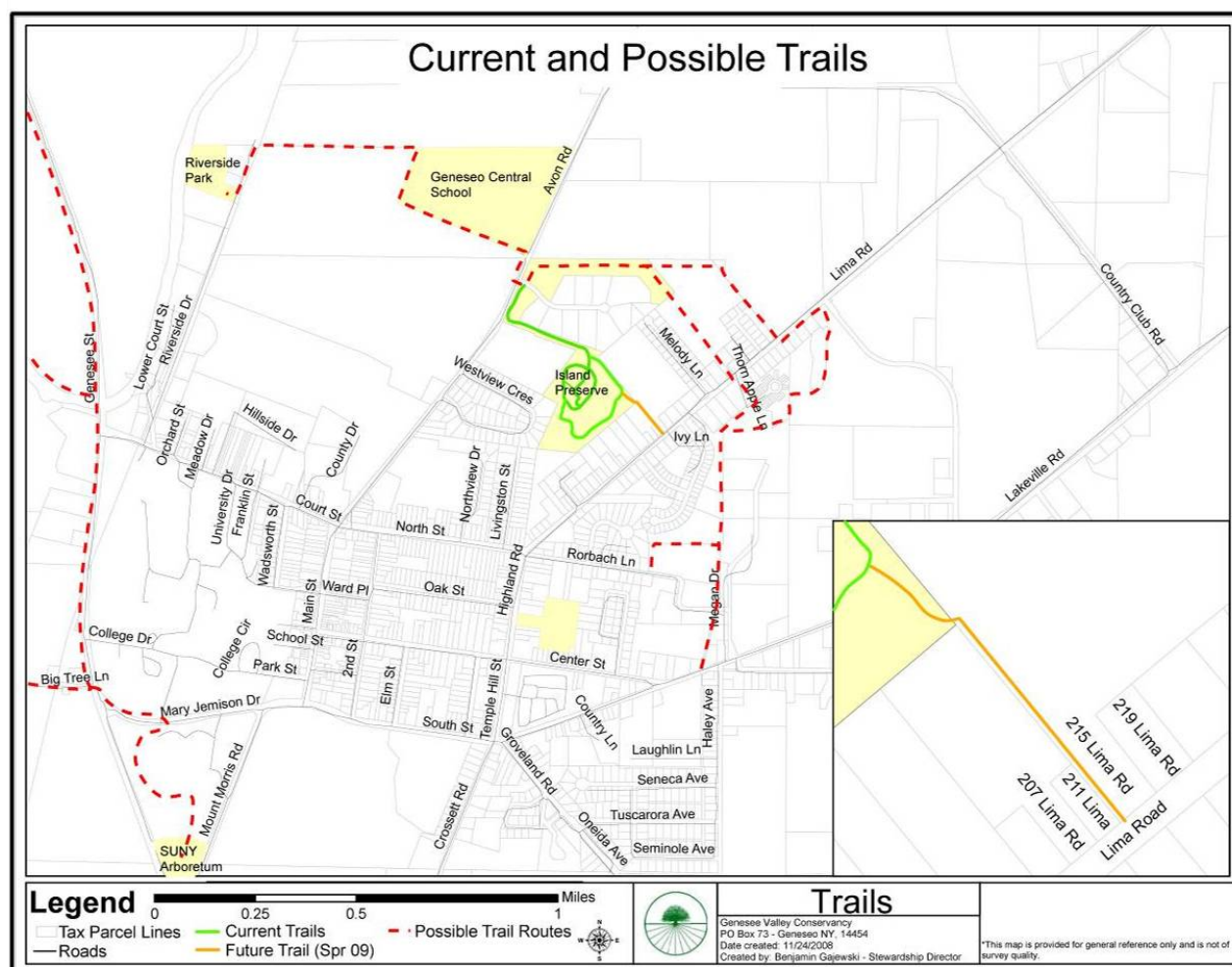


Figure 12. Genesee Valley Conservancy Existing and Proposed Trails (Source: Genesee Valley Conservancy)

Bus Ridership & Facilities

The Livingston Area Transportation Service (LATS), a subsidiary of the Rochester – Genesee Regional Transportation Authority, provides daily service in Geneseo and weekend bus service from Geneseo to Rochester. The LATS bus service is a valuable service to both students and residents in the Village.

LATS has been proactive in promoting more bus ridership in the Village which started in 2002. A statement in a recent report by LATS and the SUNY Geneseo Student and Campus Life office summarized the impact of the bus service on meeting the vision of SUNY Geneseo and the Village of Geneseo to maintain and enhance a pedestrian centered community:

"The percentage of resident students at the College who brought a car to campus decreased from 75% in 2002 to 33.3% in 2008-2009 . . . , reducing the need for the College to construct more parking spaces on campus and for the Village of Geneseo to construct more parking spaces adjacent to campus; alleviating traffic congestion on campus and in the local community."

The promotional efforts of LATS and SUNY Geneseo Student and Campus Life Office have been effective. Since 2003, bus ridership has grown dramatically from 40,410 riders to 161,510 in 2009 as summarized in Table 8. During that period, the number of student residential parking permits has decreased from 2,292 to 1,006.

Table 8. Livingston Area Transit Service (LATS) Bus Service Ridership in Geneseo

Year	Local Daily	Weekends to Rochester	Total
2003-2004	36,590	3,820	40,410
2004-2005	61,829	4,378	66,207
2005-2006	82,320	5,613	87,933
2006-2007	104,899	7,155	112,054
2007-2008	133,337	6,726	140,063
2008-2009	152,732	8,778	161,510

Source: Livingston Area Transit Service (LATS)

Placement and design of new bus shelter facilities within the corridor would need to be consistent with the historic or residential character of the corridor. LATS has recently installed a bus shelter on Court Street within the corridor.

It should also be noted that the Geneseo Central School District operates school buses in the corridor. North, Court, Lima and Main Street are all on the school system's bus routes.

Bicycle

There were no counts taken of bicycles in the corridor, nor did traffic counters notice any bicycle circulation patterns in the study area. However, an assessment of bike facilities was completed.

Currently, there is one bike rack on Main Street with four spaces next to Key Bank. In order to promote biking for recreation and transportation to work and school, additional bike racks would be necessary.

The Bicycle Coalition of Massachusetts provides data on bicycle parking requirements for various communities throughout the United States. Most communities cited by the Coalition provide a minimum number of bicycle spaces equal to between 5 and 10 percent of the amount of parking supplied at new commercial developments.

Geneseo is a historic center that is already developed. However, using the same ratios, Geneseo's Main Street area would need between 27 and 54 bicycle rack "parking" spaces to satisfy bicycle parking requirements in other communities.

There was one bicycle safety issue in the corridor noted by the steering committee. The widths of sewer grate openings on Court Street were wider than standard bike tire.

Parking

Stuart I. Brown Associates staff conducted a parking supply and demand survey of the Village parking areas on Tuesday, December 7, 2008 when SUNY Geneseo classes were in session. Approximately 535 parking spaces (353 public, 182 private) were located in the following areas: the Village Parking lot on the east side of Main Street behind the Geneseo building and downtown buildings; angled and parallel parking spaces (metered and free) on Main Street between Route 20A and Court Street; Center Street between Main Street and Second; University Avenue between Main Street and Wadsworth Street; and private parking lots behind the downtown buildings on both sides of Main Street. Counts were analyzed by the following categories and subcategories:

- Public
 - o Metered
 - o Free
 - o In lots
 - o On-street
- Private Lots (SUNY Geneseo lots were not included)

The lots were surveyed hourly between 10:30 a.m. and 1:30 p.m. which is typically a period of high demand for parking spaces.

The results of the survey indicate that overall, about 30 percent of the parking spaces were available during the hours surveyed. The only specific areas that had low vacancy levels were the unmetered spaces on University Avenue and Main Street, as well as private parking areas adjacent to buildings with office space. A summary of public and private parking occupancy between 10:30 a.m. and 1:30 p.m. is provided in Table 9 below.

Table 9. Public and Private Parking Vacancy

Area	Section	Total Parking Spaces	Vacant Spaces					
			10:30 AM to 11:30 AM	Percent Vacant	11:30 AM to 12:30 PM	Percent Vacant	12:30 PM to 1:30 PM	Percent Vacant
East Side	Public	251	100	39%	81	32%	88	35%
	Private	41	----	----	----	----	6	15%
East Side Total		292	----	----	----	----	94	32%
West Side	Public	102	34	33%	32	31%	16	16%
	Private	141	----	----	----	----	53	38%
West Side Total		243	----	----	----	----	69	28%
Total Downtown		535	----	----	----	----	163	30%

Source: Stuart I. Brown Associates Survey

Note: Private parking areas were not surveyed between 10:30 a.m. and 12:30 p.m.

A parking demand analysis was also conducted for the downtown area. The demand for spaces was calculated by obtaining the total square feet of buildings on Main and Center Streets and multiplying the space by a parking rate factor based on the parking requirements in the newly adopted zoning regulations. For example, most of the first floor space was multiplied by a factor of 1.5 spaces for every 1,000 square feet of space. Upper floors that were residential were multiplied by a factor of one parking space for every unit.

Based on these calculations, there is a demand for 320 spaces within the Main Street commercial area. Therefore, a parking supply excess of 215 spaces exists in the Main Street district based on the demand analysis. The calculated excess parking supply is slightly more than the observed vacancy in Table 9. However, the surveyed vacancy rate may be lower than the calculated vacancy because the demand analysis does not take into consideration parking resulting from SUNY Geneseo College commuters and visitors that use downtown spaces because of convenience.

Additional detailed data on the parking survey is included in Appendix C.

Land Use, Zoning and Planning Policies

Land use, zoning and planning policies provide a framework to analyze the relationship between existing conditions and future development. The recommendations and regulations within the planning documents guide future decisions on development in the the Village and Town of Geneseo.

For this study, several planning and land use documents were reviewed to ascertain the community's policies regarding the transportation network and development or redevelopment of lands adjacent to the study area. Documents reviewed included the Village Comprehensive Plan, the recently enacted Village Zoning Code, the Village Subdivision Ordinance, Village parking regulations, the Village Site Plan Review Local Law, the Village Preservation Local Law, the Town Zoning regulations, the Route 20A Access Management Plan and the Town Comprehensive Plan.

Comprehensive Plans

The Village and Town Comprehensive Plans have recently been completed and many of the recommendations in both plans are either identical or similar. In both plans there is an overall theme of protecting and enhancing the unique, rural small town quality of life enjoyed by Geneseo residents, students, businesses and visitors. There is also recognition that unrestrained residential and commercial sprawl in the communities is not sustainable or desirable.

The plans have several recommendations relative to circulation, parking, safety and aesthetic issues within the corridor including:

- *Preservation of the Small Town Character and Quality of Life* – the plans recommend the preservation of the historic Main Street character and enhancement of the pedestrian and bicycle networks within and between the municipalities.
- *Ensure a balance between development and infrastructure* – use or maximize existing infrastructure before building new infrastructure.

- *Improve traffic safety, access and circulation of roadways* – reduce congestion, promote safe pedestrian routes and manage access, speed and appropriate use of roadways.
- *Create a pedestrian and bicycle network* – acknowledge, promote and enhance/build a non-motorized transportation network throughout the Geneseo area.

Study Area Land Use and Zoning

The land use and zoning within the corridor are effectively the same because both the Village and Town have recently updated their zoning regulations. There are two main uses and zoning categories within the corridor. Mixed use development is permitted within the Main Street commercial district and the remainder of the study corridor consists of residential development. Land use and zoning within the study area is displayed in Figures 13 and 14.

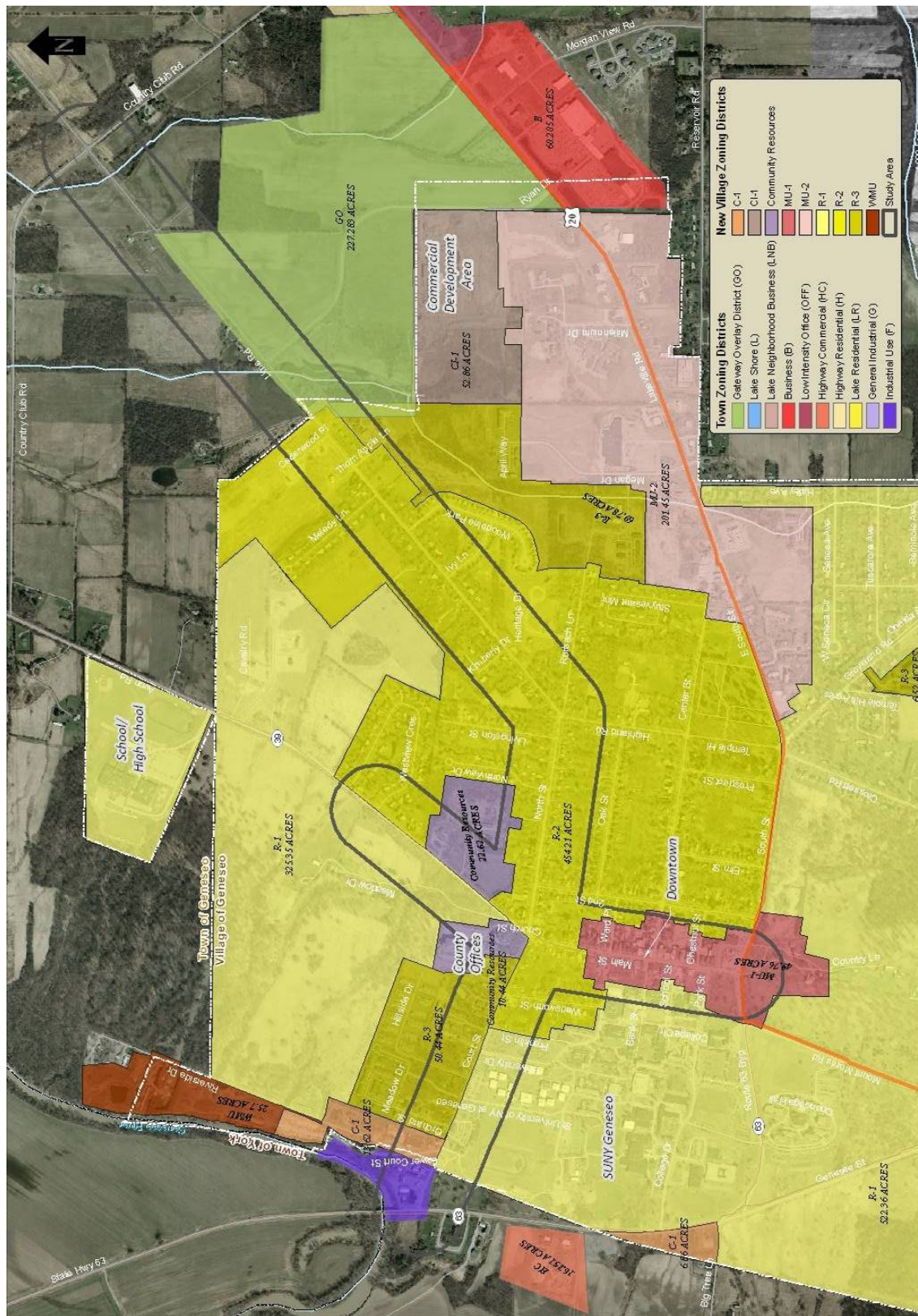


Figure 13. Corridor Zoning (Sources: Village of Geneseo, Bergmann Associates)

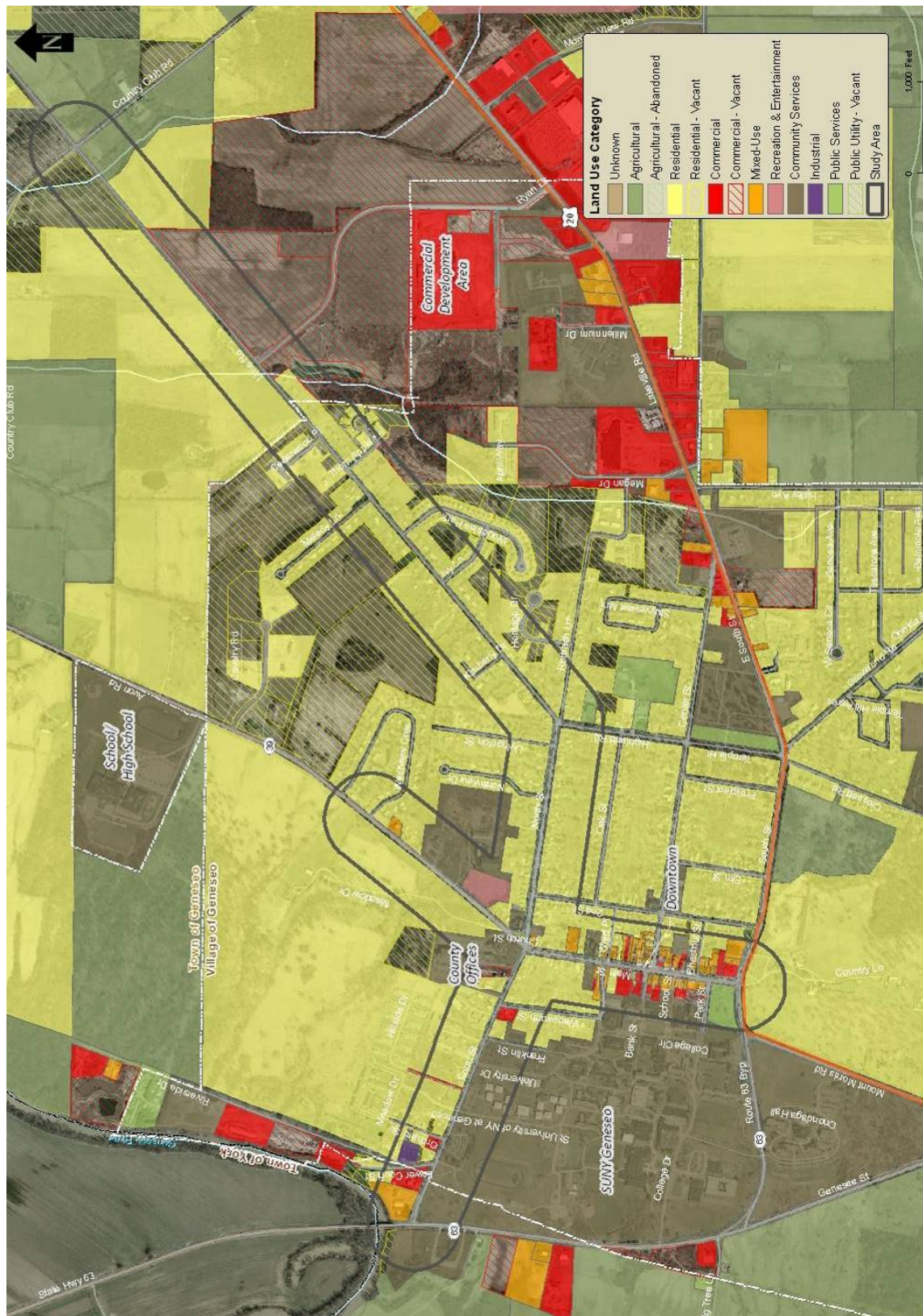


Figure 14. Corridor Land Use (Sources: Village of Geneseo, Bergmann Associates)

Urban Design Issues

Urban design refers to the arrangement and functionality of urban public space. Streets and roadways are the most visible and common public spaces. Geneseo is fortunate to already have exceptional urban design characteristics within the corridor and specifically along the historically designated Main Street (Route 39). Therefore, the goal of this study regarding urban design is to preserve and enhance the roadway aesthetics and functionality along the corridor.

This section will identify existing urban design characteristics along the corridor. Figure 15 highlights specific urban design characteristics along Main Street.

Courthouse Visual Termination

North/Court/Main

Crosswalk Program

Fountain/Center/Main

Angled Parking

Gateways

Wadsworth Property



Figure 15. Existing Urban Design Characteristics Along Main Street (Source: Stuart I. Brown Associates)

Specific urban design issues on Main Street are as follows:

- *Courthouse Visual Termination* – The view of the Livingston County Courthouse for northbound travelers along Main Street is a fundamental, historic and purposeful design

- element to provide an attractive visual termination that emphasizes the importance of the County government.
- *North/Court/Main Intersection* – the intersection acts as a principal gateway into the downtown district from the North.
 - *Crosswalks* – the Main Street crosswalks are an important amenity for pedestrians and also provide traffic calming benefits. Some of the crosswalks were installed or upgraded following completion of the Village Pedestrian report.
 - *Center/Main/Bank Intersection* – the intersection is punctuated by an iconic fountain at its center which acts as a traffic calming feature and an unofficial traffic circle that defines downtown’s character.
 - *Angled Parking* – the angled parking also acts as a traffic calming feature by forcing drivers to slow down to look out for vehicles exiting parking spaces. The angled parking also provides a significant separation between the pedestrian realm of the sidewalk and the vehicle dominated roadway.
 - *Gateways* – there are several important gateways within the corridor including ones downtown at the intersection of Route 20A and Main Street and the aforementioned North/Court/Main intersection. There are also additional important corridor gateways at Route 63/Court Street and Lima/Volunteer Roads.
 - *Wadsworth Property* – a portion of the Wadsworth property, formerly zoned for residential uses, has been rezoned to allow mixed use development. When and if the property is developed, it presents a unique one time opportunity to establish the same kind of attractive visual termination feature for southbound Main Street travelers that the Courthouse provides to northbound travelers. Development of the site might also require modifications to the Route 20A and Main Street intersection.

While preservation and enhancement of Main Street’s urban design characteristics are evident, redesign of North Street has been identified by both steering committee members and the public as an important goal of this study. Therefore, an assessment of conditions along North Street is also necessary.

North Street’s current infrastructure design, especially as it impacts the appearance and functionality of the street, is not appropriate. The roadway crown is very high, there are no curbs, and storm drainage is provided by exposed swales (Figure 16). Visually, the roadway appears undefined and the crown makes the roadway the dominant feature in an otherwise attractive neighborhood. Functionally, there is no clear definition between the vehicular roadway and the pedestrian sidewalk that curbing and a formal parkway would typically provide.



Figure 16. North Street's Current Condition (Source: Stuart I. Brown Associates)

There are other urban design issues related to regulations and the historic character of the street. One design issue that directly impacts both the appearance and functionality of the street is the incidence of front yard parking allowed at newer developments within the Main Street commercial district (Figure 17). Front yard parking interferes with pedestrian traffic when cars want to enter, exit and backup over the sidewalk area. The newly adopted zoning regulations disallow front yard parking, but the Planning Board can allow one row of parking at their discretion.

Another issue, somewhat beyond the scope of the study but relative to the aesthetics of the corridor, is the lack of design guidelines or review of newer buildings within the Main Street commercial district. While Site Plan Review provisions to protect the character of the neighborhood may help prevent inappropriate development, they are not as specific and defensible as design guidelines.

With the potential development of the Wadsworth property on the horizon, the need for design guidelines is even greater. However, the Wadsworth property could fall under planned residential district design regulations.



Figure 17. Front Yard Parking on Main Street (Source: Stuart I. Brown Associates)

Similarly, the unique and irreplaceable historic buildings on Main Street are not effectively protected against demolition or inappropriate rehabilitation. The Village has a Preservation Ordinance that applies to properties specifically designated by the Village as historic landmarks or within historic districts. Currently, there are few if any properties that have been designated and designation is voluntary. The Main Street district is designated a National Register Historic District and would be protected if demolition or rehabilitation of a building in the district was to be implemented using state or federal financial assistance.

The last urban design issue that should be considered is both the style and level of lighting within the Main Street historic district. Given that one purpose of this study is to prepare the Village of Geneseo for future reconstruction projects within the corridor, one item that can be addressed during reconstruction is the replacement of the tall cobra head lighting poles in the downtown area. Shorter, more pedestrian oriented lighting, that still provides adequate roadway lighting, would be more appropriate for the historic district. Likewise, new lighting would provide a better distribution and level of lighting throughout the downtown, making it safer for pedestrians, especially when crossing Main Street.

Public Input

Geneseo residents, businesses, students and property owners were provided two opportunities for public input prior to the development of recommendations and alternatives for roadway improvements. A Community Workshop was held in the winter of 2009 to gain “hands on” community input for corridor improvements. To complement the workshop, an 18 question community survey was available online and in paper format at the Geneseo building for more than 60 days in the winter and late spring 2009. A summary of the results of the workshop and survey are presented below.

Community Workshop

On Saturday, February 28, 2009 a Community Workshop was held at the Central Presbyterian Church on Center Street to solicit public input on alternatives to improve circulation, parking, aesthetics and parking in the study area. Approximately 30 residents and steering committee members attended the meeting.

Workshop participants were given a presentation summarizing existing corridor conditions and examples or case studies of traffic calming, traffic control and streetscape enhancements before working on solutions for improvements in the corridor. Using base maps and markers, participants were then divided into three groups to suggest specific improvements within the corridor regarding improvements for circulation (vehicular, pedestrian, bicycle), parking, roadway aesthetics and safety (vehicular, pedestrian). Several consensus concepts emerged from the three groups:

1. Install bump outs at Main and Center Streets and other downtown intersections with significant pedestrian crossings to increase vehicular and pedestrian visibility, reduce crossing time and slow traffic speeds.
2. Preserve and enhance the fountain at Main and Center/Bank Streets.
3. Install decorative lighting on Main Street.
4. Improve safety and circulation at the North/Court/Main Streets intersection with the installation of a traffic circle/roundabout or other traffic controls.
5. Reduce the speed of southbound traffic entering the study area on Avon and Lima Roads.
6. Incorporate trails into the existing or planned sidewalk network; install trailhead signs.
7. Add sidewalks on
 - a. Lima Road, west side, from Kimberly Drive to Volunteer Road
 - b. Lima road, east side, from Thorn Apple Lane to Volunteer Road
 - c. Avon Road, north of Courthouse to the crosswalk near Westview Crescent
8. Add pedestrian warning signs on Court Street.
9. Increase the lighting level on Court Street.
10. Add a left turn lane from Route 63 to Court Street.
11. Add medians and/or extend parkways on North Street, with curbing, to slow down traffic and formalize the street.
12. Repair and upgrade North Street infrastructure including the drainage and road crown.

It should be noted there was no consensus on whether bike lanes should be installed on North Street. One group thought it would be a good idea but other groups thought parking or additional landscaping were more important amenities to consider or maintain. Additionally, groups did not propose any bus shelters or bike facilities.

Community Survey

A survey was prepared to ascertain public opinion on overall circulation, parking, aesthetics and safety for vehicular, bicyclist and pedestrian traffic in the corridor. The survey was made available online through both the Village/Town municipal website (www.geneseony.org) and the www.geneseony.com website. Copies of the survey were also available at the Geneseo Building.

Promotion of the survey was done through the Livingston County News utilizing press releases and ads. In addition, several steering committee members helped spread the word within the community about the survey. As a result of this promotion, 129 individuals participated in the survey.

Of those who participated 54 were Village or Town residents and 66 worked in the area (including college employees). The remainders of the survey participants were college or high school students. Many of the results reinforce the findings within the existing conditions section of the report. Highlights from the survey are summarized in the sections below.

Survey Results – Circulation

Two survey questions focused on traffic congestion and turning movements. One was a multiple choice question and the other was open ended. Question number 2 asked “what times of the day do you experience traffic congestions or difficulty making turns on the following roadways?” The responses to the question are summarized in Figure 18.

The survey results indicate that the majority of the congestion and turning movement issues within the corridor occur on Main Street, either all day or in the evening hours. Participants also thought that Court Street and North Street have issues at the same times, but not as significant as Main Street. Almost one half of the respondents do not have an issue with congestion on Avon Road and more than one half reported no congestions problems on Lima Road.

Question number 3 was an opened ended follow up question to question 2 and asked participants if they were aware of any specific traffic issues in the area. Certain themes or recurring answers emerged upon review of 102 responses to the question:

- Turning left onto Main Street from Park Street in the evening hours is a major problem.
- Visibility at the University Drive and Main Street intersection is not good from University Drive.
- Visibility on Main Street is not good at the intersections of University Drive and Main Street, and Bank Street and Main Street because of parked cars.
- The speed on Lima Road needs to be controlled better and speed limits should be reduced northeasterly of Volunteer Road.
- The geometry of the Main/North/Court Streets intersection needs to be redesigned for better visibility.

What times of the day do you experience traffic congestion or difficulty making turns?

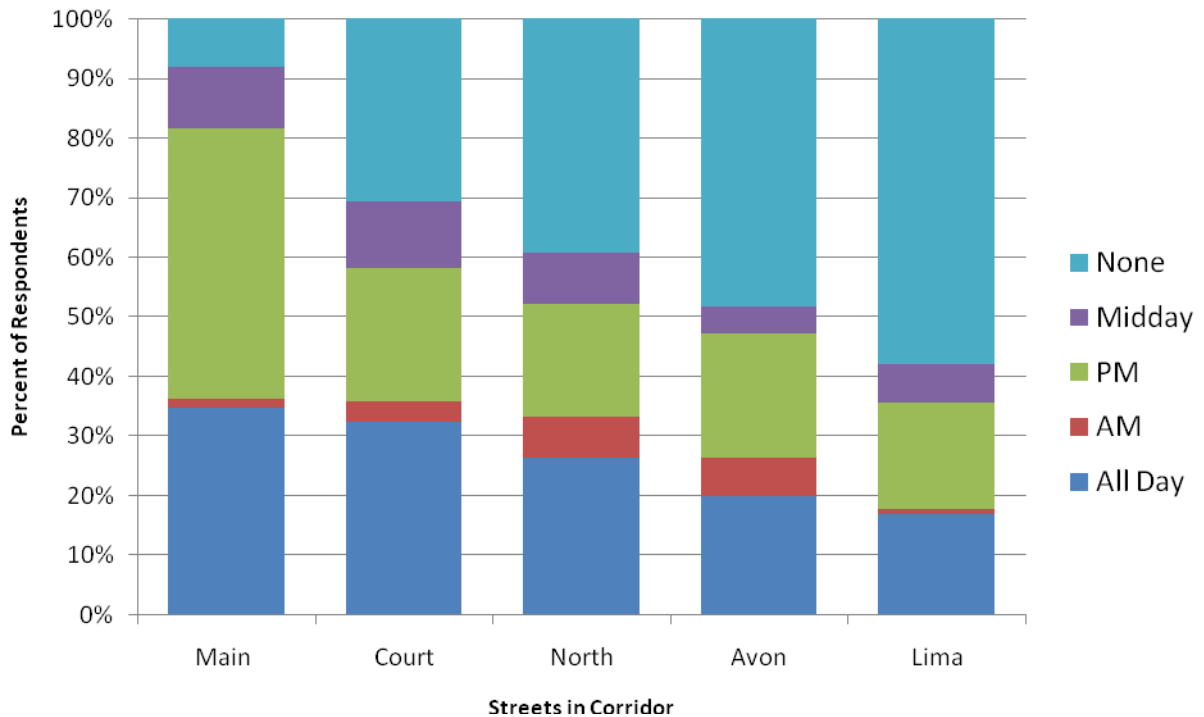


Figure 18. Survey participants' views toward congestion in the Corridor (Source: Stuart I. Brown Associates)

Survey Results – Parking

Another question focused specifically on parking. Question number 4 asked “when visiting the Geneseo Main Street business district, what is your experience regarding parking? Answers to the question are tabulated in Figure 19.

The parking survey question revealed that 60 percent of the respondents believed they could always find a parking space or seldom have had trouble finding a parking space in the Main Street district. Just over one third of the respondents frequently had a issue finding parking.

A follow up question inquired where public parking should be available and the most frequent answers were:

- Develop a visitor/public parking lot behind the stores on the west side of Main Street, especially near the library or between Park and University; one participant suggested a consolidation and reorganization of the private lots on the west side.
- New lots should be behind the buildings to protect the historic character of Main Street.

Downtown Main Street Parking Availability

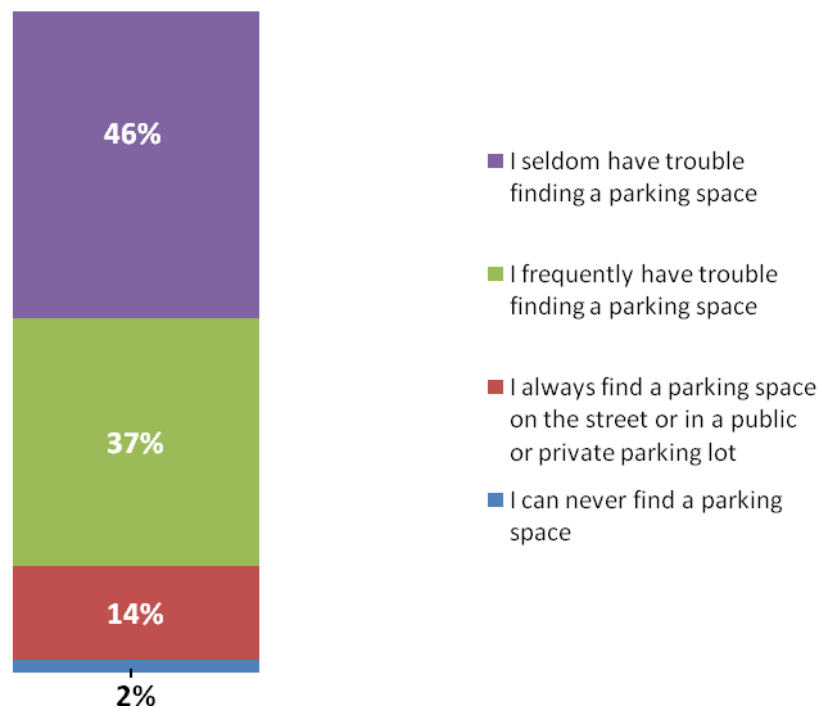


Figure 19. Opinions on parking availability in Downtown Geneseo (Source: Stuart I. Brown Associates)

Only 15 percent of the respondents had trouble finding where the public parking lots were located. The Village recently made access to public parking easier by constructing a new entrance from Center Street to the municipal lot.

Some responses suggested, however, that there was difficulty in finding lots that were private. For instance, one participant said “I am aware of the public parking but the private lots are not clear.”

Survey Results – Safety

Survey participants were also asked their opinions about vehicular and pedestrian safety at various intersections within the corridor. They were asked to select the top three intersections that could benefit from safety improvements. Again, the results reinforce some of the existing condition findings in previous sections.

The results also agree with some of the survey findings regarding congestion above. Congestion is an issue on Main Street, and as Figure 20 suggests, safety is also an issue.

Need for Safety Improvements

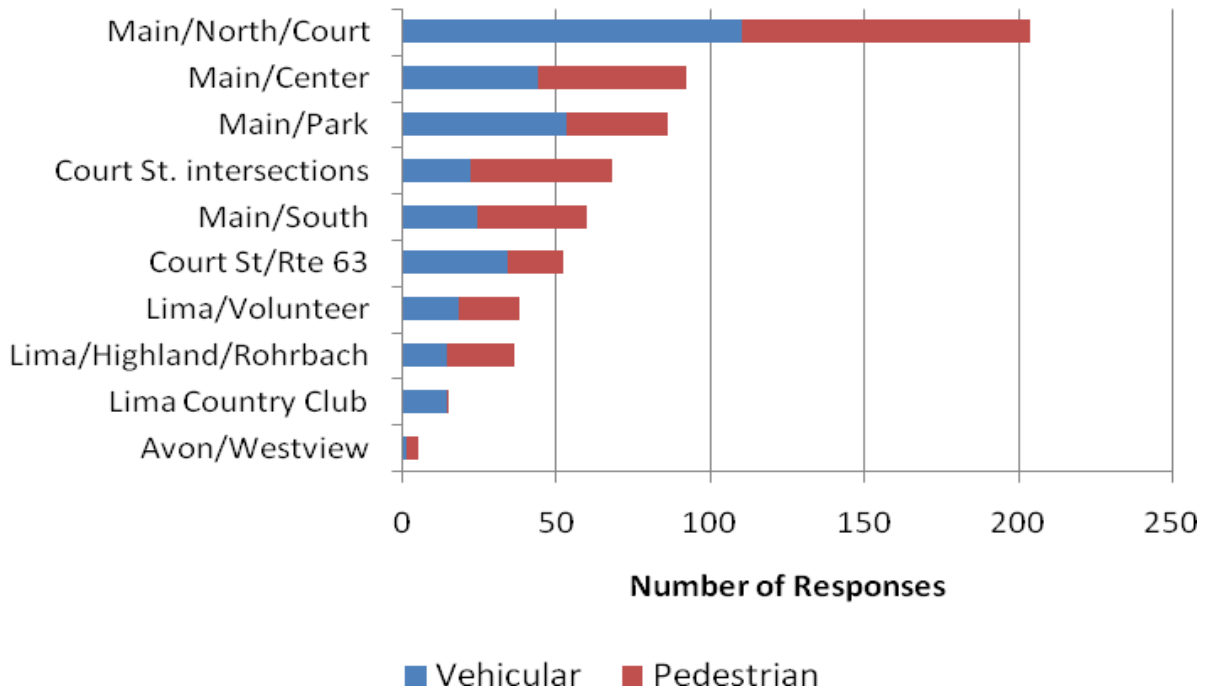


Figure 20. Survey responses regarding vehicular and pedestrian safety improvements needed (Source: Stuart I. Brown Associates)

Similarly, Court Street also has both circulation and safety issues according to survey respondents.

Survey Results – Roadway Conditions, Aesthetics

The participants' opinions of roadways within the corridor were very favorable (Figure 21). All of the survey respondents thought Main Street and Avon Road (State Route 39) were in good or fair condition. Close to 90 percent thought Lima Road and Court Street were in good to fair condition.

The only roadway with any unfavorable ratings was North Street. Forty percent of respondents felt North Street was in poor to very poor condition.

Rating of Roadway Physical Conditions

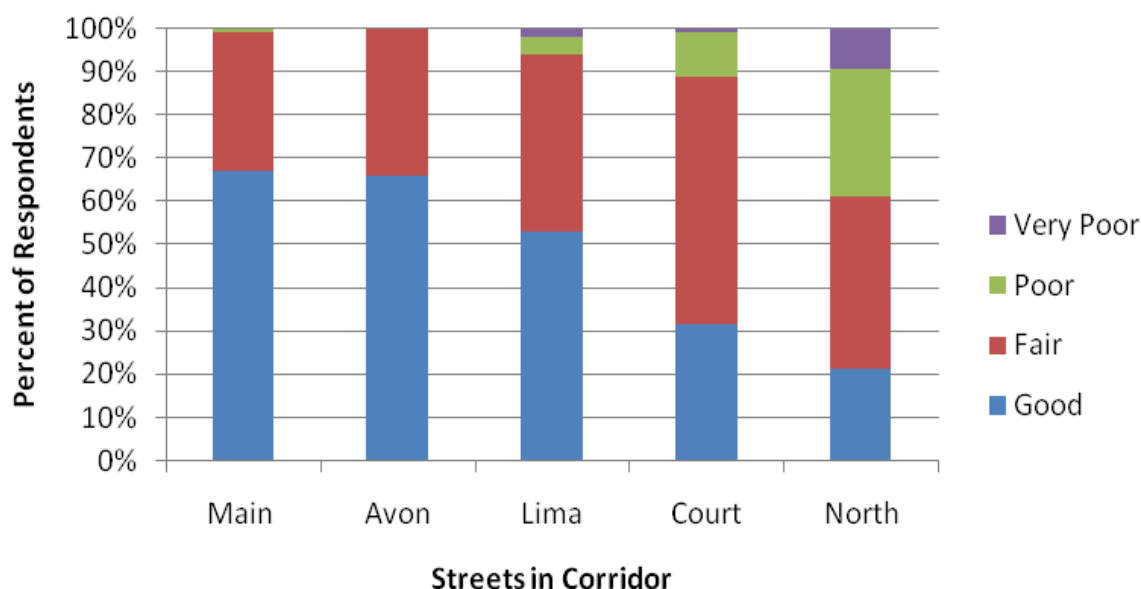


Figure 21. Rating of Roadway Conditions (Source: Stuart I. Brown Associates)

Survey participants also thought the following views should be preserved:

- Views of the Valley
- Bear Fountain
- Courthouse

Additional lighting was also suggested by survey participants for the following areas:

- Main/North/Court Intersection
- Court Street
- Lima/Volunteer intersection

Survey – Lack of Consensus Issues

Several issues that were asked on the survey did not garner consensus including extension of sidewalks and installation of bicycle lanes. Questions 9 and 10 in the survey specifically asked if respondents would use new sidewalks if they were constructed on the west side of Lima Road and the south side of Court Street (west of University Drive). On both questions, roughly 50 percent of the survey respondents replied they would use the sidewalks and 50 percent indicated they would not use the sidewalks. A review of the additional comments related to the questions revealed that those who would not use the sidewalks did not live or work near them and therefore had no reason to use them.

A similar response was received for question 11 which asked if respondents would use bicycle lanes if they were established in the study area. Again, based on additional comments entered for question 20, bikers would use bike lanes if they were established while those who did not own bikes would not use them.

Survey – Additional Ideas Suggested

Participants who took the survey provided many constructive ideas for improvements to the corridor. Two of these improvements were repeated throughout the survey. Many participants suggested that there was a need for a community program to educate both drivers and pedestrians about the rules of crosswalks. Respondents believed there was confusion from both drivers and pedestrians about the rules of crosswalks and who has the right of way.

Another item that appeared frequently in the survey was the issue of delivery trucks on Main Street. According to respondents, the trucks often park in the middle of Main Street which blocks visibility for both drivers and pedestrians. Delivery trucks also will park in the angled parking spaces which inhibits an adjacent driver's visibility when backing out of the parking spaces into Main Street.

2

Issues and Opportunities

A comprehensive analysis of existing conditions, demographics and public input is necessary prior to developing recommendations and alternatives to improve circulation, parking, safety and aesthetics in the study area. Whereas the previous chapter focused separately on each individual data source, this section analyzes the interdependence and relationship among the data.

This chapter also summarizes the most important issues that have emerged within the study area. Figure 27, at the end of this chapter, provides a succinct illustration of issues and opportunities within the study area.

Framework for Analysis

The analysis is based on an assortment of recurrent themes that emerged on existing conditions. These themes or trends were important in choosing which issues and opportunities to assess and analyze. Some of the key trends, policies and concepts that provide direction for the analysis below include:

- Preservation of Geneseo's small town character.
- Encouragement and protection of the pedestrian network in the study area.
- Promotion of vehicular and pedestrian safety.
- Provision for continued growth.
- Management of through traffic.
- Improvement of southwest to northeast traffic flow and vice versa.

Pedestrian Issues and Opportunities

The pedestrian transportation network is an important means of circulation for the population within the corridor. As stated previously, approximately one third of individuals in the village utilize the pedestrian network as a means of travel.

The major pedestrian issues and opportunities that have been identified in the corridor are outlined in the following sections.

Need for Additional Sidewalks

The study area is fortunate to have a good pedestrian network of sidewalks that are well utilized by residents and students, especially in the historic Village of Geneseo. However, several Village and Town areas within the study area that were developed after 1950 were either built

without sidewalks or built with sidewalks that were not interconnected to the existing pedestrian network.



Figure 22. Lima Road Sidewalks—sidewalks are available on the east side but not the west side north of Kimberly Drive (Source: Stuart I. Brown Associates)

One area lacking sidewalks identified in the Pedestrian Committee Report as well as by the steering committee and the public was Lima Road (Figure 22). Lima Road is a collector street that provides access to residential and commercial developments within the northeast section of the study area. Currently, there are no sidewalks on west side of Lima Road starting at Kimberly Drive north to the limits of the study area at Country Club Road. Similarly, there are no sidewalks starting approximately four building lots prior to Volunteer Drive to the limits of the study area on the east side of Lima Road.

Construction of a short section of sidewalk on the west side of Avon Road up to the crosswalk near Westview Crescent, near the Livingston County Government campus, was identified as a need by steering committee members and those attending the community workshop. That sidewalk was recently completed.

Integration of Existing and Future Trail Connections with the Sidewalk network

The Genesee Valley Conservancy has developed a plan for a pedestrian trail network throughout the Village and Town of Geneseo. Many of the existing and proposed trails in the Conservancy's plan intersect the study area on Lima Road and connections are proposed to existing or new sidewalks and bike lanes.

In the summer of 2009, a short connecting trail was constructed between Lima Road and the Island Preserve between Kimberly Drive and Melody Lane. Currently, the trail connection to the Preserve will “dead end” on Lima Drive where there are no sidewalks. The same “dead end” situation will occur on other trail sections north of Melody Lane where the Conservancy is planning additional pedestrian connections to the preserve.

The integration of existing and future trails with existing and future sidewalks in the study area is important for several reasons. Most importantly, the trails will provide residents with pedestrian access to recreational areas.

In addition, the trails will provide an alternative transportation choice for residents. The proposed trails are intended to afford schoolchildren access to the Geneseo Central School campus through the Island Preserve property and also provide pedestrian access to the commercial district on Route 20A. If the trails reduce the number of cars traveling to the school and commercial districts within the study area, they may help alleviate some of the vehicular traffic using Village streets.

Pedestrian Crossings

Pedestrian safety within the corridor is also a significant concern of the steering committee and the public. The study found that pedestrian crossing counts are significant on both Main Street and Court Street.

Fortunately, the crossings are facilitated by updated or new crosswalk markings. With the exception of the mid block crossing between the McClellan House and St. Michael’s Church on Main Street, there are no pedestrian warning signs or pedestrian intersection signs to alert vehicular traffic of potential pedestrian crossings at some of the highly utilized crosswalks. Many communities place small pedestrian crossing signs directly on the crosswalks in the street to warn motorists of pedestrian crossings (Figure 23). In addition, pedestrian oriented communities also place pedestrian warning signs prior to high volume pedestrian zones. While these signs may not be appropriate on all of the crosswalks within the study area, and they are not particularly attractive or compatible in the historic district, they may be beneficial at high volume areas such as along Main Street downtown and Court Street near SUNY Geneseo, as well as other crosswalks (i.e., Main/Court/North) where there are high pedestrian crossings.



Figure 23. Example of Pedestrian Warning Signs

Roadway Infrastructure, Safety and Circulation Issues and Opportunities

The existing road network in the study area consists of State Route 39 (Main Street and Avon Road), Court Street, North Street and Lima Road. Issues and opportunities for the roadway system include their condition, safety, and traffic circulation.

Condition of the Roadways

The roadway conditions overall within the corridor are generally fair to good with the exception of North Street. The road has been identified by the Village, the steering committee and residents as a concern. Pavement quality, drainage, shoulder condition aesthetics and overall width are the major areas of concern with North Street. Several alternatives for physical and aesthetic improvements to the street will be considered in the section on recommendations.

Another road improvement project identified by members of the steering committee and with at least one group during the Design Workshop was Bank Street. Bank Street is the principal pedestrian entry into the SUNY Geneseo campus from the Village and also an access road to several private parking areas behind the Main Street business district. While improvements to the full length of Bank Street are beyond the scope of this study, options to improve the intersection of Bank and Main to provide an attractive gateway into the campus and parking areas should be considered.

Safety of Intersections

Visibility at practically all the intersections along Main Street is a safety problem. Common intersection visibility issues include:

1. *Change in topography/slope*: While Main Street is on a relatively flat ridge, approaches to Main Street at School, Bank, University and Court Streets are on steep slopes. Court Street is also steep, at a 12 percent angle immediately west of Main Street. The change in topography limits the visibility of vehicles on Main Street from the side streets and vice versa.
2. *Parked Cars*: At all of the intersections on Main Street, the presence of parked cars at intersections reduces vehicular and pedestrian visibility. The problem is compounded at intersections that also have changes in topography. Based on the parking analysis, there is an excess supply of spaces on Main Street and therefore, an opportunity exists to eliminate parking spaces at intersections to improve visibility.
3. *Conflicts with Pedestrians*: Because of the high volume of pedestrian traffic, there are conflicts between vehicles and pedestrians at crosswalks.
4. *Lighting*: Residents specifically noted that lighting levels at the Court/North/Main Streets intersection and along Court Street should be upgraded to improve visibility at night.
5. *Confusion over Rules of the Road*: The intersection at Center/Main Streets consists of a traffic circle with crosswalks on all legs. This is confusing to both pedestrians and drivers. Signage posting the rules of the road may improve safety at the intersection.
6. *Delay*: While intersection delays are primarily a Level of Service issue to be covered in the next section, high levels of delay at the Court/ North and Park Street intersections with Main Street may cause drivers to accept smaller gaps in opposing traffic when entering the intersections, causing hazardous situations.
7. *Intersection Visibility*: The visibility of northbound vehicles on Main Street for westbound vehicles on North Street is not sufficient. Approximately 400 feet of sight distance is required and the current sight distance is only 170 feet.

Excessive Speed on Roadways

Speeding is also a safety problem in the study area because traffic passes through several residential areas. Steering committee members and the public stated that speeding on Lima Road and Avon Road was excessive. To alleviate the speeding problems, committee members and the public suggested petitioning the County and State to reduce the speed limit prior to Country Club Road on Lima Road and prior to Westview Crescent on Avon Road. Speed reductions along some of these road sections may be warranted because of the presence of schoolchildren, pedestrians and the residential character of the areas.

Another section of the study area that has excessive speeding according to the steering committee and the public is North Street. The character of the road, with no defined travel lanes, widths of up to 50 feet, and slopes of three to four percent toward Main Street may be factors that encourage speeding.

Circulation Issues and Opportunities

The current 2-way stop control at the Court/North/Main intersection (Figure 24) creates poor levels of service for the eastbound and westbound approaches (Court and North Streets). The Court Street and North Street approaches to the intersection have a failing level of service during both the morning and afternoon peak traffic hours. Since Main Street and Avon Road approaches to the intersection are not controlled, north-south traffic experiences little delay.

The accident history at this location indicates there may be a need to improve the safety of the intersection. Right angle accident problems can be reduced by adding control to the free flowing approaches. An all-way stop or traffic signal may effectively solve the existing problem. Traffic control would also improve sight distances by reducing the need to see several hundred feet up the crossing streets.

A signal warrant analysis conducted in conformance with the Manual of Uniform Traffic Control Devices was conducted for the Court/Main/North Streets intersection. Geneseo is considered an isolated community with a population less than 10,000. This allows the use of 70% of the threshold volume compared to the existing volumes. Both the eight hour and four hour signal warrants are satisfied by the traffic volumes recorded for the intersecting streets. The eight hour warrant requires that the main line (Main Street) combined traffic volume reach 350 vehicles per hour (vph) for eight hours and the higher of the minor street approaches (Court and North) reach 105 vph for those same hours.

For the Four-Hour warrant, data are plotted on a chart to compare minor street volumes and major street volumes. At least four data points must fall above the appropriate line to satisfy this warrant. The four highest volume hours were plotted for this intersection and fell well above the line for one lane approaches.

The data recorded indicate that the minor street approaches, Court and North Streets, actually had higher combined volumes than Main St. and Avon Rd. after 5:00 in the evening. Even at equal volumes it is reasonable that some other form of traffic control would benefit the operation of this intersection for both safety and from a level of service perspective. Figure 9 in the previous chapter summarizes the average weekday hourly traffic volumes.



Figure 24. The Court/North/Main Intersection (Source: Stuart I. Brown Associates)

Other major constraints with the Court/North/Main intersection include:

1. *Topography/slope*: Court Street slopes significantly away from the intersection starting immediately west of the stop sign.
2. *Historic properties and a Historic District*: The entire intersection is surrounded by significant historic properties including a monument, a church, the Livingston County Courthouse and several smaller historic residences. Main Street is within the National Trust Historic District, which would necessitate State Historic Preservation Review of any changes if state or federal funds were used for the improvements.

Three options under consideration for the intersection are an all-way stop control, a traffic signal, and a roundabout. To evaluate the effectiveness of each alternative, a future level of service (year 2028) for each approach was determined using comparative traffic growth projection data obtained from the Genesee Transportation Council (GTC) for similar communities within the Transportation Management Area (TMA). Geneseo is not in the TMA. Among the communities in the TMA, the Village of Brockport was comparable to the Village of Geneseo in population and other growth factors. Therefore, the traffic growth rates for Brockport were used to determine future traffic and delay for each approach at the intersection.

The all-way stop would initially improve the afternoon level of service on North and Court Streets from an F to a C and D respectively. However, it would reduce the level of service on Main Street from an A to a D since those approaches would go from an uncontrolled, free flow condition

to a controlled condition. The overall intersection level of service would be D. However, based on traffic growth rates from general population and development trends, the level of service would again fall below accepted levels sometime before 2028.

A traffic signal was also considered since existing traffic volumes satisfy the warrants for a signal. Level of service with a signal for all approaches is B or better in both the morning and afternoon peak hours. With projected traffic volumes the LOS remains at B or better for all approaches. Both the all-way stop control and the traffic signal should reduce the occurrence of right-angle accidents.

The roundabout option has a positive impact on the roadway level of service and also would reduce right angle accidents and the severity of accidents. Nonetheless, installation of the roundabout would involve the realignment of all four streets and the acquisition of historic properties. Costs, including acquisition, design, construction, and landscaping would also be significant. Installation of the roundabout would also involve a significant review process that includes assessments by the State Historic Preservation Office and NYSDOT. In comparison, a four way stop would require minimal expenses for two more signs and modifications to the flashing signal. A new traffic signal would cost approximately \$100,000 and is not likely to require property acquisitions.

With these options, a potential disadvantage with improving the level of service of North and Court Streets is that it could encourage greater traffic volumes on those streets. A major dilemma, therefore, is the conflicting goals to improve circulation in the corridor and at the same time, discourage through traffic.

Roadway Aesthetics

Figure 10 in the previous chapter illustrated the overall issues and opportunities regarding aesthetics and urban design on Main Street. This section will focus on:

- Design and aesthetic issues not covered in the last chapter on Main Street.
- Urban design issues and opportunities outside of the Main Street area.
- Additional design issues to be considered relating to potential alternatives or improvements
- The relationship between design improvements and pedestrian and vehicular circulation and safety.

Views

The last chapter identified the attractive and unique visual termination feature provided by the Livingston County Courthouse for northbound travelers on Main Street. This is an asset that should be preserved according to survey respondents and any alternatives for improvements at the Court/North/Main Street intersection should not alter the view of the Courthouse. On the contrary, any improvements should enhance the view. Another important view to preserve and enhance,

based on responses in the survey, is the view of the valley which can be seen westbound on Court Street (Figure 25).



Figure 25. Views of the Genesee River Valley from Court Street (Source: Stuart I. Brown Associates)

Roadway Conditions

In the previous section, the condition of North Street was noted as a potential contributing factor to speeding. The condition of North Street is also a negative visual impact for both vehicular and pedestrian travelers along the street as well as residents of the street. Negative visual impacts of North Street include:

1. *An undefined and meandering edge of pavement:* While a survey of the street is not part of this study, the width of North Street measured from aerials varies between 35 feet and 50 feet. The wider section is located adjacent to the church at the west end of the street. The lack of a clear “edge” to the roadway gives a somewhat chaotic look to the street which is emphasized and perceptible when there are cars parked on the street.
2. The area of the street where the width is 50 feet creates the appearance of a four lane highway, especially when there are no parked cars.

However, the excessive amount of pavement offers opportunities to enhance the street with additional green space and other amenities.

Lighting

While residents proposed an increase in the intensity of lighting levels for Court Street, they suggested both increased lighting levels and the installation of decorative lighting standards on Main Street.

Main Street is currently illuminated by cobra head lighting standards. If the Main Street section of Route 39 were ever reconstructed, it would provide an opportunity to install decorative lighting along the length of Main Street. The lighting standards would need to be designed to illuminate both the roadway for vehicles and the sidewalks for pedestrians. A short term and less expensive opportunity may be to install decorative lighting at key points along the length of Main Street including gateways and key intersections.

Gateways

Unlike other communities in the region that have experienced significant sprawl, Geneseo has clearly defined boundaries between developed areas and less developed areas. This is particularly true within the study area. Consequently, the opportunities to define gateways in the study area are natural.

The most significant gateway opportunity into the study area is the intersection of Route 20A and Main Street (Figure 26). Currently, this entrance to downtown is enhanced by an attractive landscaped median strip. Additional landscaping opportunities exist to improve the eastern side of Main Street in this area by increasing the width and overall size of the parkways in front of the gas station property at the intersection. Also, if the gas station were redeveloped in the future, there may be an opportunity to reconfigure the site plan and architectural features to be more compatible with the downtown and overall historic character of the area. A roundabout at this location (as recommended by the 20A Access Management study) would provide an excellent opportunity for a gateway feature such as a clock or statue accented by landscaping.



Figure 26. The Route 20A and Main Street intersection provides an opportunity for additional gateway enhancements
(Source: Stuart I. Brown Associates)

Another critical gateway into the community is the intersection of Route 63 and Court Street. This gateway is important because Route 63 is a connecting route between the Thruway and Route 390 and it carries a significant amount of non-local travelers, including those traveling between Canada and the east coast megalopolis from New York City to Washington, D.C. Although there is another gateway into the community at the Route 63 bypass to 20A, this Court Street/Route 63 gateway brings travelers directly into the center of the Village. However, improvements to both Route 63 gateways should be coordinated.

The last gateway into the community is the intersection of Lima Road and Volunteer Drive. Since this area is relatively undeveloped compared to the rest of the corridor, there are opportunities to improve this gateway prior to any future development and possibly coordinate those improvements with traffic calming or speed reduction techniques.

Other Issues and Opportunities

Several other issues that were within the scope of this study were considered but were not deemed significant based on analysis of existing conditions and public input included:

1. **Parking:** Based on the analysis of existing parking, there was an excess supply of parking within the corridor of approximately 30 percent. In addition, survey respondents did not consider it a major issue and more than 60 percent of survey participants never or

seldom had a problem finding parking. The only issue in finding parking related to the private parking behind the buildings on the west side of Main Street which the Village or other local governments cannot enforce or promote. Also, since parking supply and demand seem to be in balance currently, the development of private lots into anything other than parking should be monitored and action taken to develop additional public spots if necessary.

2. *Land Use*: Overall land use was not a significant issue primarily because both the Village and Town recently adopted new zoning regulations that protect and enhance the small town character of the community. Additional zoning for large scale, traffic generating commercial uses was not proposed in either document. Nonetheless, existing land use was an ancillary issue in relation to the cut through nature of traffic, which primarily travels through residential neighborhoods within the study area such as North Street and Lima Road.

Other issues that emerged during the analysis and public input that were minor issues included:

1. *Bus facilities*: Despite the dramatic increase in bus ridership discussed in the existing conditions section, survey and workshop participants did not bring it up as a major concern. That may be a result of the lack of students who participated in both public input opportunities. Nevertheless, opportunities for the installation of bus shelters in strategic locations with high pedestrian counts should be considered.
2. *Communications/Marketing*: Despite having only a weekly newspaper, residents participating in the survey and the workshop were well informed of the issues in the community and specifically within the study area. The major issue brought up in the survey was the lack of understanding by both motorists and pedestrians of the rules of the road regarding the intersection and the traffic circle at Center and Main.

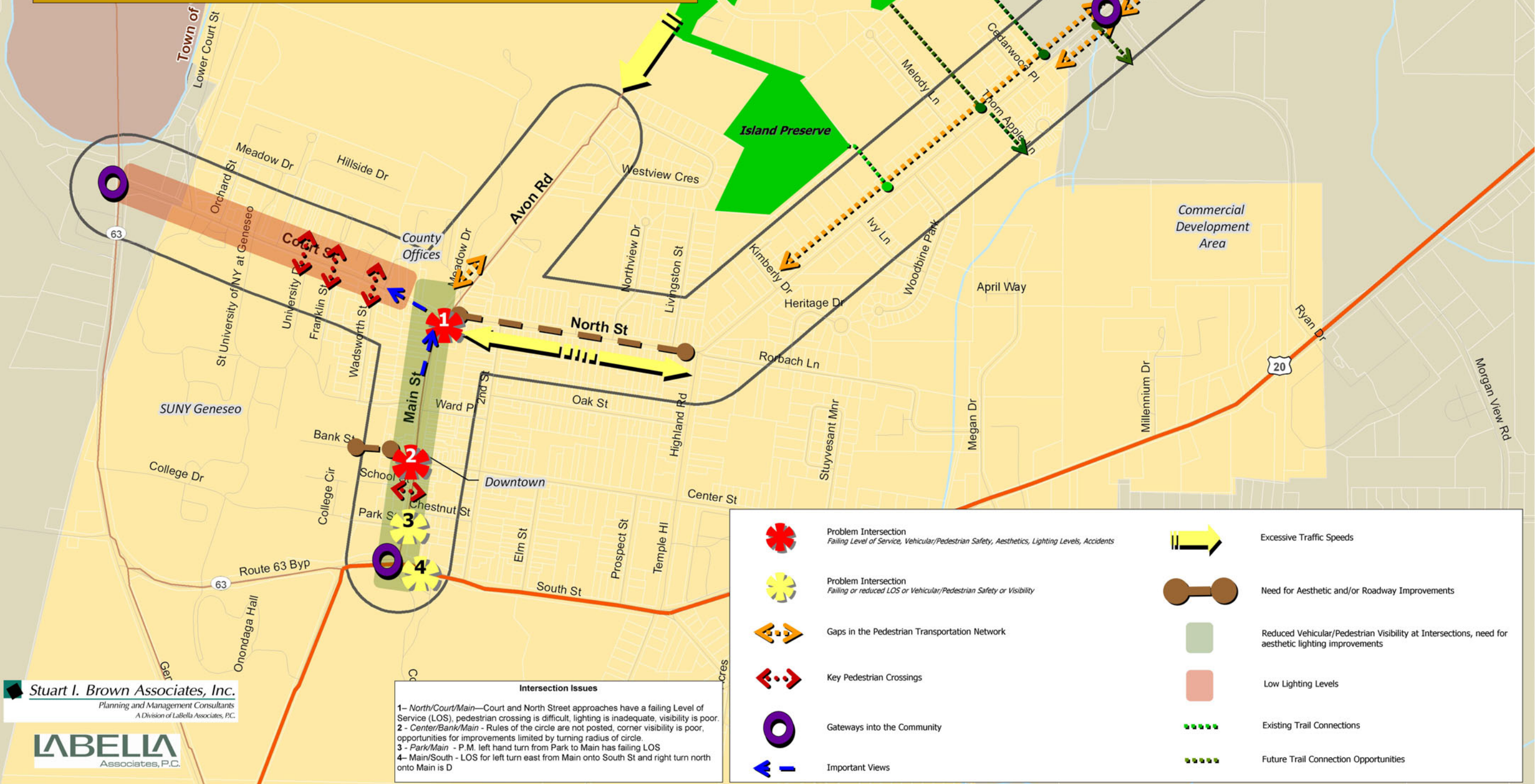
Figure 27. Issues and Opportunities Map

Geneseo Circulation, Parking, Safety and Aesthetics Study - Route 39 / North Street / Court Street Corridor



Issues and Opportunities Framework

- Preserve Geneseo's Small Town Character.
- Encourage and Protect the Pedestrian Network.
- Promote Vehicular and Pedestrian Safety.
- Plan for Growth in Corridor - Population, Housing, Commercial, Employment - Village to 390.
- Manage through traffic, especially in residential areas.
- Improve southwest to northeast traffic circulation.



3

Alternatives Development

The previous chapters of this report described existing conditions, plans, and public input that led to the identification of significant issues and opportunities in the study corridor, including intersection and roadway concerns. The intersections of Court/North/Main Streets and Main/Park Streets, and the condition of North Street, were identified through the evaluation of existing conditions and the community workshop and survey as having the most significant issues that warranted attention.

The goal of this chapter, therefore, is to determine the most feasible intersection and roadway alternatives that should be evaluated in further detail leading to specific actions being recommended for implementation. Alternatives will be evaluated using several factors including the projected level of service in year 2028, safety impacts, multi-modal considerations, aesthetic impacts, costs and other factors.

Intersection Alternatives Analysis

Currently, the Court/North/Main Streets intersection's east bound and west bound approaches have a level of service E. In addition, the accident rate at the intersection is above the statewide average. In order to determine the most feasible options to improve the intersection, benefits, costs, and other pros and cons of each intersection alternative have been evaluated and described in this section.

The alternatives identified for the Court/North/Main Streets intersection are as follows:

- *No build*: Do not make any changes to the intersection.
- *All-way stop*: Install stop signs at each of the four intersection approaches.
- *Traffic Signal*: Install signal heads on signal arms or span wires at all the intersection approaches. The potential layout of the traffic signals is shown in Figure 28.
- *Roundabout*: Construct a four leg roundabout at the intersection. Roundabouts are circular intersections where traffic flows one way around a traffic island. A potential layout of a roundabout at the intersection is illustrated in Figure 29

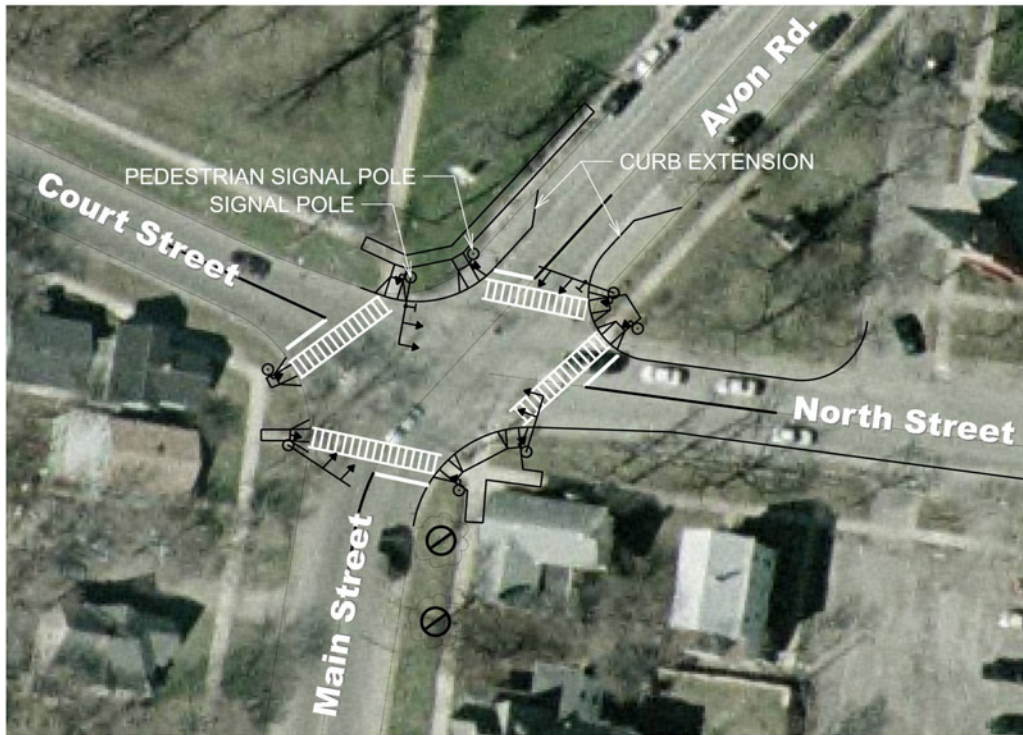


Figure 28. Illustration of the potential location of signal arms at the Court/North/Main intersection (Source: LaBella Associates)

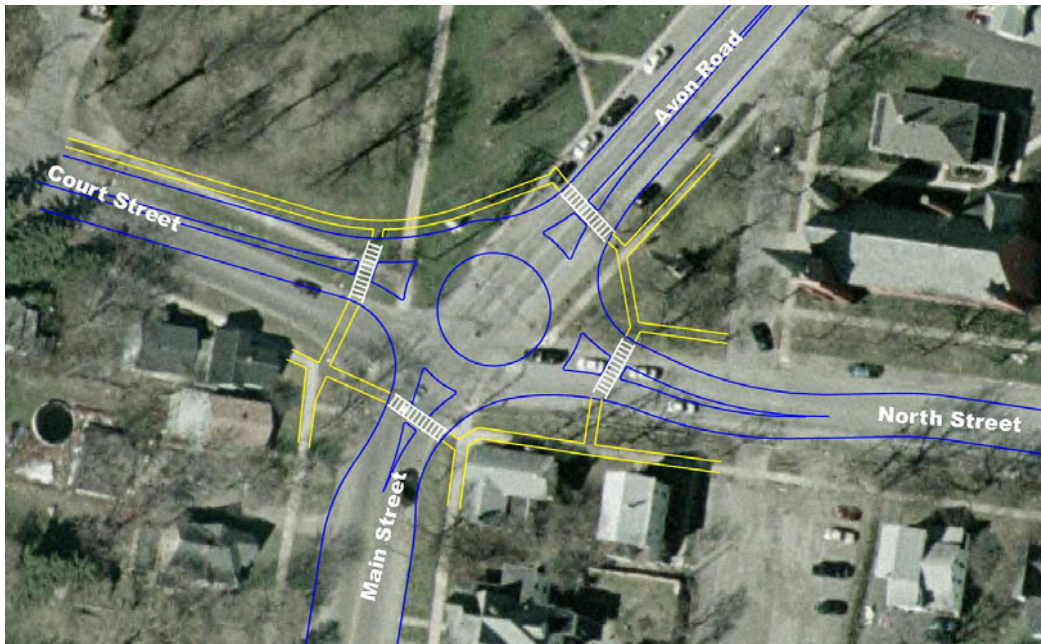


Figure 29. A potential layout of a roundabout at the Court/North/Main intersection (Source: LaBella Associates)

At the other end of Main Street, the Main/Park Streets intersection has a failing level of service for northbound left turns from Park Street in the P.M. hours. The following alternatives were considered to address the specific issues at this intersection:

- *No build*: Do not make any changes at the intersection.
- *No left turn from Park*: Disallow left turns from Park in the P.M. hours.
- *Convert Park Street from a two way street into a one-way westbound street*.
- *Add an east bound left turn lane on Park Street*.
- *Add a northbound left turn lane on Main Street*.

Table 10 depicts the impacts on the projected intersection level of service in year 2028 and other important criteria identified by the community and steering committee. These factors include safety, pedestrian friendliness, bicycle friendliness, aesthetic impact and cost for each alternative. The projected levels of service are for the P.M. hours because that is when conditions were unacceptable for both intersections under current conditions.

Table 100. Intersection Alternatives Analysis Table

Sources: LaBella Associates, Stuart I. Brown Associates)

Intersection Alternative	PM Peak Hour LOS 2028					Safety Impact	Bicycle Impact	Pedestrian Impact	Aesthetic Impact	Cost	Other Pros/Cons
	Approaches				Overall						
	EB	WB	NB	SB							
Court/North/Main											
No build	F	F	A	A	----	POOR	FAIR	FAIR	GOOD	----	
All-way stop	F	D	F	F	F	FAIR	FAIR	GOOD	GOOD	LOW	
Traffic signal	B	A	B	B	B	GOOD	GOOD	GOOD	FAIR/ POOR	MEDIUM	Views of courthouse may be impacted depending on location of signal arms
Roundabout	A	A	A	A	A	FAIR	POOR	FAIR	FAIR	HIGH	Acquisitions, reviews, historic setting, topography, reduces seriousness of accidents
Park Street/Main	Left / Right		Left / Thru								
No build	F/F		B/B		-----	POOR	FAIR	FAIR	GOOD	-----	
No left turn from Park	---/D		B/B		-----	GOOD	GOOD	GOOD	GOOD	LOW	Will increase traffic on other streets (Court/Rt. 63)
Park one way WB	---/---		B/B		-----	FAIR	GOOD	GOOD	GOOD	LOW	Will increase traffic on other streets (South/Court/Rt 63)
Add EB left turn Park	F/D		B/B		-----	FAIR	FAIR	FAIR	FAIR	MEDIUM	Requires road widening/sidew alk reduction
Add NB left turn Main	F/F		B/---		-----	GOOD	FAIR	POOR	FAIR	LOW	Does not help Park Street traffic

Eliminated Alternatives – Court Street/North Street/Main Street Intersection

Based on the criteria in Table 10, several alternatives for the Court Street/North Street/Main Street intersection can be eliminated from further consideration:

No Build: The no build option does not solve any problems and the level of service for the east bound and west bound approaches to the Court/North/Main Streets intersection will be F. In addition, without improvements to the intersection, it is anticipated that the accident rate (already above the state average) will not change or get worse. In addition, a no build option will not improve the pedestrian and bicycle friendliness of the intersection, which currently allows north-south traffic to flow freely without stopping at the intersection.

All way Stop: While an all-way stop initially improves the level of service for east bound and west bound vehicular traffic at the intersection, over a twenty year period the level of service would decline to an F for the east bound approach and to a level of service D for the west bound approach. Moreover, the level of service for the north and south bound approaches would decline from an A to an F. Although an all-way stop would be beneficial for pedestrians crossing Main Street, the benefits of the intersection alternative on safety and bicyclists are only fair.

Acceptable Alternatives – Court Street/North Street/Main Street Intersection

Two alternatives for the North/Court/Main Streets intersection would provide acceptable levels of service and other benefits. The alternatives that should be considered for the intersection include:

Traffic Signal: A traffic signal would improve the level of service for both the east bound (Court Street) and west bound (North Street) approaches to the intersection and would only decrease the level of service from an A to a B for the north bound (Main Street) and south bound (Avon Road) traffic. The safety level of the intersection would also be improved as traffic signals are generally favorable for pedestrians and bicyclists because traffic must come to, and remain at, a full stop while the signal is red. One disadvantage of a traffic signal could be its visual and aesthetic impact on the view of the Courthouse, which could be mitigated by strategic placement of the signal pole and arms.

Roundabout: The roundabout would improve the level of service for the east bound and west bound approaches to an A and would also maintain a level of service for the north and south bound traffic at an A level of service. However, there are some potential drawbacks with the roundabout:

- The safety impact is only fair because roundabouts may reduce the seriousness of accidents at the intersection but not necessarily the number of accidents.
- Roundabouts are not bicycle or pedestrian friendly. Legally, bicyclists must stop at the intersection, get off their bikes and cross on foot. Pedestrians may see some benefits when crossing on Main Street and Avon Road because the roundabout acts as a traffic calming device, but in reality cars never come to full stop when in the roundabout or when they are entering or exiting the circle.
- The roundabout's aesthetic impact on the area may also be detrimental because the intersection's appearance will be impacted. Portions of the triangle with the statue and the County's Courthouse's lawns would need to be removed and replaced with asphalt roadway.
- Reviews and approvals by both the New York State Department of Transportation and the State Historic Preservation could take a significant amount of time.
- The cost, compared to other options, is high because of the property acquisition costs as well as the design and construction costs.

Eliminated Alternatives – Park Street/Main Street Intersection

Based on the criteria in Table 10, several alternatives for the Park Street/Main Street intersection can be eliminated from further consideration:

No Build: The option has no negative visual impacts no costs, but the level of service for the northbound left turn lane would remain at a level of service F.

Convert Park Street from a two- way street into a one-way westbound street: While this certainly would eliminate any turning problems at Main Street during the PM hours, it would also eliminate access to Main Street during the AM and midday hours when levels of service are acceptable. Also, the change would add traffic to other roadways in the corridor, including Court Street. The change may also not be suitable for SUNY Geneseo staff, students and visitors.

Add an eastbound left turn lane on Park Street: This option improves the level of service for those making right hand turns from Park Street to Main Street, but it does not improve the level of service for left hand turns. A portion of the sidewalk on the north side would also need to be removed and the road widened to accommodate the left turn lane at an additional cost to the Village.

Add a northbound left turn lane on Main Street: This option would do nothing to improve the level of service for left hand turns from Park.

Acceptable Alternative – Park Street/Main Street Intersection

The acceptable alternative for the Park Street/Main Street intersection is the no left turn allowed during the PM hours. Traffic flow and safety would be improved because vehicles making right hand turns will not have to wait for vehicles making left hand turns. While the PM hours studied were 4 p.m. to 6 p.m., the time restriction on left hand turns could be narrowed to the busiest hour when SUNY Geneseo employees finish their work day. One downside to this option is it may increase traffic on other streets around SUNY Geneseo such as Court Street and Route 63 during the restricted turn hours.

Roadway Alternatives for North Street

Based on the survey, the community workshop and the existing conditions report, North Street had the worst roadway conditions of all the roadways in the study area. North Street's roadway problems have been noted in the previous chapters of this report.

Survey respondents and workshop participants also requested additional landscaping on the street and the need for traffic calming by narrowing the road to slow traffic in the residential neighborhood. The desire for additional landscaping and road narrowing was based on participants' perceptions that the existing paved area for traffic and parking was excessive.

An approximate existing cross section of North Street is shown in Figure 30 (please note that a "parkway" is known as a "boulevard" in the Geneseo area).

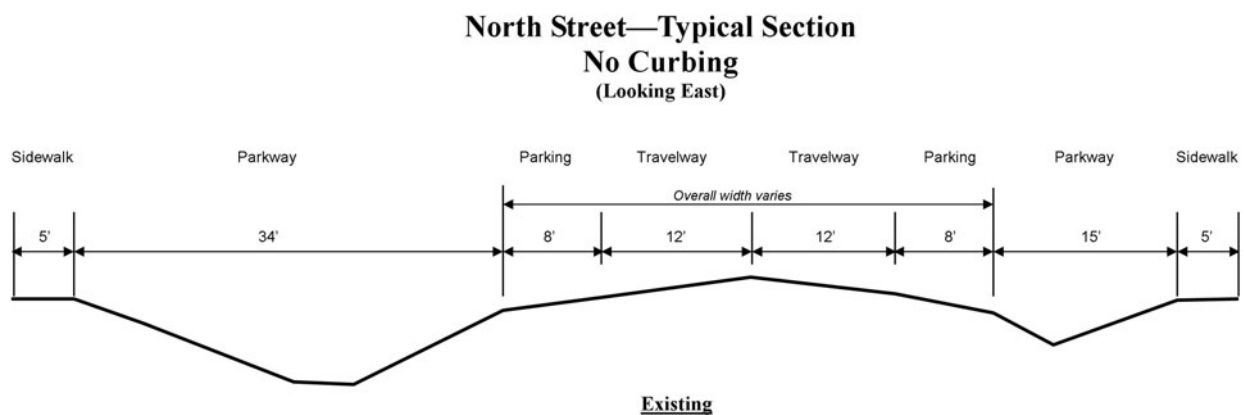


Figure 30. Existing cross section of North Street looking east (Source: Stuart I. Brown Associates, LaBella Associates)

The cross section illustrates the locations of the drainage swales in the parkway sections of the street. It also shows the roadway's layout that includes two travel lanes and two parking lanes. The overall width of the paved area varies significantly from approximately 40 feet to 50 feet and the north parkway varies between 25 to 34 feet.

Acceptable Alternative – North Street Roadway – No Major Reconstruction

As roadway reconstruction projects often take years to get funded through the Transportation Improvement Project (TIP) program, a “no reconstruction” alternative was considered for North Street that meets the landscaping and road narrowing objectives preferred by survey and workshop participants. The no reconstruction option involves the extension of the parkway on the south side of the roadway by eliminating the parking lane without any major reconstruction of the roadway or drainage. The roadway would need to be saw cut so the asphalt could be removed and replaced with topsoil and sod. Figure 31 shows the no reconstruction alternative.

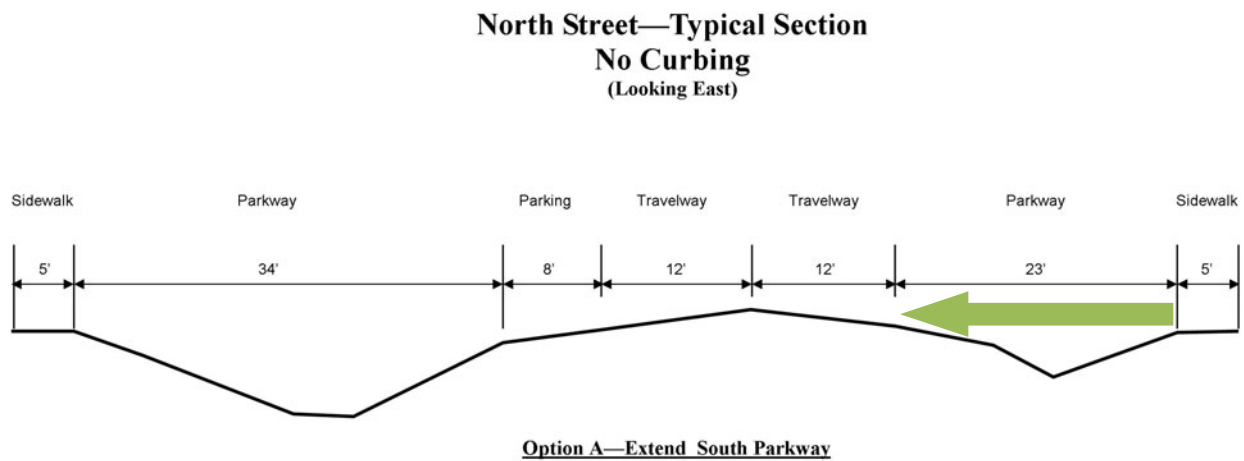


Figure 31. Option A – North Street No Reconstruction Cross Section (Source: Stuart I. Brown Associates, LaBella Associates)

Acceptable Alternative – North Street Roadway - Reconstruction

There are several options for North Street if it were to be fully reconstructed. Full reconstruction would involve replacement of the drainage swales with an underground storm drainage system. The reconstruction of the storm drainage system would permit the construction of a level street cross section and the installation of curbing. The three potential options for reconstruction of North Street are as follows:

North Street Reconstruction Option B – Two Lanes, One Parking Lane, Substantial Parkways

Option B would provide two 12 ft. travel lanes, a parking lane and two large parkways on both sides of the road. This option narrows the paved surface to 32 feet which is eight feet narrower than the narrowest section of the existing roadway. The road narrowing should act as a traffic calming factor for vehicles.

The large parkways could potentially permit the planting of a double row of trees (or an additional row where trees are already planted). Appropriate trees would need to be selected so that their mature canopies do not interfere with each other. Option B is illustrated in Figure 32.

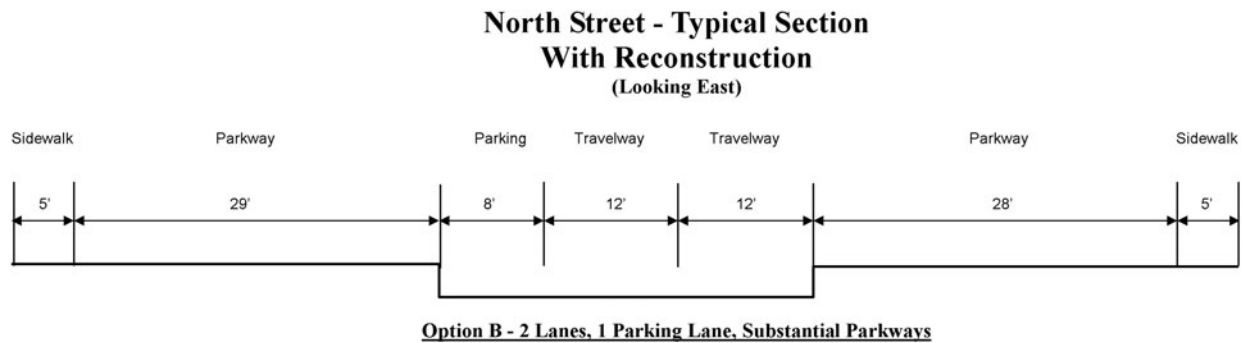


Figure 32. North Street Reconstruction Option B Cross Section (Source: Stuart I. Brown Associates, LaBella Associates)

North Street Reconstruction Option B-1 – Addition of Dedicated Bike Lanes

Option B-1 is similar to option B in layout as shown in Figure 33. However two 5 ft. dedicated bike lanes are added to the paved area. This option slightly reduces the Parkway size, but provides a multi-modal right of way.

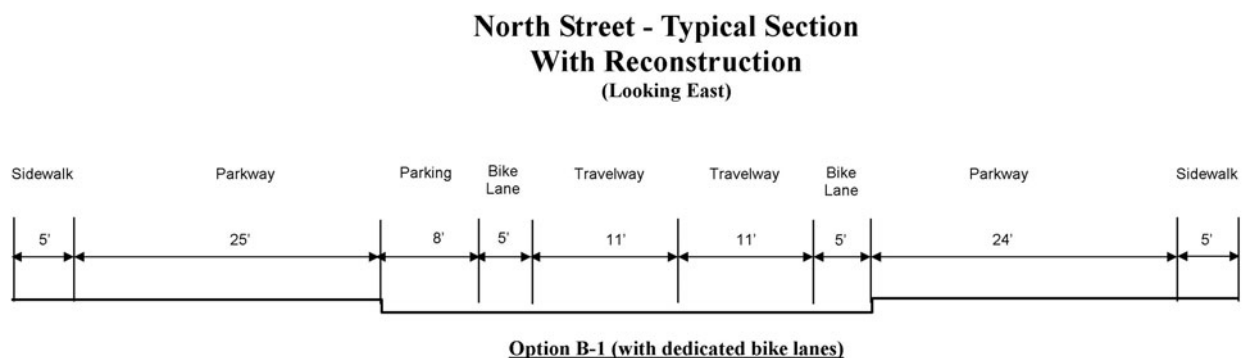
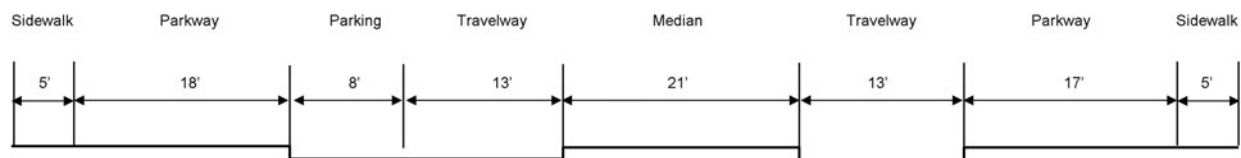


Figure 33. North Street Reconstruction Option B-1 Cross Section (Source: Stuart I. Brown Associates, LaBella Associates)

North Street Reconstruction Option C – Two Lanes, One Parking Lane, Median

Option C provides the same circulation and parking options as Option B (2 travel lanes and one parking lane), but it reconfigures how the green space is distributed. Option C includes a landscaped median (divided into sections) in the center of the right of way. This option would dramatically change the appearance of the street, provide traffic calming and narrow one way paved areas on both sides of the road. A disadvantage to this option is that residents would need to go around the medians if their house was on the opposite side of the road they are traveling on. Figure 34 exhibits the cross section layout for Option C.

**North Street - Typical Section
With Reconstruction
(Looking East)**



Option C - 2 lanes, 1 Parking Lane, Median

Figure 34. North Street Reconstruction Option C Cross Section (Source: Stuart I. Brown Associates, LaBella Associates)

4

Strategies and Recommendations

Recommendations to improve the circulation, parking, safety and aesthetics of the corridor were developed by analyzing the issues, opportunities and potential alternatives within the study area. The recommendations are divided into the following sections:

- Intersection recommendations for the Court/North/Main Streets and Main/Park Streets intersection.
- Roadway alternatives for North Street.
- Multi-modal recommendations for pedestrian, bicycle and bus transportation.
- Parking recommendations.
- Urban design and aesthetic recommendations and strategies.
- Other recommendations.
- Follow on recommendations.

Intersection Recommendations

The two intersections with the lowest levels of service were the Court/North/Main Streets intersection and the Park/Main Streets intersection. The recommended alternatives for each intersection that follows will provide long term solutions to improve both the safety and circulation at the intersections and within the corridor as well.

Court Street/North Street/Main Street Intersection

The preferred recommended alternative for the Court/North/Main Streets intersection is the installation of traffic signals at each of the approaches. The traffic signal alternative improves the projected level of service for the eastbound and westbound approaches from an F to a B and A respectively. Although the levels of service for the north and south bound traffic do decline slightly (from an A to a B) under this scenario, a B level of service still provides more than an adequate level of circulation.

The plan view of the alternative is shown in Figure 35. Signal heads and poles would need to be placed on every corner. In order to complement the safety and aesthetics of the intersection, bump outs or curb extensions are recommended on the northeast and northwest corners. The curb extensions would improve the sight triangles at the intersection by providing additional room for vehicles to view oncoming traffic and by eliminating parking spaces that obstruct sight visibility. Bump outs will also decrease the distance for pedestrians to cross the street while providing greater visibility of oncoming traffic.

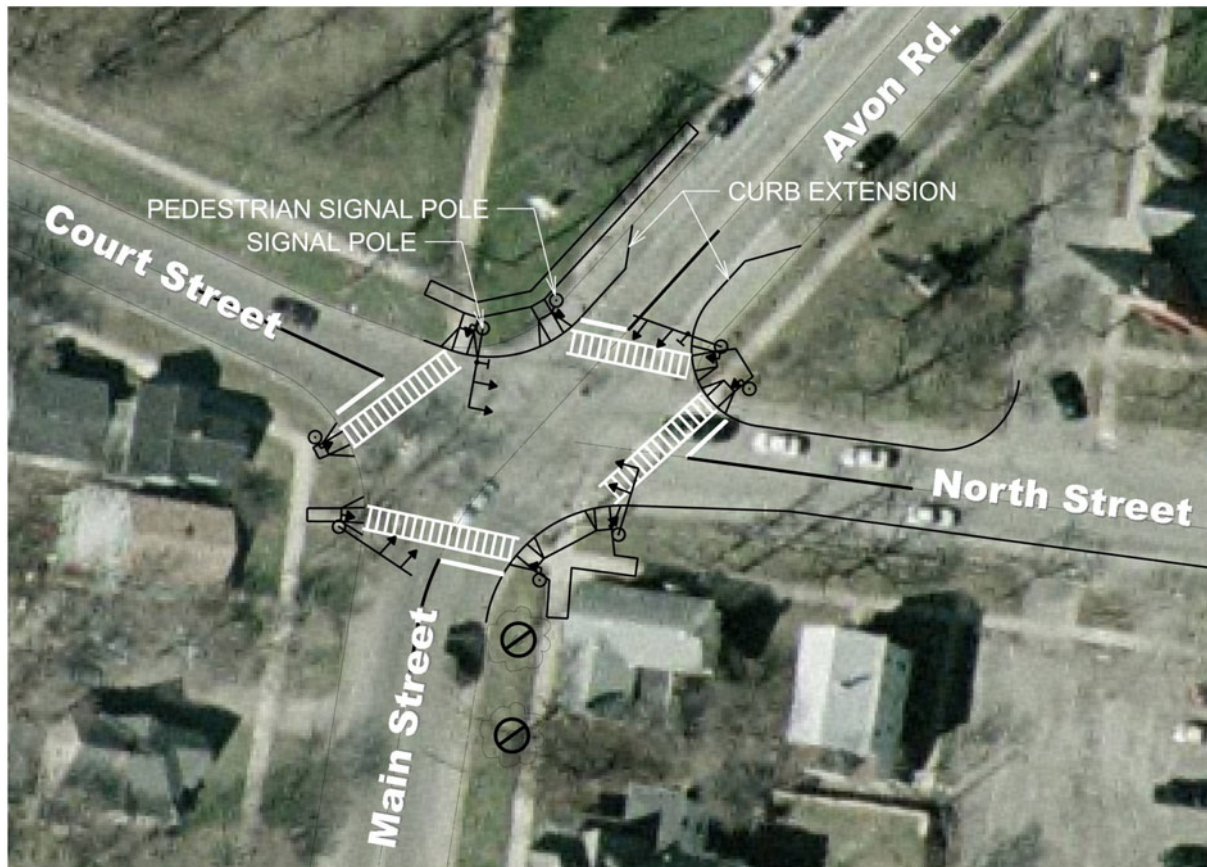


Figure 35. Plan view of Preferred Court/North/Main Streets intersection (Source: LaBella Associates)

As the intersection includes several historic properties, a pole with a decorative base and a decorative light are also recommended. An example of a decorative signal pole is shown in Figure 36.



Figure 36. Example of a decorative signal pole (Source: Stuart I. Brown Associates)

One of the concerns of the steering committee was the impact of the traffic signal on the view of the courthouse. A simulation (Figure 37), however, demonstrates that the signal poles, arms and heads will have a minimal impact on the view of the courthouse. The arms, poles and heads will need to be dark green or black so they will not be more prominent than the courthouse.



Figure 37. Simulation of Court/North/Main Streets Intersection with traffic signal poles (Source: LaBella Associates)

Park Street/Main Street Intersection

The only feasible alternative for the Park Street/Main Street Intersection is to prohibit left hand turns during the 4 p.m. to 6 p.m. hours. This option would improve the level of service for the intersection to a D for the right hand turns southbound to Main Street.

A sign posting the restrictions will need to be placed on the east side of Main Street. If for some reason the option does not work the sign can simply be removed.

Recommended Roadway Alternatives for North Street

Several roadway enhancement alternatives are possible for North Street. A no reconstruction option and several full reconstruction options are feasible.

North Street – No Major Reconstruction

One option is a “no reconstruction” alternative to expand the parkway on the south side of the street equal to the distance of the parking lane (8’) as illustrated in Figure 31 in the last chapter. This option narrows the paved area width and increases the green space on the street without investing significant dollars and time in a full reconstruction of the roadway and drainage system. The disadvantage is that the option does not include curbing, which would improve the overall appearance of the street and insure that cars do not drive on the parkway.

This option would also require the completion of additional work on sections of the north side of the street. The width of the parkway on the north side of the street varies considerably. In sections where the parkway is less than 34 feet, the parkway should be extended to 34 feet.

In addition, many of the driveway aprons on the south side of the street are in poor condition and should be replaced regardless of which option is ultimately selected. Driveway aprons on the north side of the street are generally in good condition, but should be inspected for potential replacement.

North Street – Full Reconstruction

If funding was available through grants or other financing resources, a full reconstruction of North Street is recommended. Reconstruction would improve the appearance of the roadway and upgrade the drainage system as well.

The three feasible reconstruction options discussed in the last chapter for North Street are as follows (see figures 32-34):

1. Option B – two 12’ travel lanes, an 8’ parking lane, two large parkways (28’-29’) and two 5’ sidewalks.
2. Option B1 – two 11’ travel lanes, two 5’ dedicated bike lanes, an 8’ parking lane, two large parkways (24’-25’) and two 5’ sidewalks.
3. Option C – two 13’ travel lanes, an 8’ parking lane, a 21’ median, two average parkways (17’- 18’) and two 5’ sidewalks.

During the community workshop, and in consultation with the steering committee, a “hybrid” alternative was suggested for North Street. The hybrid would be a combination of Option B and Option C. The majority of the roadway would generally be designed to Option B’s dimensions, with the exception that the travel lanes would be slightly wider (14’) to accommodate bicycles (without a “dedicated” bike lane).

A short section of the “hybrid” alternative, approximately mid block, would include a small median island of 10’. The inclusion of a median would necessitate a narrowing of the parkway in this small section, so that the roadway’s outside curb line would need to deflect inward. The change in geometry would encourage traffic calming as cars would adjust their speed to maneuver the curves. The cross section and plan views of the hybrid roadway are described in figures 38 and 39 and Figure 40 is a simulation of the hybrid option.

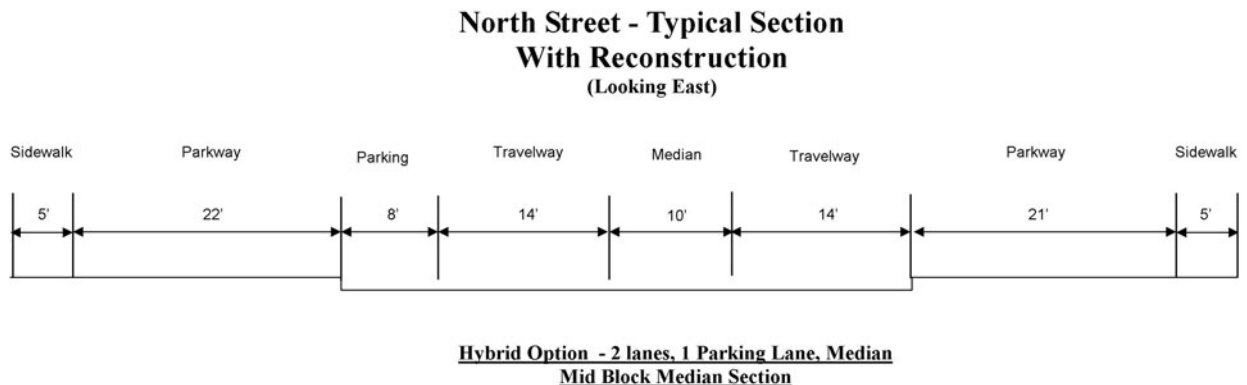
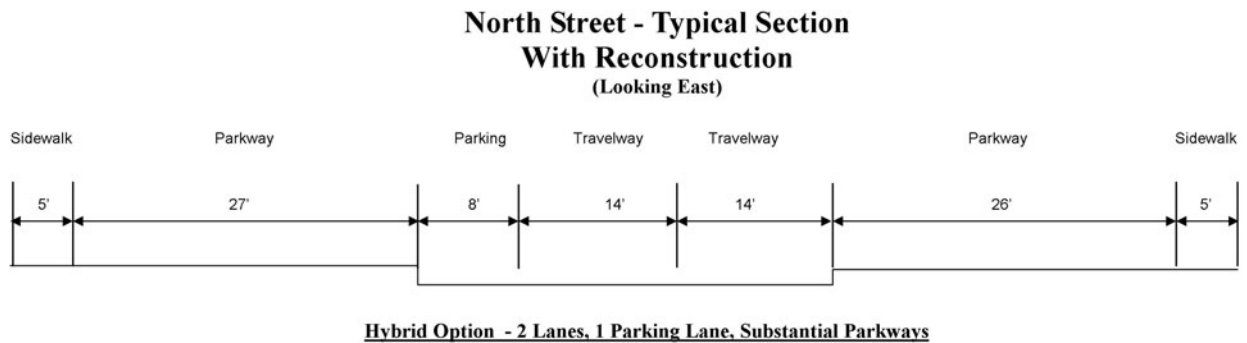


Figure 38. Hybrid Cross Sections for North Street (Sources: Stuart I. Brown Associates, LaBella Associates)



Figure 39. Plan View of North Street parkway and median (Sources: Stuart I. Brown Associates, LaBella Associates)



Figure 40. Simulations of North Street Roadway hybrid option (Sources: Stuart I. Brown Associates, LaBella Associates)

Multi-Modal Recommendations

Multi-modal recommendations are divided into pedestrian, bicycle and transit enhancements. Many of these recommendations are integral to or complement the previous recommendations for intersections and roadways.

Pedestrian Recommendations

Geneseo is already a pedestrian friendly community. Recent improvements to the pedestrian transportation network as a result of the Pedestrian Committee report have further enhanced the pedestrian amenities in Geneseo. The following recommendations, therefore, are intended as an “update” to the pedestrian committee report.

1. *Install bump outs or bulb outs on both sides of the street at every crosswalk on Main Street.* The exceptions are the crosswalks at Center and Main Streets, where bump outs can only be installed on the east side of the street to allow for large vehicles to maneuver the bear fountain monument. An example of potential bump outs is shown in Figure 41.
2. *Erect pedestrian crossing signs in all crosswalks and install pedestrian warning signs prior to pedestrian areas on Main Street and Court Street.* Moveable pedestrian warning signs are placed in the crosswalk and alert drivers to slow down and to be cautious at pedestrian crossings. If placing one at each crosswalk is visually unappealing or if too many will cause drivers to ignore them, the signs should be placed at the first crosswalk as one comes into the community and at the crosswalks with the highest pedestrian counts such as the Center Street/Main Streets intersection. The suggested locations of the signs are indicated in Figures 41 and 42.
3. *Install sidewalks and street trees on Lima Road and Avon Road.* There are gaps in the pedestrian sidewalk network on Lima Road between Kimberly Drive and Country Club Road on the west side and four lots prior to Volunteer Road to Country Club on the east side of the road. Sidewalks should be installed in a phased approach starting with sidewalk installation on both sides of Lima Road up to Volunteer Road for Phase I and to install sidewalks between Volunteer and Country Club under Phase II sometime in the future as the area continues to develop. All of the Phase II portion of the sidewalk program would be located in the Town of Geneseo. As part of any sidewalk installation project, street trees should be planted in the parkway area if there are not trees there already.

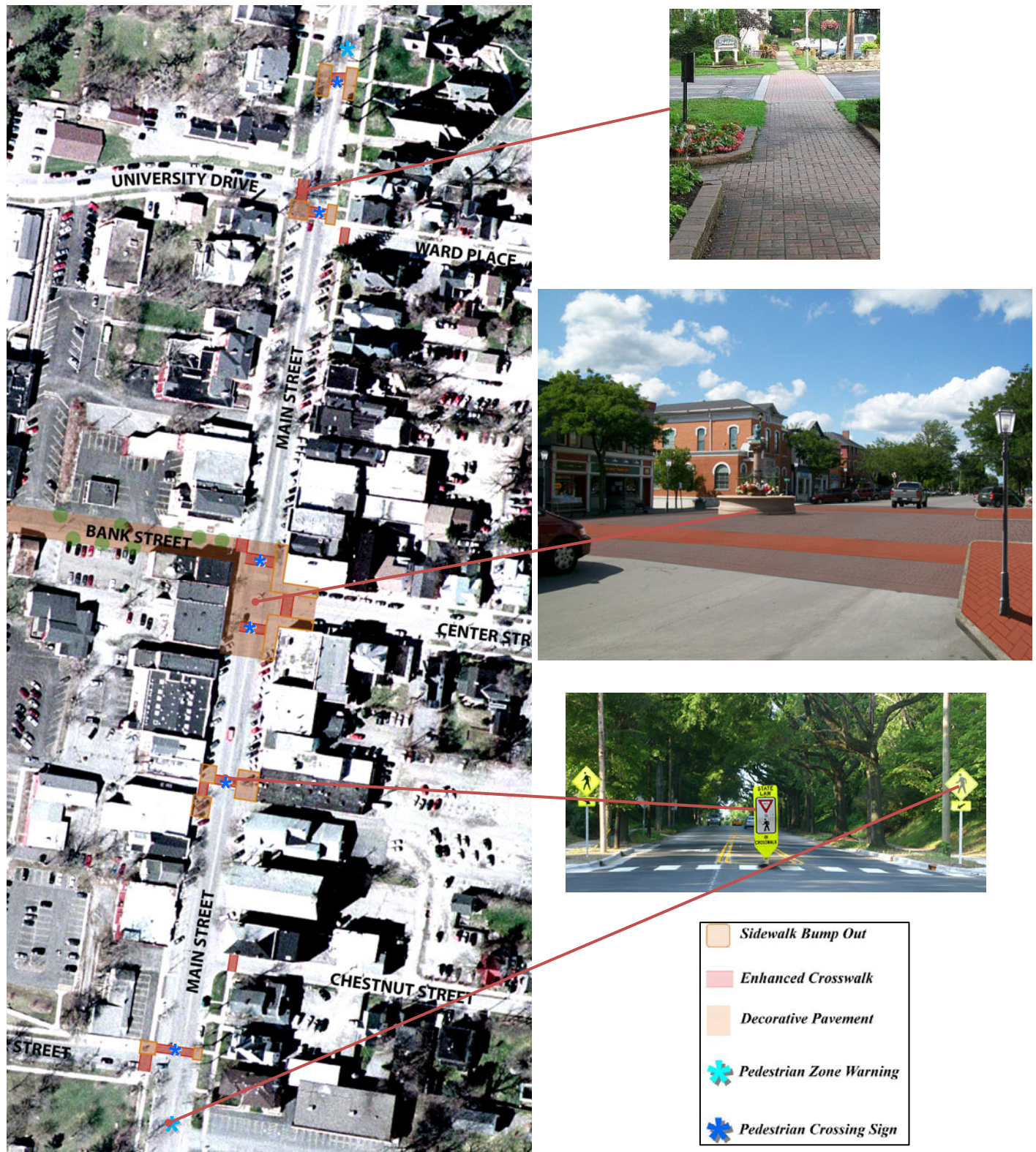


Figure 41. Locations of bump outs, enhanced crosswalks, and pedestrian signs (Sources: Stuart I. Brown Associates, LaBella Associates)

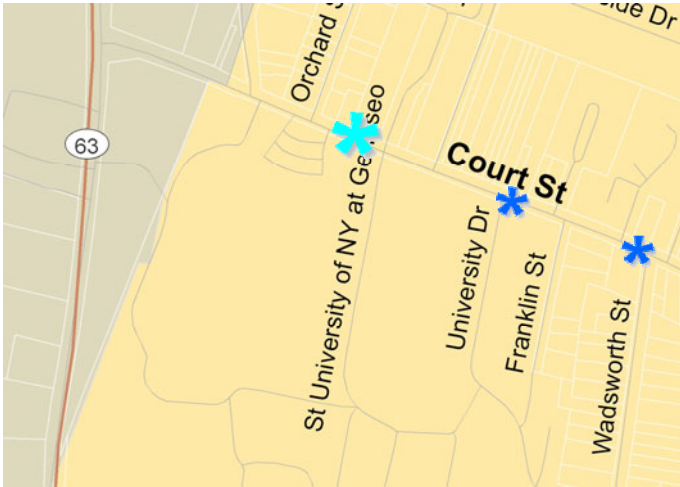


Figure 42. Crosswalk locations on Court Street (Sources: Stuart I. Brown Associates, LaBella Associates)

Transit and Bicycle Recommendations

Another important part of Geneseo's multi-modal transportation system is the transit system operated by the Livingston Area Transit System (LATS). The bus system has experienced significant ridership increases during the last five years.

The main route of the LATS Geneseo bus route passes through the study area on sections of North Street, Center Street and Main Street. However, there are currently no bus shelters within the study area with the exception of one on Court Street. The ideal place to install an additional bus shelter is on the north side of Center Street near Main Street (Figure 43) because the location would be centrally located near downtown, it is close to the university and is the intersection with the highest pedestrian counts.

Bike racks should also be placed in the same area because of its high pedestrian activity and its location near downtown and the university. As there is only one bike rack in downtown Geneseo and as there is a potential demand for bike parking, multiple rack locations are suggested in Figure 43.

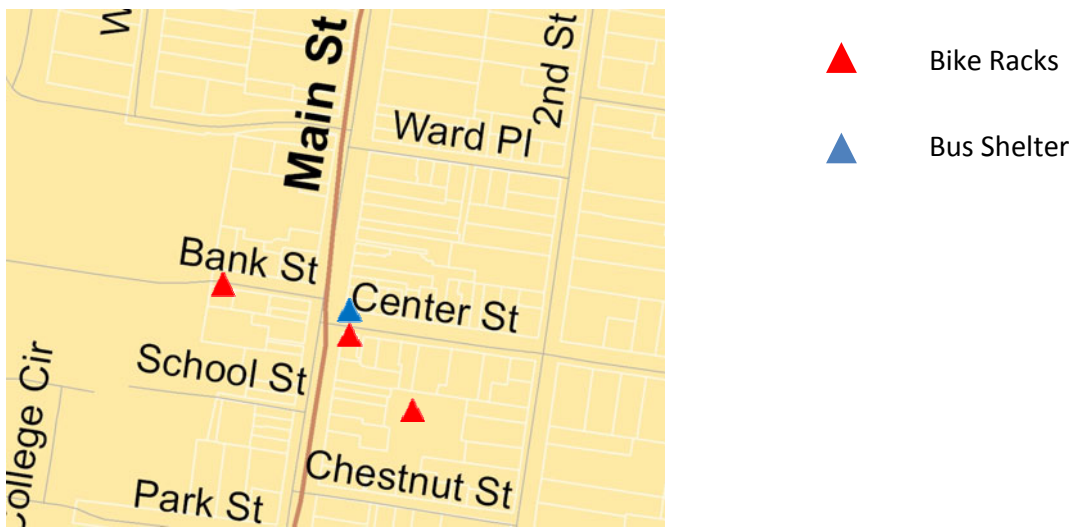


Figure 43. Locations for bus shelters and bike racks (Sources: Stuart I. Brown Associates, LaBella Associates)

Parking Recommendations

The existing conditions section of the report, as well as community survey responses, revealed that there currently are no major parking issues in the study area. However, the number of spaces that were vacant on average is roughly equal to the number of private parking spaces in the downtown district.

Consequently, any conversions of private parking lots to other uses will have an impact on the overall supply of downtown parking. In addition, if buildings are developed on existing private parking lots, then the demand for additional parking spaces will increase.

Therefore the Village should closely monitor any parking lot redevelopment activity. Using the current counts and demand factors in this report, the planning board should take parking impacts into consideration during site plan reviews. In addition, the Village should also keep an eye on sales of private properties on the west side of Main Street and determine if there are opportunities for acquisition and conversion of lots to public use.

Urban Design and Aesthetic Recommendations

As stated in the existing conditions section of the report, Geneseo is blessed with a traditional, well designed street system with model urban design characteristics including the visual termination of the Courthouse at the end of Main Street, ideally proportioned Main Street building heights that create a sense of enclosure and historic, human scale buildings. The following urban design recommendations, therefore, are intended to enhance or complement the established urban design aesthetic in the study area.

Several urban design recommendations have been mentioned previously in this section. The reconstruction of North Street, including the enlargement of the parkways and the potential inclusion of a median, would completely change the visual experience of North Street for both

pedestrians and drivers. The roadway would feel more residential or “park like” and for residents the paved roadway would no longer dominate their view.

Several enhancements are recommended for Main Street. The bump-outs and enhanced crosswalks mentioned previously would not only provide safer crossings, but they would also augment the appearance of Main Street if constructed with appropriate materials such as brick or concrete pavers (Figure 44). While the installation of brick or concrete pavers in crosswalks is typically not recommended for high volume roads, the treatment may work on Main Street because traffic volumes and truck traffic are relatively low.



Figure 44. Examples of decorative crosswalks and decorative, pedestrian scale lighting in Lewiston, New York (Source: Stuart I. Brown Associates)

Enhanced pavement treatments could also be employed around the bear fountain. The significant pedestrian activity at this location could be distinguished by installing decorative pavement between the two crosswalks north and south of Center Street on Main Street. This would create a zone where pedestrians would feel comfortable crossing the street and motorists would recognize that they need to use caution.

In order to enhance the area even more, decorative lighting could be installed at each corner of the intersection and the bear fountain could be illuminated with a spotlight or floodlight. The remainder of Main Street could also benefit from pedestrian scale decorative lighting. If funds are not available to install decorative lights along the entire length of Main Street, the installation of such lighting at strategic intersections and gateways is recommended.

Several gateways could also be enhanced with additional landscaping and signage. The gateway to downtown at Main Street and 20A is currently well designed with the exception of the gas station property to the northeast. The parkway in front of the gas station, if within the public right of way, should be enlarged and trees and low level landscaping should be planted to buffer the view of the station. The gateways at Route 63 and 20A and Volunteer and Lima Roads would also benefit from additional landscaping and signage. Gateway improvements at Volunteer and Lima Roads

could be coordinated or designed to calm traffic. Figure 45 shows examples of gateways in other communities.

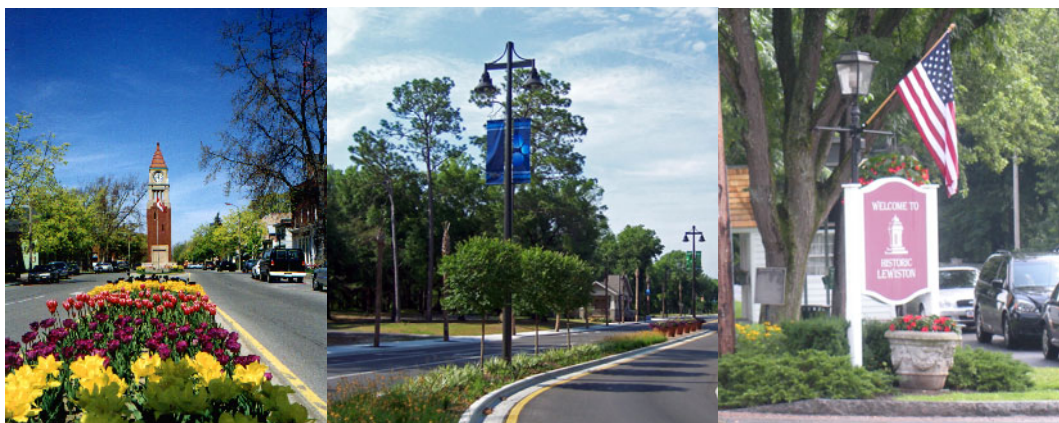


Figure 45. Examples of gateways (Source: Niagara on the Lake, Sara Summerfield, Stuart I. Brown Associates)

Finally, the zoning regulations should be amended to affirmatively disallow front yard parking on Main Street. Currently, there is an excess supply of parking downtown and all the destinations downtown are within walking distance of an existing parking lot, so there is no need for additional parking.

Other Recommendations

There are several other recommendations that do not fit into any of the categories above:

1. *Speed Reduction on Lima Road* – the speed on Lima Road between Country Club Road and Volunteer Road should be reduced to 45 miles per hour (mph) from 55 mph so there is a better transition to the 30 mph Village speed limit south of Volunteer Road.
2. *Increased Lighting Levels on Court Street and the Court/North/Main Streets intersection* – The participants in the community workshop and the survey indicated that the lighting levels on Court Street and the Court/North/Main Streets intersection are inadequate. Additional lighting, therefore, should be erected in those areas, especially near pedestrian crosswalks.
3. *Consider a westbound right turn lane on 20A at Main Street*- Based on a preliminary level of service analysis, adding a westbound turn lane on 20A at Main Street would improve the level of service for the westbound approach. Under current conditions the level of service increases from a D to C and from an E to a C under future 2028 conditions.
4. *Add detectable warnings on sidewalk ramps (Figure 46)* – While Geneseo has sidewalk ramps at all its intersections, the ramps do not have detectable warning systems to aid pedestrians in crossing.



Figure 46. Example of a detectable warning system on a sidewalk ramp (Source: Armor Tile Tactile Systems)

Follow on Recommendations

Two follow on activities that are recommended to better understand and implement some of the recommendations in the report are:

1. *Surveying*
 - a. The intersection of Court/North/Main Streets should be surveyed prior to any physical improvements. A plan level survey would aid in the proper placement of bump outs, crosswalks, lighting and even the signal poles to maximize visibility at the intersection. A topographical survey would also be beneficial to determine if any minor adjustments could be made to Court Street to reduce the slope of the street at the intersection.
 - b. North Street will need a full construction and topographic survey prior to any reconstruction.
2. *Origin Destination Study for Court Street:* An origin destination study employs personal interviews with a sample number of drivers to determine where they are going, where they came from and why they are using certain routes to estimate the overall population's driving habits. Such studies are important to determine travel patterns and the potential need for alternate routes. Between 2005 and 2008 traffic counts along Court Street have increased by 42 percent. It appears that drivers are using Court Street as an alternate to the 20A bypass but that cannot be affirmatively determined without an origin destination study.

5

Implementation Plan

The Implementation Plan table on the following page is designed to assist the Village of Geneseo with the execution of the programs and projects recommended in the plan. It is advisory rather than prescriptive and it is flexible based on the preferences of the Village.

However, the strategy of the table is to maintain momentum of the program to improve circulation, parking, safety and aesthetics along the Route 39/ North Street / Court Street Corridor over time. Projects that cost little or no money (with the exception of staff time) are suggested to be started within the first two years of the completion of the plan. This will maintain the plan's momentum while the Village is working on the larger projects that will require grant funding and coordination with the Village's Capital Improvement Plan.

Generally, the recommended projects are aligned and tailored to existing grant programs. Some of the larger projects may require multiple grant sources or need to be phased to make them feasible. In addition, new grant programs may be available in the future to fund the proposed projects.

Cost estimates are based on current bid prices for projects awarded recently. However, construction prices are subject to change.

Geneseo Circulation, Parking, Safety and Aesthetics Study Implementation Plan

	2010				2011				2012				2013				2014				Cost		Grants/Funding	
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Estimate			
Intersection & Roadway Improvements																								
Court/North/Main Traffic Signals, Bumpouts, Lighting																					\$ 200,000	MI, TIP		
Install no left turn sign @ Park & Main Street																					\$ 200	Local		
North Street No Major Reconstruction Option																					\$ 250,000	MI, Local		
North Street Hybrid Reconstruction Option																					\$ 2,000,000	TEP,TIP		
Multi-Modal Recommendations																								
Bump outs/Enhanced Crossings/Decorative Lighting																					\$ 500,000	TEP, TIP		
Decorative Lighting - remainder of Main Street																					\$ 500,000	TEP, TIP		
Erect additional pedestrian crossing signs																					\$ 1,500	Local		
Install sidewalks/trees on Lima Road to Volunteer																					\$ 500,000	TIP, TEP, SRTS		
Install sidewalks/trees on Lima Road north of Volunteer																					\$ 600,000	TIP, TEP, SRTS		
Install sidewalk on Avon Road																					\$ 50,000	SRTS, Local		
Install bus shelter																					\$ 10,000	RGRTA/LATS		
Install bike racks																					\$ 1,000	Local, TEP		
Design Improvements																								
Gateway Improvements																								
20 A/Main																					\$ 100,000	Local, MI, NYSOPRHP (Park Side)		
Lima/Volunteer																					\$ 50,000	Local, TEP, MI		
63/Court																					\$ 50,000	Local, TEP, MI		
Disallow front yard parking downtown																					Staff Time			
Other																								
Lima Road Speed Reduction																					Staff Time	Local		
Increased Lighting Levels Court Street																					\$50,000	Local		

Grants :

MI: Member Item, Contact legislator for information/application (Continuous - contact legislative office)

TEP: New York State Department of Transportation, Transportation Enhancements Program; www.nysdot.gov/programs/tep (March-June)

SRTS: New York State Department of Transportation Safe Routes to School Program; www.nysdot.gov/re/srts (Jan - March)

TIP: Genesee Transportation Council/New York State Department of Transportation; <http://www.gtcmpr.org/Docs/TIP.htm> (Summer)

NYSOPRHP: New York State Office of Parks, Recreation and Historic Preservation; www.nysparks.com (July-September)

(Typical grant announcement-submission periods in parentheses; subject to change)

Note: TEP, SRTS funding is dependent on Congress passing new transportation bill.