Genesee County Central Corridor Plan

A Guide for Future Land Use and Transportation Decisions in the Batavia Community

EXECUTIVE SUMMARY

Overview/Project Purpose

The City and Town of Batavia are geographically located at the center of Genesee County and serve as the regional hub for commercial, industrial, and service enterprises for not only the county, but also the surrounding region. The recent construction of big-box style retailers and development of several large-scale industrial, agri-business, and high-tech business parks have and will likely bring jobs and new economic development opportunities to the area. Four major state highways (State Routes 5, 33, 63, and 98) carry traffic through the Town of Batavia and converge within the center of the City. Additionally, the NYS Thruway is located directly north of the City with direct access to Batavia from exit 48 via Route 98.

With the growth and development that has occurred and will likely continue to occur in the greater Batavia area, traffic volumes have increased, causing some circulation issues and concerns from residents in specific areas.



Five major roadways carry traffic to Batavia from various points in the region and State.

With assistance from the Genesee Transportation Council (GTC) and the Federal Highway Administration (FHWA), the Town and City initiated a collaborative planning process to prepare a plan for transportation improvements, including existing and proposed roadways. The plan provides an analysis of current zoning and land use plans and their implications on projected future development of the area. Specific recommendations and strategies for transportation and land use improvements are provided in the plan to address any current and potential transportation and land use issues.

Study Area

The Genesee County Corridor Study encompasses the entire City of Batavia and significant portions of the Town of Batavia as shown in the graphic at right. This central corridor includes the major roadways outlined above, as well as other existing and proposed federal aid eligible roadway systems. Collectively, the roadways in the corridor provide primary travel routes for local residents and employees, as well as commercial truck traffic and visitors.



Project Components

The project consists of the following components:

- Examination of the existing conditions, including the physical and natural features, land use and zoning, and planned development in the greater Batavia community
- Identification of opportunities available and constraints that may impact transportation and land use in the future
- Analysis of the existing transportation system, including condition and functionality
- Development of a future traffic model based on existing zoning, planned development, and the transportation system
- Analysis of various transportation and circulation scenarios based on recommendations from the Town and City Comprehensive Plans, steering committee guidance, and community input
- General and strategic recommendations to improve, enhance, or maintain efficient and safe circulation within the study area, including physical improvements, policies, and zoning recommendations
- An implementation guide for future follow-on activities, phasing/prioritization of improvements, and opportunities for funding

Existing and Future Conditions

The City of Batavia, which is largely built-out, has little land available for significant development. Although more development opportunities are available in the Town, future traffic circulation and volumes would likely impact the primary arterials in the City. In the Town, approximately 400 acres of land is zoned as a Planned Business District on Route 98 north of the Thruway and the area surrounding Veterans Memorial Drive is also available for additional development based on current zoning regulations.



The results of the build-out analysis, shown at left, show the commercial development potential of various areas in the Town. Yellow indicates more than 500,000 square feet could be developed per parcel.

A build-out analysis was provided to determine the extent of the development that could occur in these areas between 2010 and 2035. The analysis shows the full future build-out of developable lands (vacant & agricultural) in the study area based on current zoning and subdivisions regulations. This was a conservative estimate and is dependent on various outside factors, including market conditions and whether the zoning regulations are maintained or revised. This information was used to estimate future infrastructure demands as well as testing the practicality of existing zoning and development regulations.



Current conditions found along Route 98 - predominantly farmland and some commercial businesses on West Saile Dr.

Transportation Scenarios

Based on the Town of Batavia's Comprehensive Plan, several roadways were proposed to provide efficient circulation through the area and improve connections. Different combinations of the various roadways, along with the results of the potential future build-out, were analyzed by the traffic model to determine which would offer the greatest benefit to the community.

The combination of proposed roadways connecting Veterans Memorial Drive to Route 63 and continuing on to Route 5 near Town Hall (segments 4 & 5) would have the greatest benefit to the overall community. Given the development that has occurred in this area and the potential for future development, these roadways would provide an alternative route, reduce traffic volumes in the area, and maintain existing service levels.

With the potential development on Route 98, the preferred option for preventing congestion and maintaining adequate service levels in the City would be a combination of sustainable land development and physical roadway improvements.





Segments 4, 5 & 10 are the preferred roadways based on the results of the traffic model. The numbers correspond to the proposed roadways outlined in the study (Section 5).

Recommendations and Conclusion

While the preferred roadway scenario described above provides a framework for prioritizing larger, long-term capital improvements, smaller, more strategic land use and transportation improvement options may provide greater benefits in the short and mid-term.

With the corridor study examining a large geographic area, encompassing several important roadways in the town and city, general recommendations for the corridor were categorized into six topic areas. Recommendations for specific locations or intersections are also included within each topic area (Route 98 example shown at right).

- Land Use and Development
- Vehicular Circulation
- Pedestrian / Bicycle / Transit Systems
- Streetscape
- Site Design
- Safety

Roundabouts should be considered at the intersections of Route 98 at West Saile Drive (pictured below) and Call Parkway (Gateway II Park) as well as the Thruway exit to maintain effective service and provide for efficient traffic flow should full build-out occur along Route 98.





In addition to the roadway scenarios and recommendations, two focus areas were selected and reviewed based on their potential future development and overall impact to the corridor. General land uses were indicated and potential alignments of future roadways were illustrated. The development of these roads and the surrounding development would be dependent on the current zoning and economic and market conditions.

The Route 98 (left) and Veterans Memorial Drive (right) focus areas showing conceptual land uses and roadway alignments.



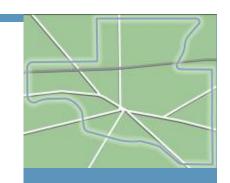
Through the planning process, various opportunities and strategies were identified to enhance mobility in the region. Although some of the more significant recommendations hinge upon long-term build-out, a proactive approach to minimize future traffic impacts will help ensure safe and efficient traffic operations in the future. Other opportunities for collaboration and partnerships should be pursued as development moves forward in the area and sections of the plan are implemented. This cooperative effort can be critical for specific funding opportunities as well as a cost-savings measure.

Moving forward, several follow-on activities were identified for the City and Town to pursue or strive towards as resources allow or opportunities arise.

- Prepare a funding strategy plan to fund future infrastructure improvements
- Revise zoning for the City and Town where necessary to implement some of the strategic recommendations in the plan
- Develop a Bike & Pedestrian Master Plan to identify multi-modal initiatives and improvements
- Develop sub-area access management plans as development increases along Route 98
- Study and encourage the installation of a roundabout at the Thruway exit at Park Road/Route 98.

Funding

The Plan also provides a brief review of possible funding strategies that could be used to implement future infrastructure improvements as development occurs in the study area. The report briefly describes eight possible funding strategies ranging from Transportation Development Districts and transportation mitigation fees to sources of grant funding. A case study of three of these strategies is provided that documents potential costs to developers and the Town is also included.



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Prepared for: Town of Batavia City of Batavia Genesee County

Final Report September 2011





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Financial assistance for the preparation of this report was provided in part by the Federal Highway Administration (FHWA). The Town and City of Batavia are solely responsible for its content and the views and opinions expressed herein do not necessarily reflect the official views or policy of the U.S. Department of Transportation (USDOT).

The Genesee Transportation Council assures that no person shall, on the grounds of race, color, national origin, disability, age, gender, or income status, be excluded from participation in, be denied the benefits of, or be otherwise subject to discrimination under any program or activity. GTC further assures every effort will be made to ensure nondiscrimination in all of its program activities, whether those programs and activities are federally funded or not.

All Images courtesy Clark Patterson Lee, unless otherwise noted.

STUDY OVERVIEW

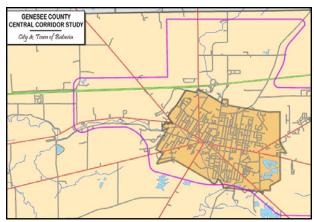
Background

Batavia has always been a primary focus for Genesee County's civic functions and economic development efforts. The community's proximity to Buffalo and Rochester, its abundance of affordable land and its transportation network have increased development demand considerably over the last decade. The community is home to Genesee Community College, United Memorial Medical Center, Batavia Downs and Casino, which are both employers and destinations.

Once considered an outlying suburb of Buffalo and Rochester, Batavia's recent development and redevelopment successes have transformed the community into a major commercial, industrial and service center for the county and surrounding region.

With the recent proliferation of big-box retail establishments (e.g. Wal-Mart, Target, Lowes and Home Depot), many residents in the region come to Batavia to meet their shopping and service needs. There is less of a need to travel to regional commercial centers located outside of Rochester or Buffalo. That development pressure is expected to continue into the future, especially as residents' needs for conveniently located goods and services increase.

Additionally, there are several large-scale industrial, agri-business and high-tech business development projects in various stages of development that will continue to bring jobs and additional economic development opportunities to the City and Town of Batavia.



Study area boundary.

Batavia's development has been bolstered by its transportation network, which includes the New York State Thruway, four state routes and several critical county and local roads. The transportation network accommodates significant volumes of traffic to and through the area, including freight trucking.

Purpose of the Project

Based on current and planned conditions, the Town and City of Batavia initiated a collaborative planning process to explore transportation and land use conditions and needs. The study area, which is depicted on the graphic above, targets the area where the central corridors converge in the city, the Exit 48 thruway interchange and areas of the town where the most intense development is anticipated.

The planning process and report were developed to examine current and planned conditions, identify opportunities and constraints, and develop recommendations and strategies for future transportation and land use improvements that will encourage sustainable development and protect Batavia's quality of life.





Project Goals

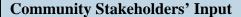
Several goals emerged early in the process, which guided the plan's development:

- Identify a shared vision for the entire study area;
- Build consensus among diverse stakeholders;
- Expand multi-modal transportation opportunities throughout the study area;
- Encourage aging in place land use and transportation design strategies;
- Enhance connectivity throughout the area;
- Employ best practices in land use and transportation system design to ensure long-term economic viability;
- Capitalize on existing infrastructure and preserve active farmland and critical open space resources.

Public Input

The planning process was guided by community input gathered from several sources, including advisory committee meetings, public informational meetings, outreach to specific stakeholders and comments received by the public throughout the course of the project.

With public input as the basis, valuable information about existing conditions was discovered. This allowed the project team to develop recommendations that could be addressed broadly throughout the study area and targeted specifically at locations that warranted particular attention.



What has changed in the corridor?

- Increased number of industrial parks available that are shovel-ready for future development
- Expansion of GCC; Increased traffic near GCC
- Big-box retail stores on Veterans Memorial Drive
- Regional draw and increase of traffic to the Batavia Downs Racetrack and casino, especially in the last five years
- Dramatic changes along Park Road (Batavia Downs increase in traffic, construction of Target and Lowes)
- Additional traffic on 98 from side roads

What places do you avoid driving?

- The intersection of Route 98 and Saile Drive, especially in the morning
- Main Street (within City) due to high volumes of traffic
- Veterans Memorial Drive and Route 63 intersection, especially on Saturday mornings

Where are there concerns about pedestrians' and/or motorists' safety?

- Pedestrian safety on Bank Street and Hawley Drive from City Line to GCC
- Pedestrians on Batavia-Stafford Townline Road (between GCC and Route 33)
- Pedestrian crossing at Batavia Downs between parking lot and facility
- Pedestrian safety Batavia High School especially at drop off/pick up times

What are the community's development preferences?

- Encourage mixed use development along Route 63
- Expanded residential options in the city and the town
- Aging-in-place development practice
- Expanded senior living opportunities
- Maintain rural and agricultural areas of the community



PREVIOUS PLANS AND STUDIES

Communities that proactively study and plan for the future make better decisions and are more successful securing grants and other types of funding to achieve desired outcomes.

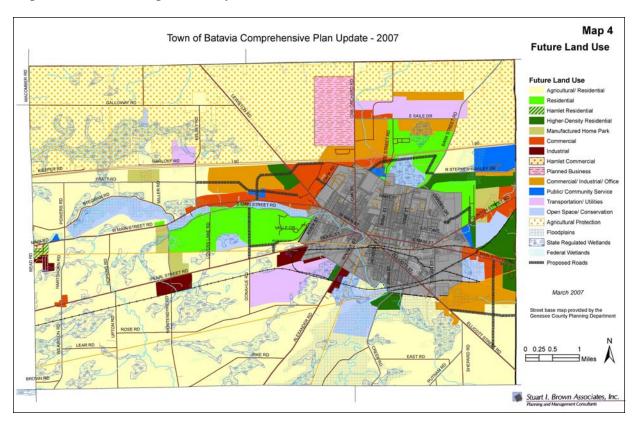
Previously completed comprehensive plans, feasibility studies, transportation studies, market analyses, and other planning documents provide critical guidance in identifying development opportunities, formulating local government policies and prioritizing future capital investments for the central corridor study area.

Batavia has engaged in several important planning efforts over the last decade. The documents provide important insight about existing conditions, development trends and preservation priorities, all of which will impact Batavia's transportation system, community development decisions and quality of life in the years to come.

The following is a brief summary of the reports and studies prepared to date.

Town of Batavia Comprehensive Plan Update (March 2007)

The Town of Batavia, like many other municipalities, is constantly changing and developing over time. This was especially evident during the development of the Town's 2007 Comprehensive Plan, an update from their previous plan in 1997. Expanded development along Veterans Memorial Drive and industrial parks have led to greater economic and development opportunities in the Town. The Town acknowledged these developments and, while encouraging their continued development, sought to protect the rural and agricultural character that makes up nearly half of the Town.





As part of the Comprehensive Plan, the future land use map provides an overview of the general areas where the community would prefer to see various types of development occur. (*See graphic on following page*) While the majority of the non-agricultural land uses fall within the Smart Growth Development, some do fall outside of the boundary. The uses include some of the larger development areas, such as the Agri-Business Park, and potential parks such as the planned business district along Route 98.

Overall, the future land use map depicts commercial areas off of Routes 5, 33 and 63 adjoining the City, with a greater concentration around Veteran's Memorial Drive. Higher density residential uses are predominantly in the vicinity of Genesee Community College to the east with commercial/industrial/office uses located near the industrial parks and between Route 63 and 5 to the west.

Because of the increased development northwest of the City, several roadway expansions were proposed in the plan, including connections between Veterans Memorial Drive, Pratt Road and South Main Street Road.

Town of Batavia Agricultural and Farmland Protection Plan (2008 Draft)

A direct result of the Town's 2007 Comprehensive Plan, the Agricultural and Farmland Protection Plan consisted of a more detailed plan for the protection of agriculture in the Town. The plan proposes a new agriculture protection district that specifically protects and encourages agricultural uses where productive soils exist and minimizes conflicts between non-agricultural uses. In addition, revisions to other land use regulations are recommended in order to make the Town codes "farm-friendly."



The O-At-Ka Milk Products Cooperative is just one of the many agricultural industries in Batavia that supports and reinforces the importance of agriculture in the area.

The majority of the agricultural lands are found north of the Thruway with more scattered lands to the south. Within the study area, proposed developments that contain active farmland include areas south of the Thruway, the west side Route 98, and the proposed Agri-business park southeast of the City.

City of Batavia Comprehensive Plan (1997)

Adopted in 1997, the plan outlined various recommendations to guide future investment and development in the City. Being largely built-out, the majority of the recommendations dealt with reinvestment of existing properties, streetscape and business district enhancements and improvements, and neighborhood revitalization.

One of the key recommendations was the development of a business improvement district (BID) in the downtown core. The BID that was later created increased the economic vitality of downtown through façade and street improvements, marketing, event planning, and job creation and retention. The



installation of decorative street lighting, the landscaped center median on Main Street, and the facade improvements to the Genesee Country Mall are some of the most recent, noteworthy accomplishments.



The center, landscaped median; decorative streetlight;, banners; and seasonal decorations are all improvements that have help to invigorate Main Street and are all key strategies implemented from the City's Comprehensive Plan and BID.

A Vision for One Batavia: Plan for Consolidating the City and Town of Batavia in one Government (2009)

In 2007, the Town and City of Batavia initiated a joint study to examine opportunities for cost savings between the two municipalities, including the potential for consolidation into a single government. A committee made up of various individuals in the Town, City and County studied the potential consolidation, held public meetings, and ultimately prepared a summary of their findings to the Town Board and City Council. Although the two governments have a close working relationship with one another in multiple facets, the consolidation plan was developed to analyze the potential cost savings, create better efficiency of the management and delivery of services, and

increase the image and marketability of Batavia.

The committee's initial findings found that property taxes could be held at their current levels for Town and City residents and approximately \$1 million in annual savings is anticipated. Other changes are expected, especially in the administrations and boards, but delivery of services would remain as they currently are. The findings of the consolidation committee are to be brought before the Town Board and City Council for their consideration and ultimately presented to the public in a referendum.

Genesee County Comprehensive Plan (1997)

In 1997, the County prepared and adopted a County-wide Comprehensive Plan; a direct result from the Genesee 2000 strategic plan. A key component of the plan was to communicate a common vision and direction for the County and to improve coordination among County departments and local governments.

Ten focus areas were highlighted in the plan, including: land use; economic development; government administration; law enforcement and emergency management; health and human services; housing, utilities; transportation; parks, recreation and culture; and technology. Each of these focus areas were assigned a focus group that analyzed the issues and developed recommendations that were reviewed by a steering committee. After the adoption of the plan, this organizational structure has continued as monitoring reports have been developed by each focus group for review by the County.



The 2009 monitoring reports indicated that significant progress has been made in the County in all of the focus areas. Within the central corridor study area, several new industrial parks have been created (Gateway II and Upstate Med & Tech Park) or are under development (Genesee Valley Agri-Business).

These sites have continuously been marketed for business expansion and recruitment by the GCEDC. The County Smart Growth Plan continues to encourage development within designated Development Areas in order to preserve agricultural lands and reduce sprawl. Several County-sponsored, assisted-living housing projects have been successfully started in the corridor, including the DePaul facility on East Main Street, and housing rehabilitation continues to receive funding through State agencies and other organizations. Assisted living housing facilities continues to be a long-term recommendation in the County and is encouraged to be permitted in all municipalities as zoning is updated.

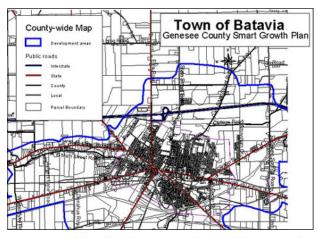
Genesee County Smart Growth Plan (2001, 2007 update)

The County Smart Growth Plan, adopted in 2001, was prepared by the Water Resources Agency to minimize sprawl into predominantly agricultural areas while supporting economic development in existing developed communities and areas.

The plan sought to limit water service hookups to non-agricultural uses outside of the designated Smart Growth Development Areas. Development may occur outside of the designated areas, but would be subject to specific criteria and reviewed by the County. Beginning in 2007, the Plan is to be reviewed every three years with modifications to the

boundaries in each Town considered at that time. No modifications have been proposed for the City of Batavia. However, two changes are recommended to the Town Smart Growth boundaries after public input, review of the County Agricultural Districts, and existing planning studies. In the draft Plan review, these areas include a portion of the Gateway Business Park No. 1 and 79 acres within the Agri-Business Park. No other modifications to other Towns are recommended by the County Planning Department.

The smart growth plan has been successful at directing future development and growth toward existing town centers, villages, or the City of Batavia. The majority of the development that has tapped into the County waterline has been located along major routes (state or county highways) and has been within the designated smart growth areas. Those that have been located outside of the designated Smart Growth Development Areas were typically existing structures and only allowed after careful consideration by the County.



An excerpt of the official smart growth map of the Town and City of Batavia. © Genesee County Planning Dept.



Genesee County Agricultural and Farmland Protection Plan (2001)

Similar to the Town's Agricultural and Farmland Protection Plan, the County's plan seeks to preserve agricultural resources throughout Genesee County, support agricultural enterprises, and direct development away from existing farms and farmland. The plan includes eleven recommendations that include reaffirming the importance of farmland in the County, conduct regulatory "audits" of each municipality to discuss alternatives and other protection methods, develop additional farmland protection funding sources, create "enhanced" agricultural districts, and conduct educational and training sessions.

In addition, an agricultural development plan was developed to identify several viable options that could be made available in the County for agricultural economic development. The plan focused on six focus areas, including economic development, business development, policy and planning, work force development, public outreach and education, and regulation and legislation. The Agricultural and Farmland Protection Board is charged with monitoring the implementation of various elements of the plan on the local level in order to reassess policies in the plan.

Other Studies and Plans

The following documents were also reviewed as part of this corridor study to coordinate the recommendations and findings of past studies and to ensure a holistic approach for future corridor recommendations.

- Redfield Parkway Signal Removal Study
- Richmond and Union Signal Study
- 1948 Traffic Study

- Walnut Street Traffic Study
- Industrial Corridor Study
- Traffic Impact Study: Wal-Mart Discount Store
- Traffic Impact Study: Wal-Mart Retail Store Hake Property
- Batavia Commercial Site Traffic Analysis
- Hake Property Rezone Transportation Impacts and Improvements
- Traffic Impact Study: Hake Property Retail Developers
- Veterans Memorial Subdivision Traffic Analysis
- Federal Detention Center Transportation and Access
- Chapin Estates Mobile Home Park Traffic Impact Analysis
- GTC Transportation Industrial Access Study
- BJ's Wholesale Traffic Impact Study
- Home Depot Site Traffic Impact Evaluation
- CORR Development Traffic Impact Study
- Agri-Business Park Traffic Impact Assessment
- Upstate New York Medical and Technical Park Traffic Impact Assessment

2007-2012 Transportation Improvement Program (TIP)

The Transportation Improvement Program (TIP) is a multi-year, cooperative program of projects that are identified throughout the Genesee-Finger Lakes region by the Genesee Transportation Council (GTC) and NYS DOT using federal funds. The projects range from roadway improvements to bridge reconstruction to bicycle routes; the TIP is required as part of the funding process by the



US DOT. The TIP for 2011-2014 includes several transportation projects in Batavia and is being considered by GTC in June of 2010.

- Summit Street reconstruction from East Main Street (Route 5) to North Street in the City of Batavia. Estimated completion date of December 2016.
- Cedar Street reconstruction from East Main Street (Route 5) to Ellicott Street (Route 63) in the City of Batavia.
 Estimated completion date of December 2014.
- Park Road reconstruction from Oak Street (Route 98) to Lewiston Road (Route 63) in the Town of Batavia. Estimated completion date of December 2016.
- Hopkins Road over Bowen Creek bridge replacement in the Town of Batavia.
 Estimated completion date of December 2014.
- South Lyon Street over Tonawanda
 Creek bridge replacement in the City of
 Batavia replacement of the existing
 single-lane bridge with a two-lane
 bridge. Estimated completion date of
 December 2015.
- Bowen Creek bridge replacement over Upton Road in the Town of Batavia.
 Estimated completion date of December 2015.





Aerial view of the project area. © Google Imagery (maps.google.com)

EXISTING CONDITIONS

For Batavia to make informed decisions and invest limited public resources wisely, community leaders and members require a clear understanding of the study area's existing conditions, both natural and physical. The location and extent of natural features, such as water bodies, wetlands, floodplains, steep slopes, prime agricultural soils, underground aquifers and bedrock depth, significantly impact how and where future development should be located or avoided. Physical infrastructure, such as roadways, sewers, waterlines, bridges and canals, affect the type and density of development that can be adequately supported. Also, development patterns and future trends are determined, in large part, by the land use and zoning regulations.

This section provides an overview of existing natural, physical, and policy conditions that will help determine future opportunities and constraints within the study area. This information will allow community leaders to more accurately determine where new development should be encouraged, where it should be avoided and what areas should be preserved.

A. PHYSICAL AND NATURAL FEATURES

Transportation and Pedestrian Network (Map 1 and 1A)

Batavia is served to varying degrees by diverse transportation system of highways and roads, rail, regional air, public transit, sidewalks and recreational trails. Four major state routes converge within the city limits: NYS Route 5 (Main Street Road), NYS Route 33 (Pearl Street Road, Clinton Street Road),

NYS Route 98 (Oak Orchard Road, Alexander Road), and NYS Route 63 (Lewiston Road, Ellicott Street). The state routes' hub and spoke configuration makes connections between some of the routes difficult, often requiring passage through the center of downtown. These same routes link the City to the Town of Batavia and surrounding Towns and Villages.

The New York State Thruway/Interstate 90 traverses the Town just north of the City. Exit 48 is located on Route 98, which has prompted a significant amount of retail and business/industrial park development in the immediate area of the interchange. In addition, existing and proposed development in the region has been bolstered by the area's convenient access to I-90.

Rochester Genesee Regional Transportation Authority (RGRTA) operates and maintains the local Batavia Bus Service (BBS), or B-Line, throughout the County. Three dedicated



Many of the main roads in Genesee County converge in Batavia, including Routes 5, 33, 63 and 98, as well as the Thruway (interstate 90).



bus routes serve the majority of City and a portion of the Town along State routes as well as key points of interest and community services, such as United Memorial Medical Center, NYS School for the Blind, GCC and Batavia Downs. In addition, a dedicated route provides service to the Village of LeRoy four times a day once a week. Fares for service within the City are a flat rate for one-way trips, with discounts for seniors, children, and frequent riders; LeRoy service is slightly more.

A dial-a-ride service provides users with direct access to public transportation within the City and to surrounding Towns. Busses on the three dedicated routes pick up and drop off riders at any corner along the route should a rider request a drop off or be present at a stop; stops are identified through signage. Currently there are three shelters located the City. Three additional locations will be added to enhance the system's use. At the present time, there are no shelters located in the Town.



Bus shelters, although minimally found in the area, provide a safe haven for transit users from inclement weather - BBS is looking to expand the number of shelters in the future.

Sidewalks are located throughout the City and in dense developments in the Town adjacent

to the City. In most instances, the sidewalks are located on both sides of the streets. As proximity to the city and density of development decrease in the more rural areas of the Town, sidewalks are only provided on one side of the road and then end. Many pedestrians utilize the wide shoulders in the Town for walking and biking purposes where sidewalks are not installed. The existing network of sidewalks provides alternative transportation for recreational users and those without vehicles. Although not visible in the map, the majority of the adjoining neighborhood streets also have sidewalks that connect to the larger network.



Outside of the City and some portions of the Town, sidewalks do not exist. In the image above, a pedestrian uses the wide shoulder near the County Fairgrounds where sidewalks are not present.

The Genesee Transportation Council (GTC) developed the Regional Trails Initiative (RTI) in 2002-2004 via extensive public participation to identify and prioritize trails for further development, provide guidance to local communities interested in advancing the regional trails and bicycle network, and set the stage for completing project-specific feasibility studies prior to each trail's consideration for funding. The RTI Phase I includes 252 Miles of trails and Phase II includes 516 miles of trails in the nine-county Genesee-Finger Lakes Region. The RTI also

includes guidance for development of the regional on-street bicycle network.

Opportunities for future trails in the area have been identified along the former Lehigh Valley and Penn Central railways south and east of the City, but as of this writing only the Batavia Creek Park Trail is under development.

Four dedicated snowmobile trails are also found in the study area and are part of a larger statewide snowmobile trail system. The trails are maintained by the Genesee Sno-Packers Club and are predominantly located north of the Thruway; a smaller trail is found along the NY Central Lines rail bed southeast of the City.

CSX Corporation and Amtrak operate freight and passenger rail service, respectively, through the southern portion of the study area. A shorter rail spur line exists in the central portion of the City south of Route 5. The ownership of the line was formerly through Conrail and is presumed to be used on a limited basis. Many abandoned rail beds exist in the area, many of which converged in and around the City, including the Leigh Valley, Penn Central, and New York Central Lines. The Genesee County Airport, located north of

Saile Drive, is primarily geared to general aviation and includes one runway (5,500 feet), a fueling station, hangers, and service facilities. Commercial or regional airlines do not operate out of the County airport. In 2009, there was an average of 110 aircraft operations per day.

Water Features (Map 2)

Spring Creek and Tonawanda Creek and the two prominent surface water features in the study area. Tonawanda Creek, which flows directly through the City, is also prone to greater flooding potential, as indicated by the FEMA designated 100-year flood zone.

While generally limited to an area bounded by Route 5 and South Main Street Road west of the City, the flood zone encompasses a greater amount of land as it assumes a north-south direction near the center of the City. Coupled with large expanses of Federal and State regulated wetlands, this area is comprised largely of vacant, undevelopable lands.

Other flood-prone areas, including areas of shallow flooding (less than one foot) and 500-year floodplains, are located east of Tonawanda Creek and south of Route 5 in the City.



Although commercial or regional airlines do not operate out of the County airport, many private aviation businesses utilize the facility on a regular basis.



Tonawanda Creek looking west toward the Walnut Street pedestrian bridge. The creek is both a source of recreational opportunities, as well as a potential hazard due to flooding. © National Weather Service, Northeast River Forecast Center.



A 100-year floodplain also encompasses Spring Creek. However, the extent of the floodplain is confined to the banks of the creek. A larger floodplain area and Federal wetland is located south of the exit 48 interchange as well as two larger areas straddling the Thruway east of State Street Road.

Development within a floodplain is regulated by the City and Town and requires specific building construction standards to ensure the floodway is not enlarged and the buildings can withstand flooding events. State and Federal wetlands, regulated by the NYS DEC and US Fish and Wildlife, respectively, require wetland mitigation if they or their buffer zones are disturbed. Good development practices should ensure that wetlands are not disturbed and instead integrated into the overall design of a particular development. Wetlands and floodplains are crucial for habitats, groundwater filtration, and absorbing excessive stormwater.

Topography (Map 3)

Within the study area, the topography of the Town and City is relatively flat. Steep slopes, which are typically defined as slopes greater than 15%, are limited. They are located in the northeast corner of the Town and along the eastern border with Stafford. It is due to this relatively flat geography that the Town and City are susceptible to flooding events, especially along Tonawanda Creek.

Other topographical features in the study area include subsurface karst bedrock, which extends throughout the northern portion of the County. This type of bedrock is characterized as highly erodible and permeable, resulting from numerous cracks or fissures along its surface, and may also be susceptible to

underground voids or sinkholes. Due to its high erosion potential, areas where the bedrock is closer to the surface may require additional geotechnical engineering to ensure adequate foundations. In addition, groundwater may be more easily contaminated in areas where drainage is higher due to the numerous cracks or fissures in the bedrock.

Agriculture (Map 4)

Agriculture is one of the primary industries in the Genesee County, ranking fourth in the State for value of agricultural products sold. Over 50 percent of the entire Town of Batavia is classified as agricultural, while less than two percent of the land in the City is considered agricultural. Most of the farmland within the study area consists of productive farm fields that are part of an operating agricultural operation, though they may not necessarily have structures on the lots. The majority of these active farmlands in the study area are located north of the City with some also scattered in the southeast between Routes 5 and 63.

Prime farmland, classified as soils that have the highest potential for crop growth with little to no additional resources required, is found throughout the study area as well. A large swath of land south of the Tonawanda



Active farmland, though currently lying fallow, located between Route 5 and the Thruway.



Creek does not contain prime soils nor many farm parcels, primarily due to the extensive amount of wetlands and floodplains found there.

County Agricultural District 1 and 2 are located in the northern and southern portions of the Town, respectively. The presence of the districts encourages continued farming operations through tax relief, relief from unreasonable local laws, and right to farm laws. With agriculture as one of the primary, most viable industries in Genesee County, active farmland should be preserved wherever possible, especially when prime farming soils are present. In addition, preserving farmland helps to preserve the local, rural character that draws new residents and visitors to Batavia each year. Where development is proposed for areas that include mapped agricultural assets (prime soils, active farmland, County agricultural district), development should be concentrated in such a way that large tracts of farmland can remain active to the greatest extent possible.

Infrastructure (Map 5)

To a large extent, public infrastructure, especially water service, plays a critical role in determining where development can occur. Other services, including sewer, gas, electricity, and cable/fiber optics, are not mandatory, but do increase overall development potential, especially for commercial and industrial growth. Sewer and water service is provided by the City of Batavia with water main and sewer trunk lines extending into limited areas of the Town.

Sewers are limited to Route 33 east, Route 98 north, Route 63 west, and Route 5. Potable water is provided to residents and businesses via two wells located in the southeastern corner of the City and the main lines run

along the major state routes, as well as along State Street and West Saile Drive to the north of the City.

The County's Smart Growth Development Area encompasses the majority of the water main locations. The County regulates service taps based upon a developments' impact to agricultural resources. The Development Area extends a limited distance north of Route 5 west of the City and, with the exception of the County Airport, ends around Saile Drive to the north. Two areas of potential commercial development include the area north of Route 5 and on the west side of Route 98, north of the Thruway. Although water mains exist nearby, these areas are not located within the Smart Growth boundary and would require review by the County prior to development.

A 115 kV high-voltage electric transmission line is also located in a portion of the study area. As a main transmission corridor that crosses the State, the location of this line also increases the development of industries and manufacturing, which typically require higher amounts of electricity. The presence of this high voltage line and the extent of water and sewer service have been successfully marketed by the County for bringing in new industries and creating and retaining jobs.





C. CURRENT LAND USE & ZONING

Land Use

Town of Batavia (Tables 3.1—3.3, Map 6)

Land uses are categorized according to their primary use and given a three digit number as determined by the NYS Office of Real Property Services (NYS ORPS). This categorical system is used by all municipalities throughout the State to ensure consistency. The extent of the various land uses can help a community determine where potential developable land may be present (e.g. large tracts of vacant land), the location of higher concentrations of farmland or residential development, and also help to guide future zoning decisions.

In the Town of Batavia, more than half of the land in the study area is classified as agricultural in terms of acreage, although this encompasses less than 6 percent of the total parcels. These parcels are located throughout the study area, with a higher concentration north of the Thruway. A majority of the parcels (54 percent) are classified as residential. Residential parcels also account

for the highest assessed total value (\$89 million).

Residential properties, as in the case of most rural towns, are primarily located along major roadways due to proximity of utilities and ease of access. Although mainly single-family homes, a high concentration of mobile homes are located along Route 33 east of the City. Mobile homes are generally located in dedicated parks or developments and not permitted as stand-alone structures on single lots.

Commercial uses, the second highest total assessed value in the study area, are also located along major roadways for the same reasons. Large tracts of commercial property are found along Route 33, east of the City; Route 98, north of the City; and Route 63 along Veterans Memorial Drive. Although multiple parcels along Veterans Memorial Drive are classified as "no data," on-theground observation indicates that big-box style commercial retailers are the primary uses, especially with the recent construction of the Lowes and Target stores. In terms of property value, agricultural lands come up fifth, behind residential, commercial,

	Table 3.1: Town of Batavia - 2009 Study Area Land Use Classification							
Code	Property Class	Parcels	% of Total	Acreage	% of Total			
100	Agricultural	70	5.43%	5,209.51	58.08%			
200	Residential	697	54.07%	1,060.60	11.82%			
300	Vacant	159	12.34%	1,099.12	12.25%			
400	Commercial	117	9.08%	469.36	5.23%			
500	Recreation	8	0.62%	268.28	2.99%			
600	Community Service	14	1.09%	383.15	4.27%			
700	Industrial	7	0.54%	200.74	2.24%			
800	Public Services	2	0.16%	97.80	1.09%			
900	Conservation & Parks	1	0.08%	8.00	0.09%			
0	No Data	214	16.60%	172.83	1.93%			
	TOTAL	1,289	100.00%	8,969.39	100.00%			

community services, and parcels that are not classified. Collectively, the 1,289 parcels that make up the Town's portion of the study area are valued at over \$234 million. In addition to the development areas mentioned further in this study, some of the larger industrial uses in the Town include the O-At-Ka Milk Products dairy cooperative, Hansen Aggregates, and other, smaller manufacturing operations and facilities. Some of the largest landowners in the study area include local farmers, the County, O-At-Ka Milk Products, and Niagara Mohawk Power Corp.

An comparison of land use changes since 2003 indicates the town has experienced some obvious changes in key areas of the Town. This is especially evident in the vicinity of the industrial parks off of Route 63 on the east side of Town and Saile Drive. In addition, the number of commercial properties increased, especially on Veterans Memorial Drive. In many instances, lands were updated from "no data" to agricultural to reflect their true primary use.

	Table 3.2: Town of Batavia - 2009 Study Area Land Use Values							
Code	Property Class	Assessed Land Value	% of Total	Assessed Total Value	% of Total			
100	Agricultural	\$6,676,780.00	17.50%	\$9,341,100.00	3.98%			
200	Residential	\$10,526,158.00	27.58%	\$89,341,099.00	38.11%			
300	Vacant	\$2,714,250.00	7.11%	\$2,770,250.00	1.18%			
400	Commercial	\$11,440,700.00	29.98%	\$69,028,513.00	29.44%			
500	Recreation	\$1,395,000.00	3.66%	\$2,082,164.00	0.89%			
600	Community Service	\$2,833,100.00	7.42%	\$28,906,000.00	12.33%			
700	Industrial	\$705,000.00	1.85%	\$4,510,000.00	1.92%			
800	Public Services	\$75,000.00	0.20%	\$80,000.00	0.03%			
900	Conservation & Parks	\$20,000.00	0.05%	\$20,000.00	0.01%			
0	No Data	\$1,773,650.00	4.65%	\$28,376,038.00	12.10%			
	TOTAL	\$38,159,638.00	100.00%	\$234,455,164.00	100.00%			

Table 3.3: Town of Ba	Table 3.3: Town of Batavia - Study Area Largest Landowners (100+ acres)					
Landowner(s)	Acreage	Parcels	Approximate Location			
			Northwest portion of study area			
Call Farms	1,200+	26	along Thruway			
County of Genesee	600+	19	County airport and GCC campus			
Offhaus Farms, Inc.	430	5	North of Thruway on Route 98			
Hawley family	300+	21	North of City between Bank and State St. Rd.			
Genesee Valley Agri-Business, LLC.	200+	6	Southeast of the City between Routes 5 and 63			
O-At-Ka Cooperative	190+	7	Southeast of the City on Route 63			
Town of Batavia	114	8	Scattered throughout			
Niagara Mohawk	114	14	Scattered south of the City			



City of Batavia (Tables 3.4—3.6, Map 7)

The City of Batavia comprises a much smaller land area (2,748 acres) compared with the Town's portion of the study area (8,969 acres). However, with a greater density and concentration of residential and commercial uses, the City's assess total value of \$663 million is considerably higher. Residential uses account for the largest in terms of parcels (78 percent) and acreage (62 percent) in the City and are located throughout the City. Of the total residential properties, over 80 percent are classified as single-family housing. The third highest land use in the City,

commercial uses contribute over \$121 million and are found primarily along the Route 5 corridor; larger parcels are located at the outskirts of the City, where big-box retailers and strip malls are found. Large tracts of vacant lands, which make up the second highest land use in acreage, are located along the northern border, south of Tonawanda Creek, and in the southeast. Although these areas have development or redevelopment potential due to their property status, natural features may be an inhibiting factor, especially for areas south of the Creek. The largest landowners within the City include the City and County, as well as

Т	Table 3.4: City of Batavia - 2009 Study Area Land Use Classification						
Code	Property Class	Parcels	% of Total	Acreage	% of Total		
100	Agricultural	1	0.02%	51.65	1.88%		
200	Residential	4,419	78.91%	1,032.33	37.56%		
300	Vacant	418	7.46%	559.25	20.35%		
400	Commercial	443	7.91%	381.47	13.88%		
500	Recreation	27	0.48%	212.99	7.75%		
600	Community Service	83	1.48%	226.51	8.24%		
700	Industrial	26	0.46%	190.49	6.93%		
800	Public Services	8	0.14%	32.54	1.18%		
900	Conservation & Parks	1	0.02%	4.03	0.15%		
0	No Data	174	3.11%	57.36	2.09%		
	TOTAL	5,600	100.00%	2,748.62	100.00%		

	Table 3.5: City of Batavia - 2009 Study Area Land Use Value							
		Assessed Land		Assessed Total				
Code	Property Class	Value	% of Total	Value	% of Total			
100	Agricultural	\$66,700.00	0.07%	\$66,700.00	0.01%			
200	Residential	\$60,507,680.00	62.01%	\$390,920,000.00	58.90%			
300	Vacant	\$4,334,000.00	4.44%	\$4,851,600.00	0.73%			
400	Commercial	\$17,015,303.00	17.44%	\$121,824,453.00	18.35%			
500	Recreation	\$3,859,500.00	3.96%	\$9,276,300.00	1.40%			
600	Community Service	\$6,775,900.00	6.94%	\$101,033,840.00	15.22%			
700	Industrial	\$3,556,000.00	3.64%	\$20,949,000.00	3.16%			
800	Public Services	\$928,700.00	0.95%	\$10,270,471.00	1.55%			
900	Conservation & Parks	\$65,500.00	0.07%	\$84,800.00	0.01%			
0	No Data	\$474,600.00	0.49%	\$4,480,286.00	0.67%			
	TOTAL	\$97,583,883.00	100.00%	\$663,757,450.00	100.00%			





A variety of homes are found in the Town, including these older brick houses along Route 63 just outside of the City limits.

various institutional organizations and private individuals. Reinhart Enterprises, a local real estate and development firm, and the City of Batavia are the largest property owners in, each with more than 150 acres of total land.

The large tracts of contiguous land (over 20 acres) are found predominantly at the outskirts of the City. However, most of these properties are classified as non-vacant, with the exception of a large, semi-wooded

property south of the Thruway interchange and agricultural lands north of Route 33 on the east side of the City.

Within the City limits, land use changes were mainly confined to the outskirts of Batavia. The largest of which consisted of the conversion of industrial lands south of Route 5 to vacant and recreational uses. Commercial uses were expanded around the Genesee Country Mall and at the western end of Route 5 in the City. A large swath of land north of Batavia Downs was reclassified as community service and commercial uses. In general, there have been much less noticeable land use change in the City in comparison to the Town between 2003 and 2009.

Existing Zoning

Town of Batavia (Map 8)

The Town of Batavia consists of ten zoning districts, with the majority of the Town designated as agricultural residential, reflecting the primarily agricultural nature of

the community. Dedicated residential districts are limited to areas adjacent to the City of Batavia, and a few other districts located along State routes. The commercial district, which is intended to allow a wide range of commercial uses, is found along Route 5 and a wide swath of land between Route 5 and Thruway exit 48.

It is within this district that nationally-known, big box developments are found, including Wal Mart, Home Depot, BJ's Wholesale Club, Lowe's, and Target,

Table 3.6: City of Batavia - Study Area Largest Landowners (20+ acres)

241140 (11618 (20) 461 68)					
Landowner(s)	Acreage	Parcels			
City of Batavia	195+	66			
Reinhart Enterprises	157+	11			
County of Genesee	96+	11			
Gregory Post	52+	2			
Board of Education	50	14			
US Veterans Hospital	45+	1			
Judy Boyle	43+	1			
Chapin International	36	1			
Niagara Mohawk	36	11			
NYS School for the Blind	35	1			
Western Regional Off Track Bet- ting	33+	1			
Batavia Townhouses	23	1			
St. Joseph's Church	23	16			
Basket Place, LLC	22+	1			
Graham Manf. Co., Inc.	22	1			

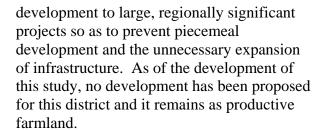


among others. Smaller commercial districts are also located on the eastern portion of Route 5 bordering the City and north of Saile Drive. Reflecting the future land use map in the Town's Comprehensive Plan, within the study area, industrial districts are found in the southeast and in the vicinity of the Thruway interchange.

A large planned business development district is also located north of the Thruway, intended to establish an area for a variety of commercial, industrial, and/or recreational uses while allowing agricultural uses to continue. While this district is located outside of the County's designated Smart Growth Development Area, it does contain potential

T	able 3.7: Town of Batavia Zoning Dis	stricts
District	Allowable Uses	Min. Dimensional Req.
Agricultural Residential (AG-R)	Agriculture, one- and two-family dwellings, mobile homes, religious institutions, parks, schools, home occupations, cluster residential developments.	Residential: 16,000 SF lot (water district), 20,000 SF (no water district) with 30% coverage. Nonresidential: 85,000 SF lot with 30% coverage.
Residential (R)	One- and two-family dwellings, religious institutions, parks, agriculture, schools.	Residential: 16,000 SF lot (water district), 20,000 SF (no water district) with 30% coverage. Nonresidential: 40,000 SF lot with 35% coverage.
Hamlet Residential (HR)	One- and two-family dwellings, public buildings, parks, agriculture, schools.	10,000 SF lot with 30% coverage.
Commercial (C)	Retail, restaurants, hotels, commercial greenhouses, offices, wholesale trade, theaters, banks, agriculture.	40,000 SF lot with 35% coverage.
Hamlet Commercial (HC)	Retail, restaurants, professional offices, funeral homes, banks, residential.	Residential: 10,000 SF lot with 30% coverage. Nonresidential: No minimum lot, 50% coverage.
Industrial (I)	Warehouse, enclosed manufacturing, retail, existing residential, agriculture, adult uses.	40,000 SF lot with 35% coverage.
Industrial Park (IP)	Warehouse, enclosed manufacturing, wholesale trade, commercial/professional office, R&D facility, gov't facility, public utility, recycling facility, pond.	40,000 SF lot with 35% coverage.
Mobile Home Park (MHP)	Mobile homes and campgrounds.	No requirements given.
Planned Unit Development (PUD)	Any previously specified uses.	Determined during development. Upstate Med & Tech Park has 40,000 min. lot size and 75% coverage.
Planned Business Development (PBD)	Commercial, industrial, recreational and/or mix of uses; those allowed in IP district.	Determined during development.
Floodplain Overlay (FPO) – see water features map.	Overlay district with underlying uses subject to additional criteria and standards.	No requirements given.
Wellhead Protection Overlay (WPO) - see infrastructure map.	Overlay district with underlying uses subject to additional criteria and standards.	No requirements given.

NOTE: Interchange district found in zoning table, but no text for this found in the code.



A brief overview of the allowable uses and dimensional requirements of each district is shown in Table 3.7.

In addition to the regulation of allowable uses and lot dimensions, the zoning code also provides regulations for buffering between incompatible uses (e.g. residential use adjacent to commercial or industrial use), minimum parking requirements, signs, and criteria for site plan review.

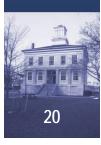
The town code, which includes zoning, subdivision, and many other codes or local laws, also includes regulations and design specifications for roadways. These specifications are catered primarily toward vehicular traffic, but do include some regulation related to pedestrian sidewalks. The requirement for pedestrian sidewalks, or other alternative transportation areas such as bike lanes, is not mandatory in any of the districts in the Town. Rather, their inclusion is at the discretion of the developer and/or the planning board, although the general provisions in the zoning code explicitly states that development should "... [Provide] safe and convenient vehicular and pedestrian traffic movement appropriate to the various uses..." Pedestrian connections are encouraged in mobile home parks and planned unit developments, although good planning and development practices would extend this to the hamlet commercial and residential districts as well.

City of Batavia (Map 9)

Within the City of Batavia, there are 16 zoning districts, the largest of which is related to residential followed by the industry. The commercial districts are predominantly located along Route 5 and a portion of Route 63, including Main Street, in a linear fashion concentrated at the main intersection of Routes 5, 33 and 63. Industrial districts are located on the outskirts of the City between Routes 5, 33 and 63 as well as a large expanse between Routes 33 and 98. The remaining portions of the roadways consist of medium and high density (two or more family units) residential districts, with single-family residential north of Route 5. A brief overview of the allowable uses and dimensional requirements of each district is shown in Table 3.8.

In addition to the regulation of allowable uses and lot dimensions, the zoning code also provides regulations for buffering between incompatible uses (e.g. residential use adjacent to an office or retail use), performance standards for industrial uses, minimum parking requirements, signs, and criteria for site plan review.

In comparison to the Town's regulations, the City's code includes numerous regulations and local laws pertaining to sidewalks, their installation and maintenance, in addition to standards for roadways. Sidewalks may be required on city streets in areas where they do not currently exist as well as within new residential subdivisions. Roadway reconstruction projects also must incorporate sidewalks if none exists, unless undue circumstances would render their installation and use unsafe, impracticable, or cost-prohibitive. Although street design standards are included in the code, dedicated bicycle



7	Table 3.8: City of Batavia Zoning Districts				
District	Allowable Uses	Min. Dimensional Req.			
Limited Commercial (C1)	Any R3 uses, retail, banks, prof. offices, restaurants, bed and breakfasts.	5,000 SF lot with 30% coverage			
General Commercial (C2)	Any C1 uses, hotels, places of assembly or amusement, small animal veterinarians, hospitals, personal services, shopping ctr.	5,000 SF lot with 40% coverage			
Central Commercial (C3)	Retail, banks, professional offices, restaurants, hotels, places of assembly or amusement, commercial printer/publisher, parking areas, shopping centers, businesses with incidental goods processing.	No requirements given.			
Historic Overlay (HO)	Any C2 uses subject to Historic Preservation Committee review.	No requirements given.			
Industrial (I1)	Retail, industrial uses that utilize previously refined goods, industrial offices/parks, art galleries.	15,000 SF lot with 40% coverage.			
Industrial (I2)	Any I1 uses and extractive uses.	15,000 SF lot with 40% coverage.			
Industrial (I3)	Retail, warehouse and storage, office bldgs., scientific/research facilities, art galleries, rail yards.	No requirements given.			
Land Conservation (L)	Agricultural operations, parks, municipal facilities.	No requirements given.			
Planned Industrial Dev. (P1)	Commercial, automotive, light industrial uses.	Determined during development.			
Planned Medical Dev. (P2)	Medical facilities.	Determined during development.			
Planned Service Comm. Dev. (P3)	Elderly high-rise apartments.	Determined during development.			
Planned Residential Dev. (P4)	Any R1 uses where common space is held by a homeowners association or similar group.	Determined during development.			
Residential (R1)	Single-family and public uses.	8,000 SF lot with 25% coverage			
Residential (R2)	Any R1 uses, two-family, rooming/boarding houses, hospitals/nursing homes.	8,000 SF lot with 25% coverage			
Residential (R3)	Any R3 uses, club/civic houses, private nursery or kindergarten.	5,000 SF lot with 30% coverage			
Residential (R1A)	Same as R2, except no boarding/ rooming houses or hospitals/ nursing homes.	8,000 SF lot with 25% coverage			

lanes are not specified. Land use development and design within the commercial districts and planned unit development districts are encouraged to incorporate pedestrian connections and sidewalks wherever possible; this is included as a review criterion for the planning board during site plan review.

D. PLANNED DEVELOPMENT (Map 10-13)

Industrial Parks

The Genesee County Economic Development Center (GCEDC) has worked on the development of several business and industrial parks throughout Batavia. The 56-acre Gateway Corporate Park, located on Route 98 north of the Thruway, was the Center's first business park in within the study area and is almost fully built out. Currently, there is only one 2.5 acre site available.

Following the success of that park, Gateway II was developed just north of Gateway I on the east side of Route 98. With 39 acres of developable land, limited by the presence of a wetland, the park has the potential for approximately 310,000 square feet of commercial, office, or industrial space. At the time this report was prepared the only occupant in the park is an Ashley Furniture distribution warehouse.

Located across from the Genesee Community College (GCC), the Upstate Med & Tech Park encompasses 30 acres initially, with 60 acres total including expansion space to the south. The park is catered toward medical technology, research, rural healthcare, and telemedicine for start-up businesses and enterprises.

Currently, a 43,000 square foot facility is under construction for GCEDC offices, GCC programs, and various United Memorial Medical Center (UMMC) programs. The park has the potential for over 165,000 square feet of industrial, office, and business space.

The fourth development area, and by far one of the largest in the study area, is the Genesee Valley Agri-Business Park, located between Routes 5 and 63, adjacent to the O-At-Ka Milk Products facility. This 200+ acre park, which is currently under development, is geared toward agricultural enterprises including food processing, research and biofuels and has the potential for over two million square feet of industrial space. During the development of this study, the infrastructure within the park was being completed and a food processing facility has the potential to become the first occupant in the park.

In addition to these parks within the study area, there are other development opportunities found in other locations in the County. These include the Science and Technology Advanced Manufacturing Park (STAMP) in the Town of Alabama, Buffalo East Technology Park in Pembroke, Apple Tree Acres in the Town of Bergen, and Oatka Hills Commerce Park I and II in the Town of LeRoy. As shown in Map 10 in the appendix, these sites contribute over 1,700 acres of additional development space for industries that can potentially impact the corridors.

Build-Out Analysis

As part of the corridor study, a build-out analysis of the Town of Batavia was performed to determine the development potential within the study area. A build-out analysis estimates the amount and



approximate location for future development given the existing land use and development regulations in a municipality.

Generally, a build-out analysis is a "worst-case" scenario in which all available land that could be developed is examined based on the assumption that the existing zoning regulations remain as they currently are and no additional land is permanently protected. This information is important for estimating future infrastructure demands as well as testing the practicality of existing zoning and development regulations.

Although the build-out in the Town shows large amounts of development, the reality is that full build-out would not likely occur for another 15 to 20 years, depending on economic and development pressures. With the development in and around Veterans Memorial Drive, build-out may occur sooner as surrounding businesses become profitable and the area receives greater visibility to the region.

Zoning regulations in the Town dictate the minimum size of lots and the maximum amount of impervious surfaces that are allowed; minimum dimensions were utilized across all zoning districts. In addition, several properties in the Town are located in more than one zoning district. In these instances, the properties were analyzed as if they were entirely in one district; specifically the district that the majority of the property was contained in.

The analysis examined all the parcels within the study area that have reasonable potential to be developed; most new development in the region takes place on vacant land or farmland that is eventually sold off and subdivided. The NYS Office of Real Property Services' property land use classification system was utilized to determine the number of agricultural and vacant lands located in the corridor. The parcels were then reviewed for any environmental site constraints that may exist such as Federal or State wetlands, steep slopes (greater than 15 percent), or FEMA floodplains. These constraints were removed from the potential developable acreage. In some cases, the majority of some parcels contained development constraints on more than 90 percent of the property; these parcels were excluded from the build-out analysis.

Residential development potential was determined based upon the number of lots that can be subdivided in residential and agricultural districts. The result is given in the number of units (lots) that could be developed. Parcels located in commercial, industrial, industrial park or planned unit development districts were analyzed based upon the potential square footage of building space that could be developed. The potential square footage was determined based on average industry standards of 10,000 square feet per acre of developable land.



The Upstate Med and Tech Park, located across from Genesee Community College, is currently under construction.

To account for other impervious surfaces such as parking and driveways, 15 percent was subtracted from the developable acreage. Tables 3.9 and 3.10 highlight the total development potential contained within the Town in terms of residential and commercial/industrial uses.

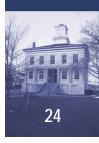
Overall, given the existing zoning regulations and assuming all possible land is developed following minimal lot sizes, just over 10,200 residential lots could be subdivided and added to the Town. Commercial and industrial space would entail just under 13 million square feet, which includes the developable land located in the major industrial parks and planned development areas. For a comparison, a typical Wal-Mart Supercenter is approximately 200,000 square feet in size. The anticipated development potential would equate to approximately 65 Supercenters.

The City of Batavia, in comparison, is almost fully built out, with few large expanses available for new development. In addition, a large portion of the City south of Route 5 is contained within the Tonawanda Creek floodplain. Therefore, properties in this general vicinity may not be appropriate for development.

Within the City, there is a greater opportunity for infill development and redevelopment of underutilized and/or vacant properties. The majority of these properties range in size from a quarter acre or smaller to three acres.

Table 3.9: Town of Batavia Potential Development—Residential						
District # of Parcels Acreage # of Lots						
Ag-Residential	105	3,718	10,122			
Residential	33	43	117			
TOTAL	138	3,761	10,239			

Table 3.10: Town of Batavia Potential Development - Commercial & Industry			
District	# of Parcels	Acreage	Sq. Feet of Space
Industrial	14	255	2,171,324
Industrial Park	9	293	2,487,739
Commercial	35	484	4,109,851
Planned Dev.	12	603	4,142,727
TOTAL	70	1,634	12,911,641



OPPORTUNITIES AND CONSTRAINTS

This study addresses a multitude of interrelated issues, such as land use and development, vehicular circulation, multimodel access, streetscape, site design and safety. Understanding the community's needs and examining the corresponding opportunities and constraints associated with these issues helps create framework for future strategies and recommendations.

The following summary of needs, opportunities and constraints was developed based on the examination of current conditions and the understanding of anticipated trends and developments in Batavia and the surrounding region.

LAND USE AND DEVELOPMENT

Needs

- Provide residential housing for seniors and elderly, as well as median income households
- Ensure commercial development along higher volume routes is well designed and has a positive contribution to traffic movements and the surrounding neighborhood
- Take advantage of industrial parks in progress or under development

Opportunities

- Industrial parks that are planned or under construction
- Large amount of land available for potential future development near Route
 98 and Saile Road and along Route 5 west of the City
- Redevelopment potential within the City, especially for lofts and upper story

- residential units in mixed use structures
- Housing for middle-income households (estimated 2008 median household income for Genesee County is \$49,133) and empty -nesters/seniors
- Wegmans or other local grocery store
- County-sponsored/initiated senior living care facility
- Veterans Memorial Drive retail/ commercial growth

Constraints

- Presence of floodplain adjacent to Tonawanda Creek, especially in the southern portion of the City and into the Town
- Large expanse of wetlands surrounding Route 98 south of the City as well as between the City line and the Thruway in the Town
- Limited amount of vacant land available within the City for large-scale residential development
- Perceived surplus of apartments
- Active farmlands north of the City and their economic importance in the County v. development pressures
- Smart Growth boundary can limit development in the Town, especially north of the Thruway and west of Routes 5 and 63

VEHICULAR CIRCULATION

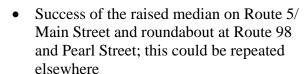
Needs

- Improve level of service to intersections where levels are "D" or lower
- Lessen congestion and/or traffic volumes
- Improve efficiency of existing roadways

Opportunities

 Rerouting of tractor-trailers out of the City, with the exception of local deliveries





 Reconfiguration or installation of additional traffic controls at the Route 98 and Saile Drive intersection

Constraints

- Limited connections between State Routes
- Seasonal flooding of Route 98 south of the City due to extensive floodplain

PEDESTRIAN/BICYCLE/TRANSIT SYSTEMS

Needs

- Increase/encourage transit system use in denser areas to lessen vehicular volumes
- Provide a safer environment for bicyclists
- Establish connections to existing or upgrade inadequate pedestrian networks

Opportunities

- Enhanced signage and pedestrian warning systems to alert motorists to the presence of bicyclists and pedestrians
- Increased number of bus shelters
- Dedicated on-street bike lanes (via road restriping
- Dedicated sidewalks and/or multi-use paths for pedestrians, especially in pedestrian areas such as GCC
- Enhanced signage to alert motorists to signage
- Park and ride facilities
- Enhanced cross-walks at high-volume and/or high-speed intersections

Constraints

Location of schools (high school and GCC especially)

- Right-of-way widths limit extent of improvements
- High volume (AADT) roadways

STREETSCAPE

Needs

- Provide a high-quality public-private environment to encourage additional economic development and draw visitors and consumers
- Amenities for pedestrians and other nonmotorists in areas of where higher concentrations exist
- Improve the aesthetic appeal of the roadways to motorists and non-motorists and provide buffers to non-commercial development

Opportunities

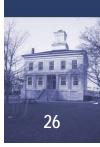
- Success of raised, landscaped median on Route 5/Main Street could be replicated to a certain extent elsewhere
- High concentration and percentage of pedestrians around GCC and High School provides incentive for improvements/ upgrades

Constraints

- Right-of-way width
- Public v. private investment abilities

Opportunities

- Success of raised, landscaped median on Route 5/Main Street could be replicated to a certain extent elsewhere
- High concentration and percentage of pedestrians around GCC and High School provides incentive for improvements/ upgrades



SITE DESIGN

Needs

- Quality site designs that mirror the existing character of the surrounding area (i.e. rural v. urban)
- Increase access management among adjacent businesses and parcels
- Encourage good site design principles to ensure a high quality structure and conformity with surrounding neighborhood

Opportunities

- Driveway access consolidation, especially within the City limits between the Routes and 63 and Route 5 and 33 splits where volumes are much higher
- Shared parking among stores and businesses lessens access points and improves efficiency

Constraints

 Expansive wetlands and floodplains makes large portions of land undevelopable, especially to the south

SAFETY

Needs

- Provide safer environment for pedestrians and bicyclists, especially in the central business district of the City, GCC, and the High School
- Decrease the number and severity of vehicular crashes at intersections that are higher than the NYSDOT average rate

Opportunities

 Identify intersections suitable for round about installation at existing or future intersections

- Explore opportunities to further evaluate and improve, if needed, pedestrian and bicycle safety at high-use locations
- Features such as curb bumpouts or raised crosswalks, high visibility pedestrian signage and lighting
- Improved bike route signage and highvisibility road markings
- Identify bike and pedestrian routes that utilize local roads where possible

Constraints

- Limited right-of-way may limit roadway or intersection enhancements.
- Wide roadways and high volumes impede pedestrian and bicycle access
- Location of GCC campus and limited pedestrian accommodations to the campus increase potential pedestrian-vehicle conflicts.









TRANSPORTATION ANALYSIS

A. EXISTING TRANSPORTATION AND TRAFFIC CONDITIONS

Within the study area, several major roadways converge to create a significant transportation hub within the County and the surrounding region, with special emphasis on vehicular travel. The roadways include NYS Routes 5, 33, 63 and 98 as well as Interstate 90.

All of the state routes are classified as minor arterials, with the exception of a stretch of Route 98 from I-90 to the intersection with Routes 5 and 63 and continuing along Route 63 eastward, which is classified as a principal arterial according to Federal Highway Administration (FHWA) standards.

The roads traverse through a variety of settings, from more rural lands in the Town of Batavia and beyond to denser, urban environments in the City of Batavia and nearby villages throughout the County. Outside of the City, the roads consist of two lanes with a gravel or asphalt shoulder for emergency pull-offs. Drainage is provided by roadside ditches. Sidewalks or bike lanes are

neither provided nor marked. Table 5.1 highlights features and characteristics of each major roadway within the study area. In some instances, characteristics vary depending upon the location along the roadway. For example speed limits change in and outside of the city boundary.

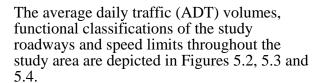
Twelve existing intersections in the study area were analyzed. Figure 5.1 and the summary below identifies the location of the intersections and their right-of-way control (i.e. traffic signal, stop sign, roundabout).

- 1. NY Route 98/Saile Drive (unsignalized)
- 2. NY Route 98/NYS Thruway-Park Road (signalized)
- 3. NY Route 98/NY Route 5 (signalized)
- 4. NY Route 98-Franklin/Pearl Street (roundabout)
- 5. NY Route 5/Ellicott Street (signalized)
- 6. NY Route 5/Clinton Street (signalized)
- 7. Ellicott Street/Cedar Street (signalized)
- 8. NY Route 5/Lewiston Road (signalized)
- 9. Lewiston Road/Veterans Memorial Drive (signalized)
- 10. NY Route 5/County Building Driveway (unsignalized)
- 11. NY Route 98/Law Street (unsignalized)
- 12. Clinton Street/7 Springs Road-Batavia Stafford Town Road (signalized)

Table 5.1: General Roadway Characteristics					
Roadway	Mileage	Lanes	Shoulder	Sidewalk	Speed Limit
Route 5	6.15	4-5	γ**	Υ*	30*-45
Route 33 ¹	3.07	2	Υ	Υ*	30*-45
Route 63 ²	4.04	2-3	Υ	Υ*	35-45
Route 98 (minor arterial)	1.78	2	Y	N	55
Route 98 (principal arterial)	2.84	2-4	N **	γ*	30*-55
Interstate 90 ³	4.84	2	Υ	N	65

- 1. Does not include overlap with Route 5 or Route 98.
- 2. Does not include overlap with Route 5.
- 3. Mileage for one direction of travel only; overall mileage is 9.68 miles.
- * Within City only
- ** Not along the entire roadway





Peak Hour Data Collection

Weekday PM (3:30pm-5:30pm) peak traffic counts were collected at the study area intersections. Data collection occurred on Tuesday, October 6, 2009 and Wednesday, October 7, 2009. The existing peak hour volumes are depicted in Figure 5.5.

Field Observations

The study intersections were observed during the peak time period to assess existing traffic operating conditions. Signal timing information was collected at the eight signalized intersections in the study area to determine peak hour phasing plans and phase durations during each interval. This information was used to support and/or calibrate capacity analysis models described in detail later in this report.

Capacity Analysis

Capacity analysis is a technique used for determining a measure of effectiveness for a section of roadway and/or intersection based on the number of vehicles during a specific time period. The measure of effectiveness used for the capacity analysis is referred to as a Level of Service (LOS). Levels of Service are calculated to provide an indication of the amount of delay that a motorist experiences while traveling along a roadway or through an intersection. Since the most amount of delay to motorists usually occurs at intersections, the capacity analysis specifically focuses on intersections.

Six Levels of Service (LOS) are defined for analysis purposes. They are assigned letter designations, from "A" to "F", with LOS "A" representing the best conditions and LOS "F" the worst. Suggested ranges of service capacity and an explanation of Levels of Service are included in the Appendix. The standard procedure for capacity analysis of signalized and unsignalized intersections is outlined in the Highway Capacity Manual (HCM 2000) published by the Transportation Research Board. Traffic analysis software, Synchro 7, which is based on procedures and methodologies contained in the HCM 2000, was used to analyze operating conditions at study area intersections.

The procedure yields a Level of Service (LOS) based on the HCM 2000 as an indicator of how well intersections operate. The roundabout at the intersection of Route 98/Pearl Street was analyzed using Sidra Intersection Software, Version 3.2 to determine capacity analysis of a roundabout at this location. The Sidra Intersection software is approved for analysis of roundabouts by the New York State Department of Transportation.

Existing operating conditions during the peak study periods were evaluated to determine a basis for comparison with the projected future conditions. Existing operating conditions were documented in the field and modeled using traffic analysis software. The traffic analysis models were calibrated based on the actual field observations. All capacity analysis calculations are included in the Appendix.

Capacity results/level of service for existing conditions are shown in Figure 5.6. All of the intersections in the study area operate at level of service "C" or better on all approaches with the exception of the following three



intersections: Route 5/Route 63, Route 63/ Cedar Street, and Route 98/Saile Drive. These three intersections are discussed in greater detail below.

Route 5 / Route 63

The results show that all approaches of the intersection operate at levels of service (LOS) "C" or better, except for the westbound approach, which operates at LOS "D" during the PM peak hour.

Route 63 / Cedar Street

The results show that the Cedar Street approach to Route 63 currently operates at LOS "D" during the PM peak hour. LOS "D" is characterized by longer delays for motorists on the unsignalized approach to a busy arterial highway such as Route 63.

Route 98 / Saile Drive

The results show that the Saile Drive approach to Route 98 currently operates at LOS "F" during the PM peak hour with long delays. The poor LOS experienced on Saile Drive is a result of insufficient capacity on the side road and high traffic volumes, especially turning movements, on all three approaches to the intersection.



The convergence of four major arterials within Batavia creates a hub and spoke system with fluctuating traffic volumes.

Vehicular Accident Investigation

Accident reports for the intersections within the study area were investigated to assess the safety history. The crashes included in the current review collectively covered a five-year time period from January 2004 through December 2008. The data was provided by the New York State Department of Transportation.

A total of 172 crashes were documented during the investigation period (5 years). A large portion of the crashes occurred at the signalized intersections of Main Street (NYS Route 5) with NYS Route 98 and NYS Route 63.

The severity of the 172 documented crashes is broken down as follows:

- 40 Reportable Injury
- 39 Reportable Property Damage + Injury
- 72 Reportable Property Damage Only
- 21 Non Reportable

Reportable crashes with injury and property damage are defined as damage to one person's property in the amount of \$1,001 or more. The non-reportable crashes are \$1,000 or less of damage.

Maps showing accident locations and density of crashes are included in the appendix. Twenty one crashes were non-reportable, meaning that the severity of the collision resulted in property damage of less than \$1,000 and were therefore not included in the accident rate calculations. Also, 32 crashes that did not occur at intersections were excluded from the accident rate calculations. Accident rates were computed at all study intersections and compared with the NYSDOT average accident rates for similar intersections, as summarized in Table 5.2.



Intersection rates are listed as crashes per million entering vehicles (Acc/MEV).

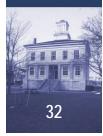
As shown in the table, eight of the 12 study intersections have accident rates higher than the state-wide average accident rates for similar intersections. A majority of the crashes at these intersections are rear end (37), followed by right angle (17), left turn (17), and pedestrian/bicycle crashes (8), respectively.

Due to the fact that the intersection crashes at eight study intersections have rates that

exceed state averages, further investigation was performed to identify high incident areas and possible trends/causes of the crashes. The results of the investigation are discussed in the following section.

Table 5.2 contains a summary of crash data assessed. The majority of intersections had a relatively low frequency of crashes (less than 10 over the five-year time period assessed). Three intersections exhibited greater than 10 crashes and accident rates that exceeded the statewide average rate over the assessment period. They are discussed in detail below.

Table 5.2: Intersection Accident Rates					
Intersection	Number of Crashes	Actual Project Rate Acc/MEV	NYSDOT Average Rate Acc/MEV		
1. NY Route 98/Saile Drive (unsignalized)	7	0.85	0.10		
2. NY Route 98/NYS Thruway- Park Road (signalized)	12	0.38	0.19		
3. NY Route 98/NY Route 5 (signalized)	50	0.79	0.12		
4. NY Route 98-Franklin/Pearl Street (roundabout)	5	0.27	0.12		
5. NY Route 5/Ellicott Street (signalized)	10	0.20	0.12		
6. NY Route 5/Clinton Street (signalized)	9	0.30	0.12		
7. Ellicott Street/Cedar Street (signalized)	8	0.45	0.12		
8. NY Route 5/Lewiston Road (signalized)	5	0.11	0.12		
9. Lewiston Road/Veterans Memorial Drive (signalized)	2	0.07	0.12		
10. NY Route 5/County Building Driveway (unsignalized)	0	0.00	0.07		
11. NY Route 98/Law Street (unsignalized)	8	0.62	0.34		
12. Clinton Street/7 Springs Road (signalized)	3	0.19	0.34		



#2: NY Route 98/NYS Thruway-Park Road

A total of twelve (12) crashes were documented during the investigation period (5 years). The calculated accident rate is 2 times greater than the average reportable statewide accident rates. The majority of crashes involved rear-end (4), right angle (3), and left turn (2) collisions. The remaining crashes were categorized as overtaking (1) and unknown (2).

#3: NY Route 98/NY Route 5

A total of fifty (50) crashes were documented during the investigation period (5 years). The calculated accident rate is 6.6 times greater than the average reportable statewide accident rates. The majority of crashes involved rearend (16), left turn (7), and right angle (5) collisions. The remaining crashes were categorized as sideswipe (1) and head on (1).

#5: NY Route 5/Ellicott Street

A total of ten (10) crashes were documented during the investigation period (5 years). The calculated accident rate is 1.7 times greater than the average reportable statewide accident rates. The majority of crashes involved rearend (3) and right angle (3) collisions. The remaining crashes were categorized as overtaking (1) and unknown (3).

Pedestrian and Bicycle Crashes

As shown in Figure 5.7, the study area has experienced an unusually high number of bicycle and pedestrian crashes between 2005 and 2008. The crashes were mostly located on the state routes through the study area.

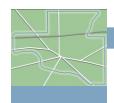
Several factors may be contributing to the these conditions, including:

- Higher concentration of persons that depend on bicycle and walking to access work and/or goods and services.
- Lack of dedicated bicycle facilities or adequate lane widths to accommodate bicycle access.
- Insufficient alternate or parallel streets to accommodate bike access.

The accident data needs to be considered in context. The pedestrian and bicycle crash density shown in the figures consider only crash counts. It does not reflect the level of bicycle or pedestrian use or the relative risk to the individual bicyclist or pedestrian. High crash density may suggest that improved bicycle and pedestrian accommodations are needed and/or may reflect high bicycle and pedestrian volumes. However, it may simply reflect poor decision making by pedestrians, bicyclists, and motorists. It is likely that the roadway environment, bicycle and pedestrian traffic volumes, and human factors each play a role.

High crash density should be considered a prompt for further investigation to determine if low-cost safety improvements including engineering, education, enforcement, and other countermeasures would help improve safety. Focused road safety assessments may be appropriate for the areas that exhibit a high crash density. The *Safety Assessment Guidelines* published by the New York State Metropolitan Planning Association Organization in October 2008 should be consulted for further guidance.





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B. TRANSPORTATION MODEL AND FUTURE CONDITIONS

In order to assess the current transportation network's current function and project future conditions, a transportation model (Travel Demand Model or TDM) was developed for the study area.



Although Main Street was recently reconstructed and improved, no dedicated bicycle facilities exist. Pedestrians and bicyclists share the sidewalk or bicyclists utilize shoulders, where available.

The model combined existing traffic data (traffic volumes and turning movements and counts) with current household and employment data from each of the transportation analysis zones (TAZ) to determine a volume-to-capacity ratio for roadways throughout the study area. The TAZs were based on US Census block groups to enable a more focused analysis. They are shown in the graphic on page 35. The model was created to depict the current conditions of the street network and estimate future conditions based on anticipated growth in the area out to 2035. Additional information about the model's development and analysis are located in Appendix B.

Based on the current conditions in the corridor, including existing employment levels and land uses, the volume-to-capacity ratios indicated that all of the roadways analyzed are functioning appropriately. None of the major roads exhibited congested or near capacity conditions. The results of the existing conditions model are shown in Figure 5.9.

Future Conditions & Functionality

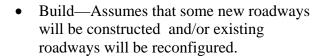
Using 2035 as the future planning horizon, which was consistent Genesee Transportation Councils' Long Range Transportation Plan, future traffic conditions were examined based on the potential full build-out of the study area (Figure 5.10). Projections for future households and future employment were developed for each TAZ in the study area. Household projections were determined based on the existing zoning regulations for the City and Town of Batavia and a planning-level build-out analysis. Employment figures were also generated based on existing zoning and the build-out analysis. Those figures were further refined using general land development (8,000 square feet/acre) and work area assumptions (1,000 square feet/ employee) consistent with development in similar locations throughout the region.

This information was used to estimate future trip generation in each TAZ, which was incorporated into the transportation model developed for the study area.

Future traffic conditions were modeled based on two conditions:

 No-build— Assumes that no new roads or will be constructed and/or no significant changes to the existing road network will take place.





No-Build Scenario (Figure 5.11)

In the no-build scenario, six intersections in the study area will continue to operate at a level of service (LOS) of "C" or better on all approaches in 2035 future during the PM peak hour when traffic is typically at its highest level. The intersection capacity results for the remaining seven intersections analyzed showed a change in LOS by 2035 The results are discussed in greater detail below.

Route 5 / Route 63 (Lewiston Road)

The results showed that all approaches of the intersection will operate at LOS "C" or better with the exception of the westbound

approach, which is projected to operate at LOS "D" during the PM peak hour under 2035 future no-build conditions.

Route 98 / Law Street

The Law Street approach to Route 98 is projected to operate at LOS "E". LOS "E" is characteristic of longer delays experienced by motorists on the unsignalized approach to a busy arterial highway such as Route 98.

Route 5 / Ellicott Street (Route 63)

The north-westbound (Route 63) approach of the intersection is projected to operate at LOS "E" during the PM peak hour under 2035 future no-build conditions. This decrease in LOS can likely be mitigated with signal timing adjustments to improve the LOS to "C" during the PM peak hour. All other approaches of the intersection are projected to

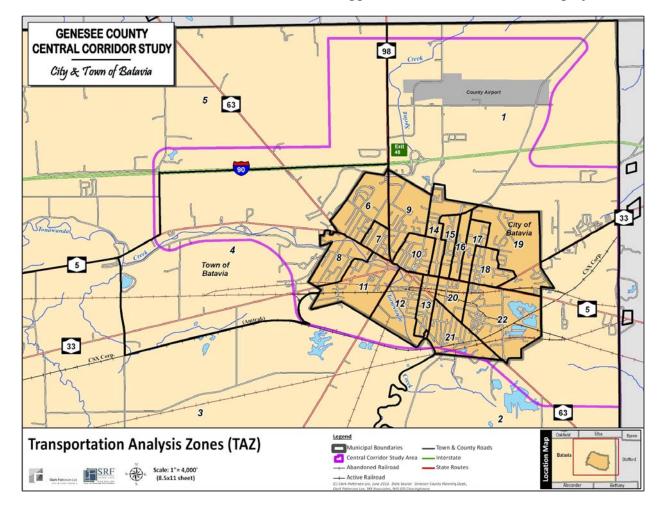
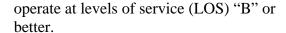




Table 5.3: Future Roadway Segment Ratings			
Roadway Segment	Rating	Notes/Comments	
1 - Hawley Drive Extension	В	 Relieve pressure on Saile Drive Alternative route to/from adjacent neighborhoods Serve an area generator 	
2 – Agri-Business Park	С	 Sub-area oriented Not anticipated to have a significant impact on the larger system Should be addressed as a site design consideration 	
3 – Richmond Avenue Extension	В	 Serves multi-purpose trips Expands street network/grid Establishes better local connection Provides relief for Main Street Road 	
4 – Veteran's Memorial Extension	A	 Provides "outer loop" around City's central hub Alternate route for commercial area along Veteran's Memorial Drive 	
5 – Lewiston Connector	A	See comments from # 4	
6 – Pratt Road Extension	С		
7 – Donahue Road Extension & 9 - New Bridge	A	 Expands north-south connections, provides direct access to signals and relieves main street volumes Relieves heavy volumes on Main Street 	
8 – Edgewood Drive Connector	С	 Does not provide much relief or offer alternative route Localized benefits only 	
10 – Arena Parkway Extension	С	Allows auxiliary route to the thruway	
11 – Neighborhood Connector	В	 Provides opportunity for expanded street grid Would allow future residential development Provides a direct connection between existing and future residential neighborhoods 	

Rating Legend: $A = High Value Improvement \longrightarrow C = Low Value Improvement$



Route 63 / Cedar Street

The Cedar Street approach to Route 63 is projected to operate at LOS "E" under 2035 future no-build conditions during the PM peak hour. LOS "E" is characteristic of longer delays experienced by motorists on the unsignalized approach to a busy arterial highway such as Route 63.

Route 98 / Saile Drive

The westbound approach is projected to operate at LOS "F" during the PM peak hour under 2035 future no-build conditions. The significant decrease in LOS projected is likely a result of the high traffic volumes generated by the four proposed Planned Business Development parcels totaling 600 acres located proximately to Saile Drive. All other

approaches of the intersection are projected to operate at LOS "A".

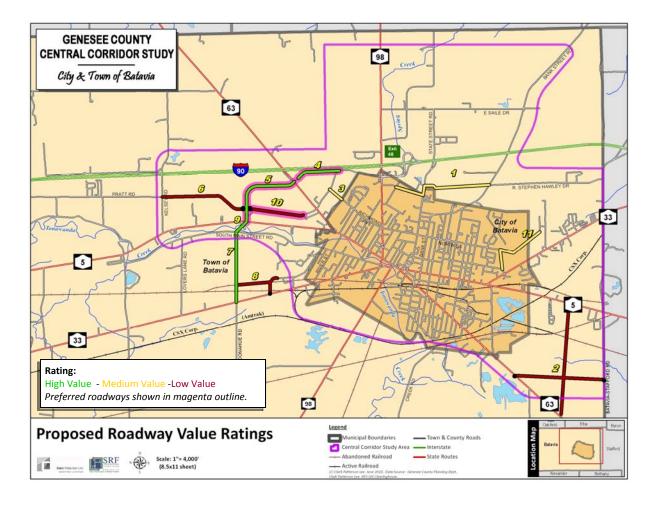
Route 98 / Park Road

All approaches of the intersection are projected to operate with long delays. The westbound, northbound and southbound approaches are projected to operate at LOS "F" during the PM peak hour under 2035 future no-build conditions.

Route 5 / Route 98

Under the future conditions, the eastbound and northbound approaches are projected to operate at LOS "D" and the southbound approach is projected to operate at LOS "F" with long delays during the PM peak hour.

The poor LOS experienced on Route 98 between Saile Drive and Route 5 is a result of insufficient capacity on Route 98 due to the





future traffic volumes generated by the proposed four Planned Business Development (600 acres) parcels located opposite to Saile Drive.

With the existing road network, the future conditions model projected noticeable volume increases in certain sections of the study area, with some segments reaching levels classified as "near capacity" or "congested." (see Figure 5.10) Future traffic conditions of the existing road network were especially impacted on Route 98 between West Saile Drive and the overlap with Routes 5/33/63.

Build Scenario (Figure 5.12)

The future no-build model results suggested that some combination of improvements will be needed to address current and future deficiencies in the transportation system.

The study relied upon the Town's Comprehensive Plan and the planning team's input to develop a list of potential new road segments to include in a future build option. The Town's Comprehensive Plan identified several key road segments to potentially alleviate traffic congestion and/or achieve the community's land use and economic development priorities.

In addition, other potential connections that could positively impact the transportation system were considered. In total, 11 potential new road segments were identified within the study area. Figure 5.13 depicts the potential future roadway connections.

Potential new road segments were reviewed and rated based on their potential impact on current and projected future transportation conditions. The road segments were rated from A (high value) to C (low value) and included numbering to demonstrate priority within a particular letter category. The ratings for each potential segment and brief description are included in Table 5.3 on page 37.

Four future scenarios were developed and are discussed in detail in Section 6. The scenarios incorporated various combinations of the new roadway segments that presented the greatest potential to improve the study area's traffic capacity and operational conditions.

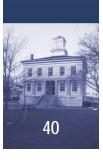
The traffic conditions analyzed in the model only addressed vehicular movements. However, the indirect impacts to pedestrian and bicycle access can be estimated to some extent from the results of the analysis.

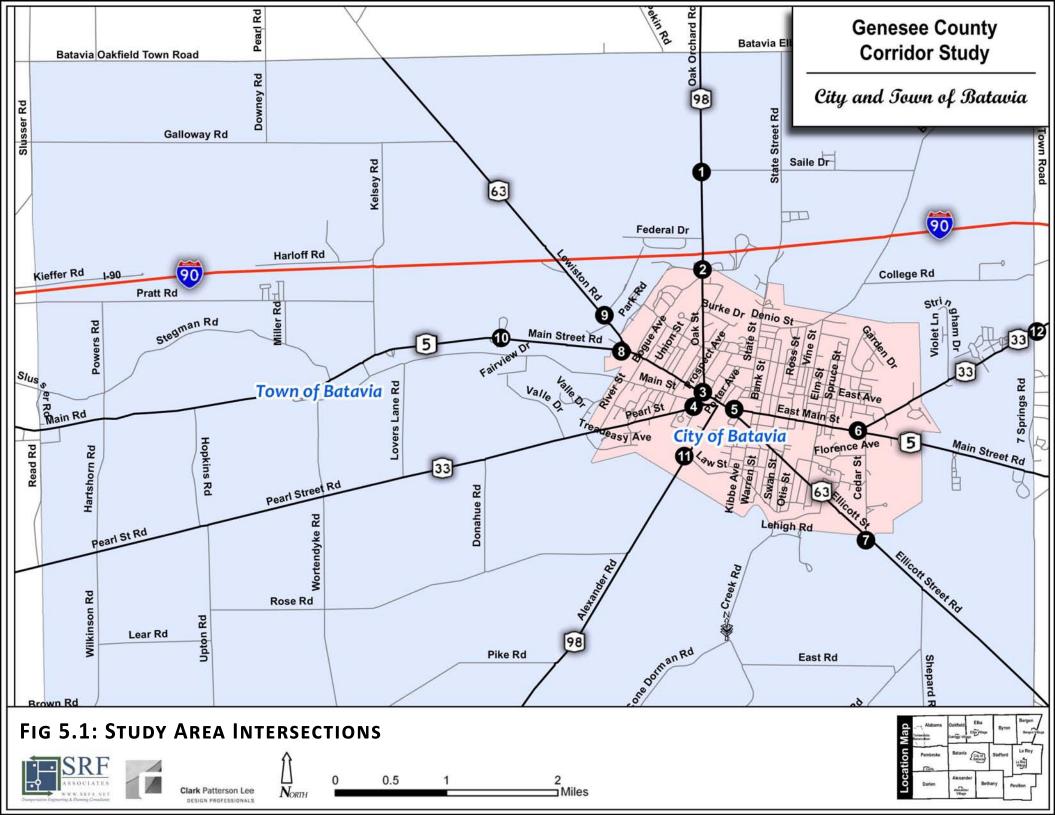
The traffic from the new zone will impact Route 98 intersections at Saile Drive, Park Road, and Route 5. Possible improvements at these intersections are discussed in detail in the proposed concept plan section. This includes a possible traffic signal or roundabout at the Route 98/Saile Drive intersection and a roundabout at the Route 98 / Park Road intersection.

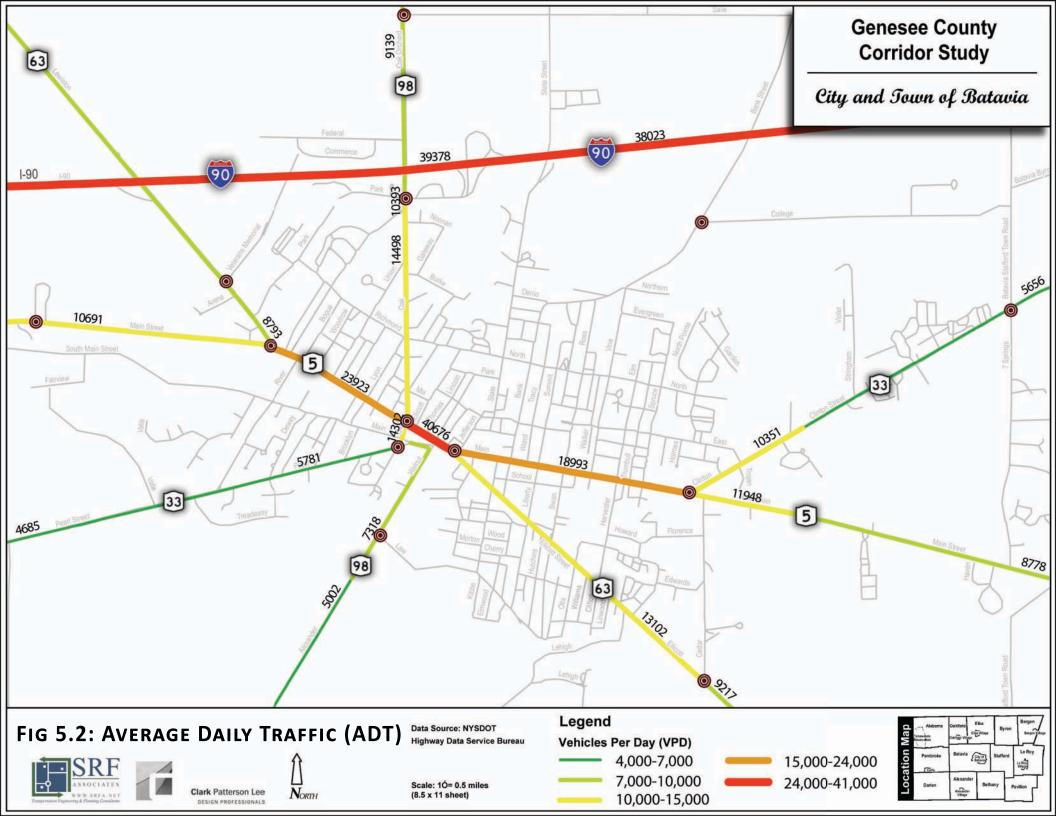
Based on a review of the roadway network under and the TransCAD output, it was determined that only three intersections will be impacted based on the new roadway connections: Route 5/County Building, Route 5/Route 63, and Veterans Memorial Dr./ Route 63. Therefore, the analysis was limited to these three intersections in the study area. The intersection capacity results for the Scenario 1 conditions are shown in Figure 5.12, "Full Development Conditions Build Scenario". The future new road connections under Scenario 1 will improve the traffic operation at the Route 5/Route 63 (Lewiston Road) intersection.

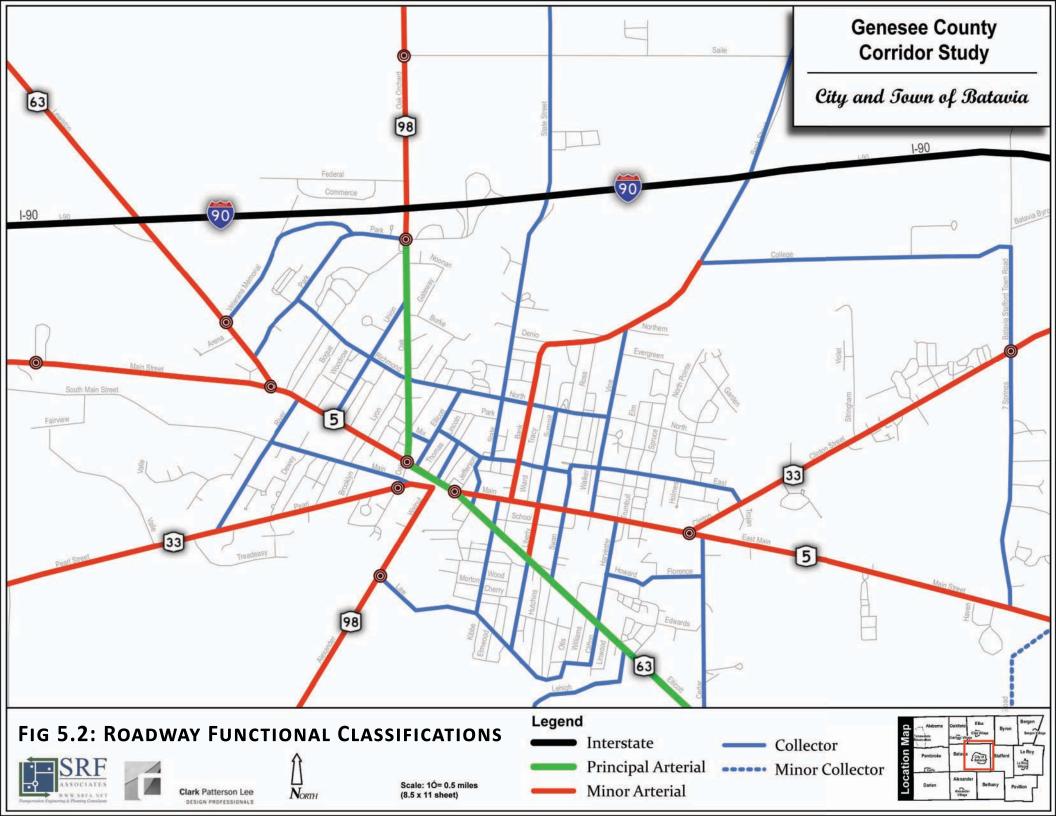


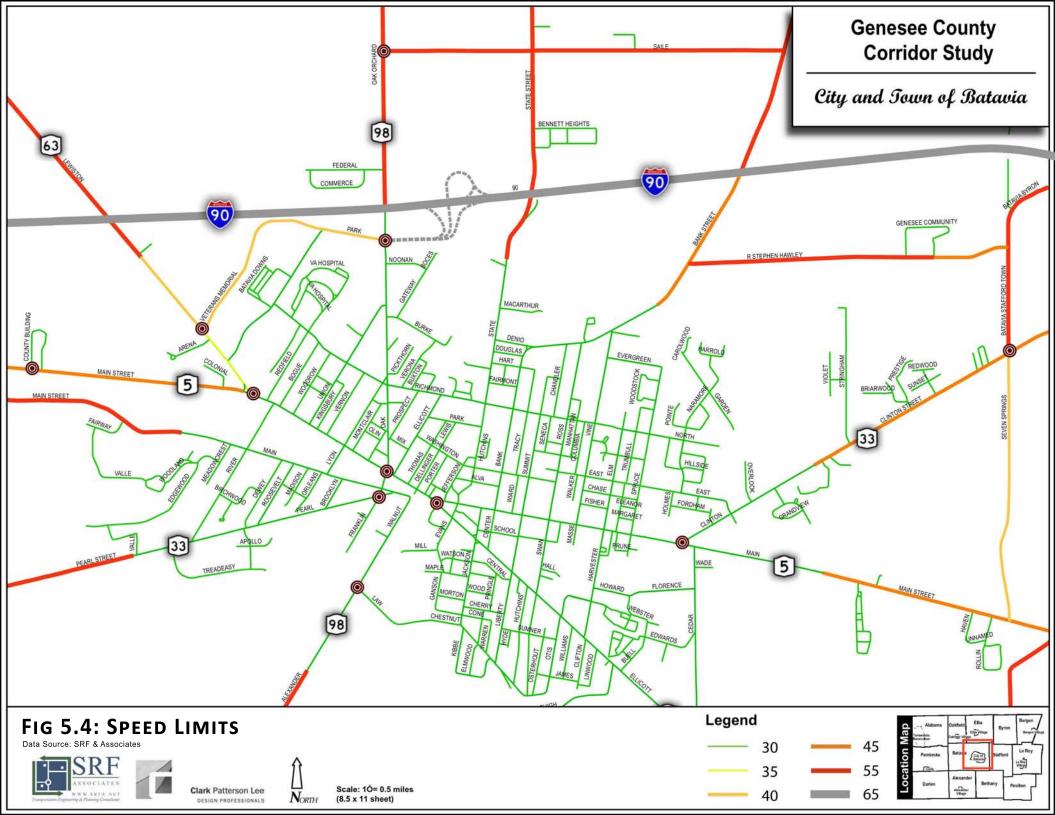
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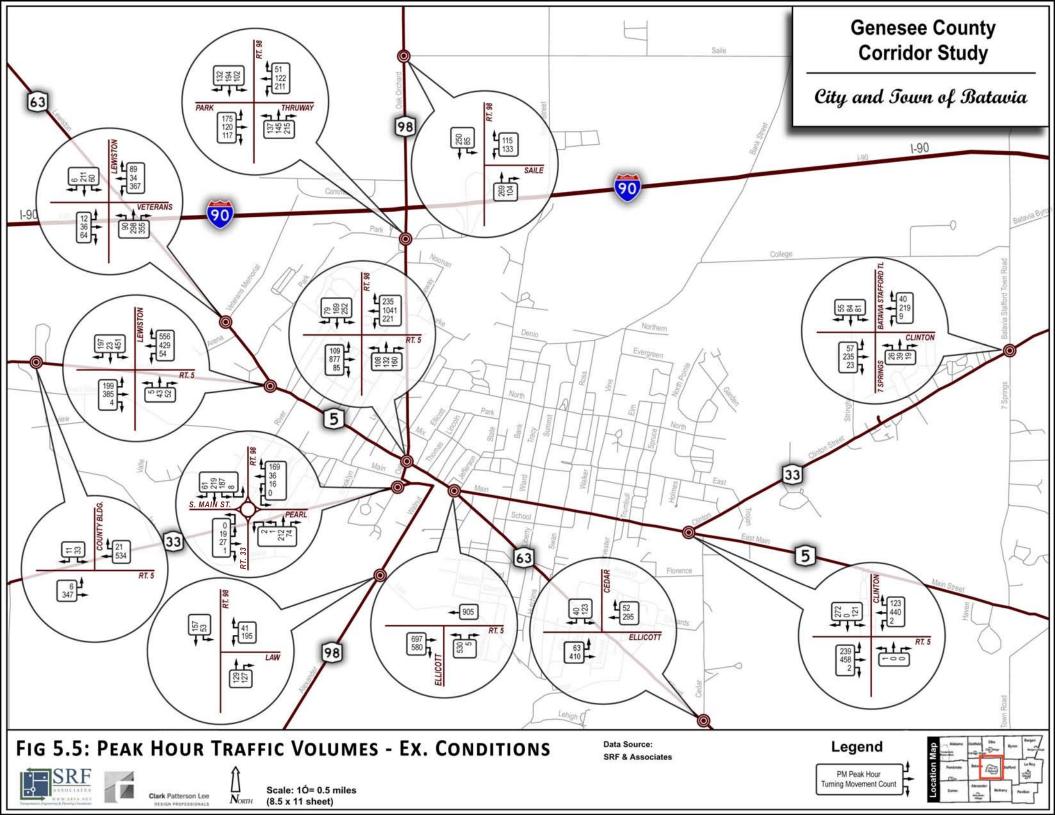


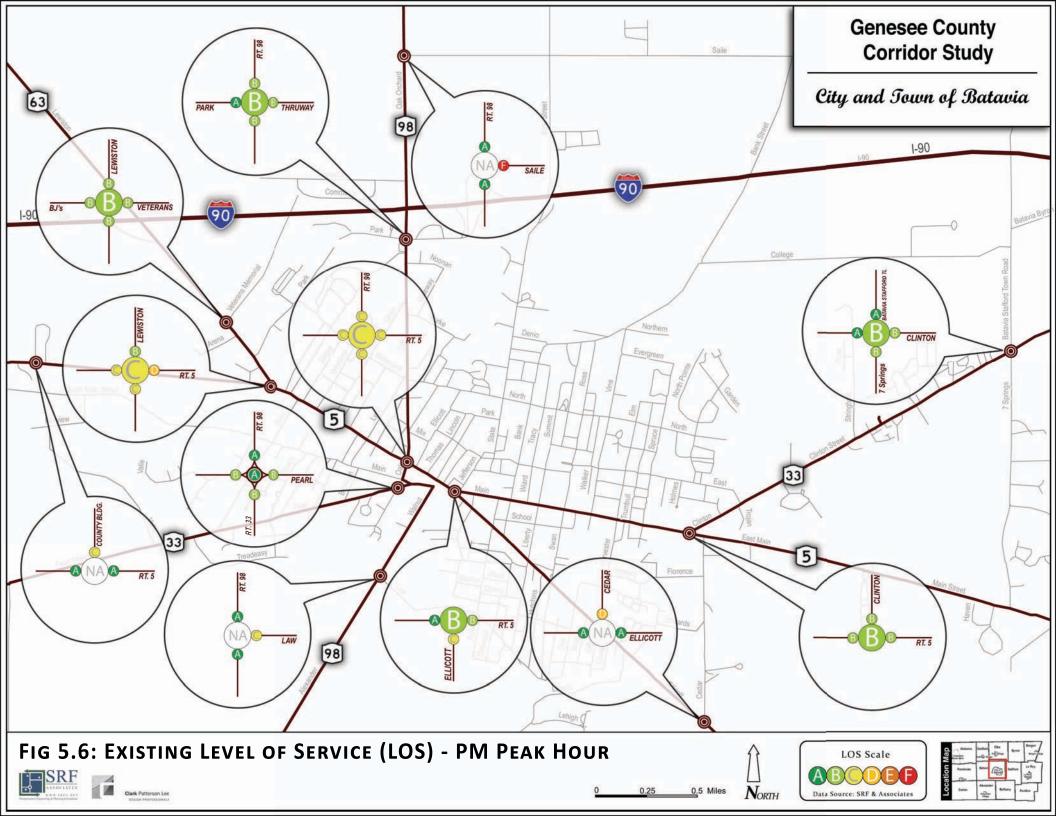


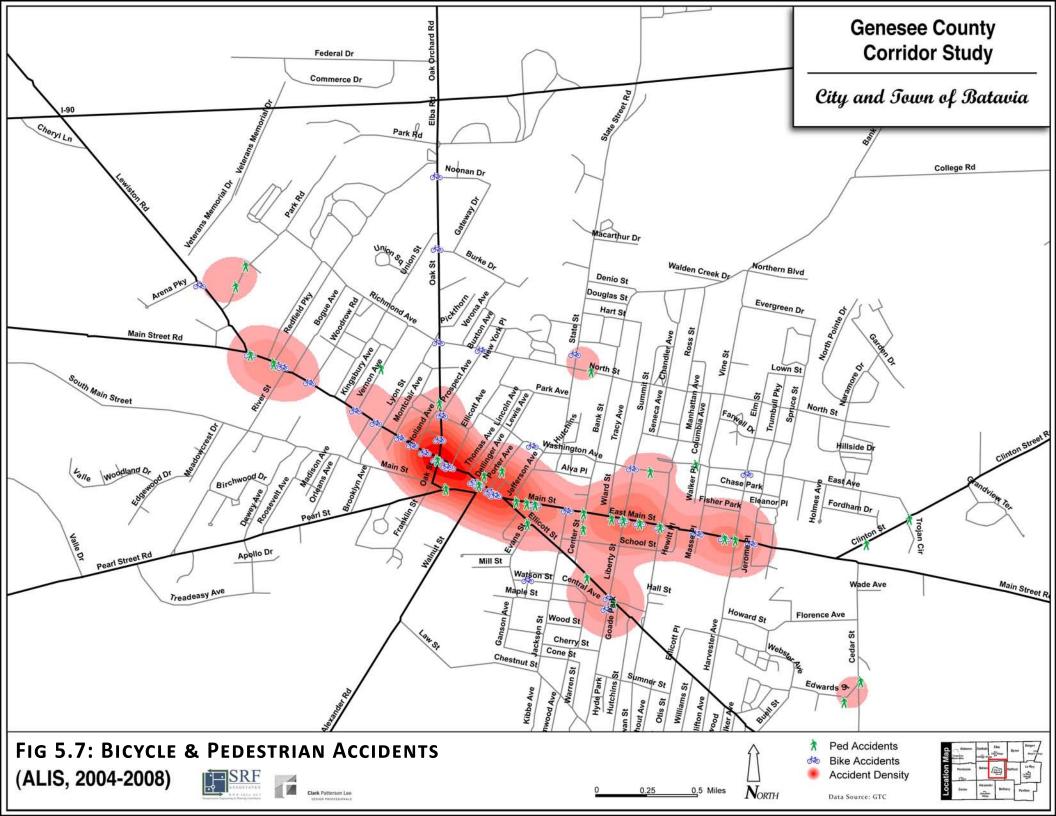


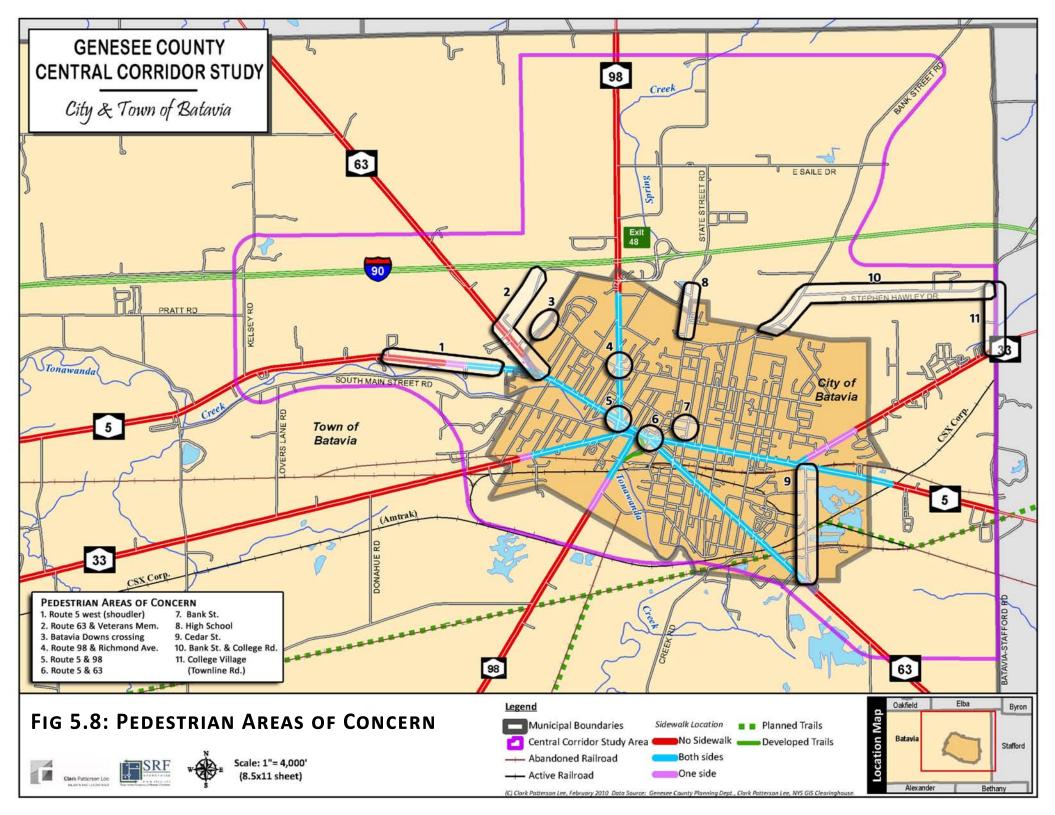


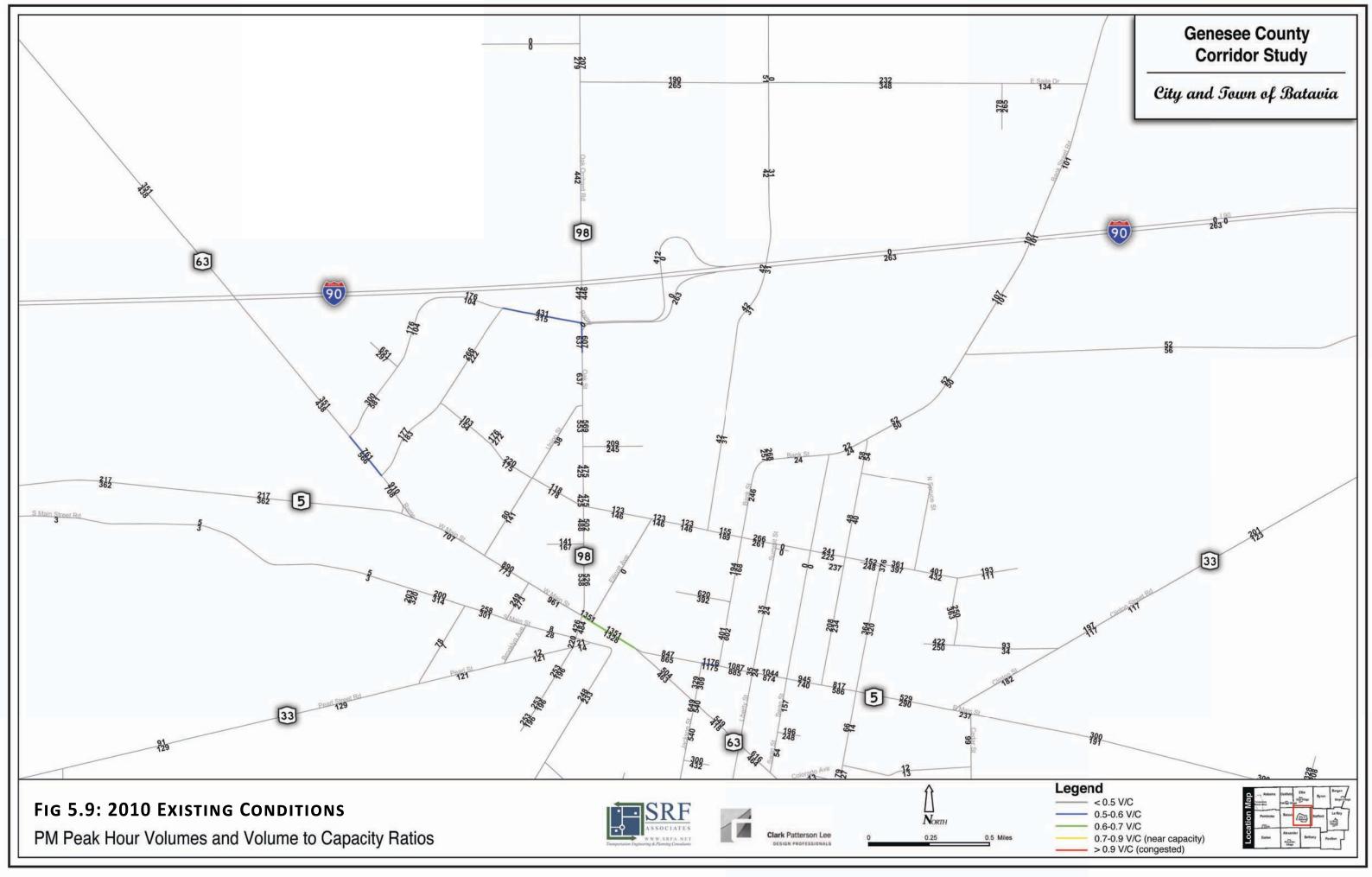


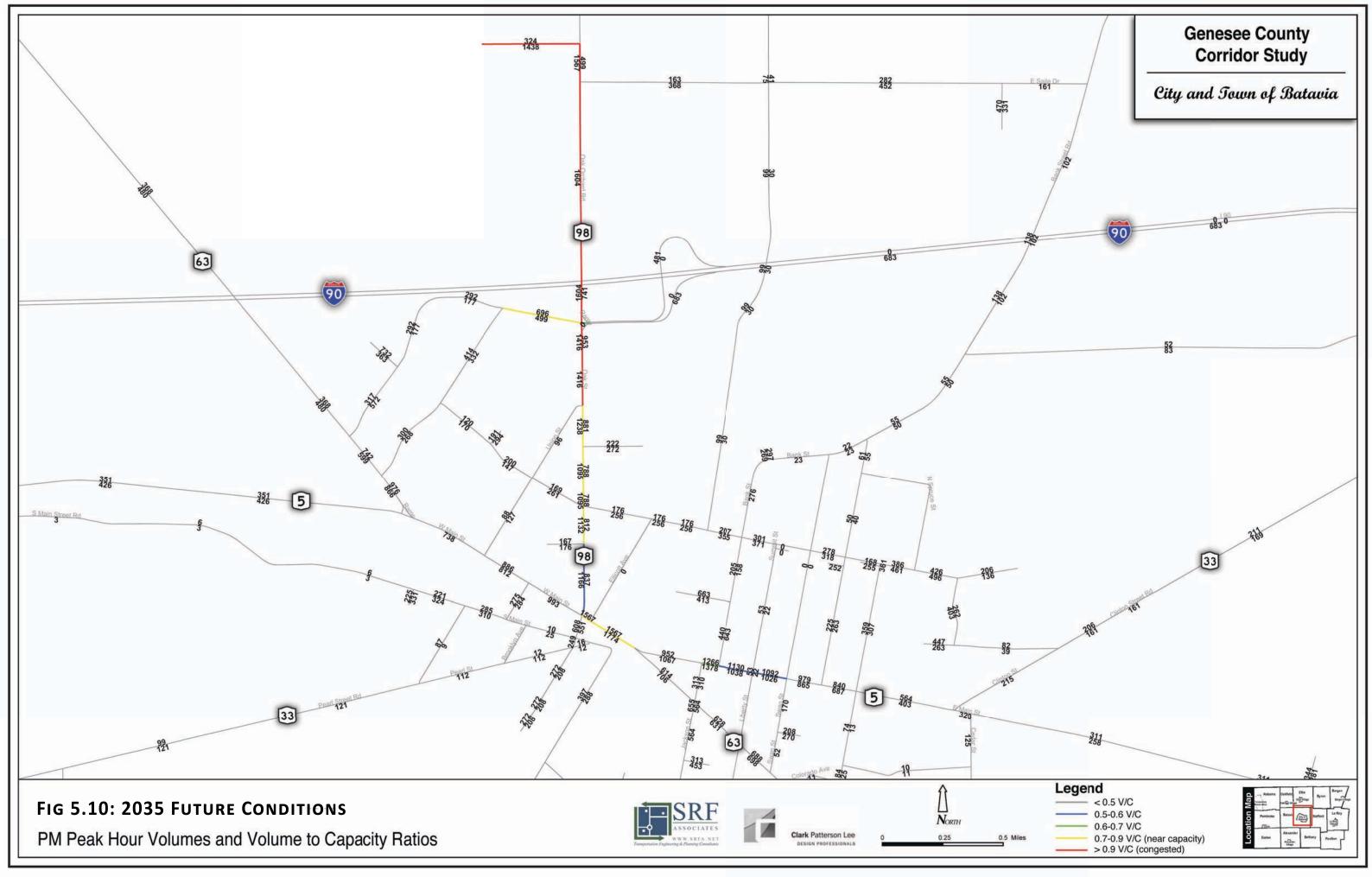


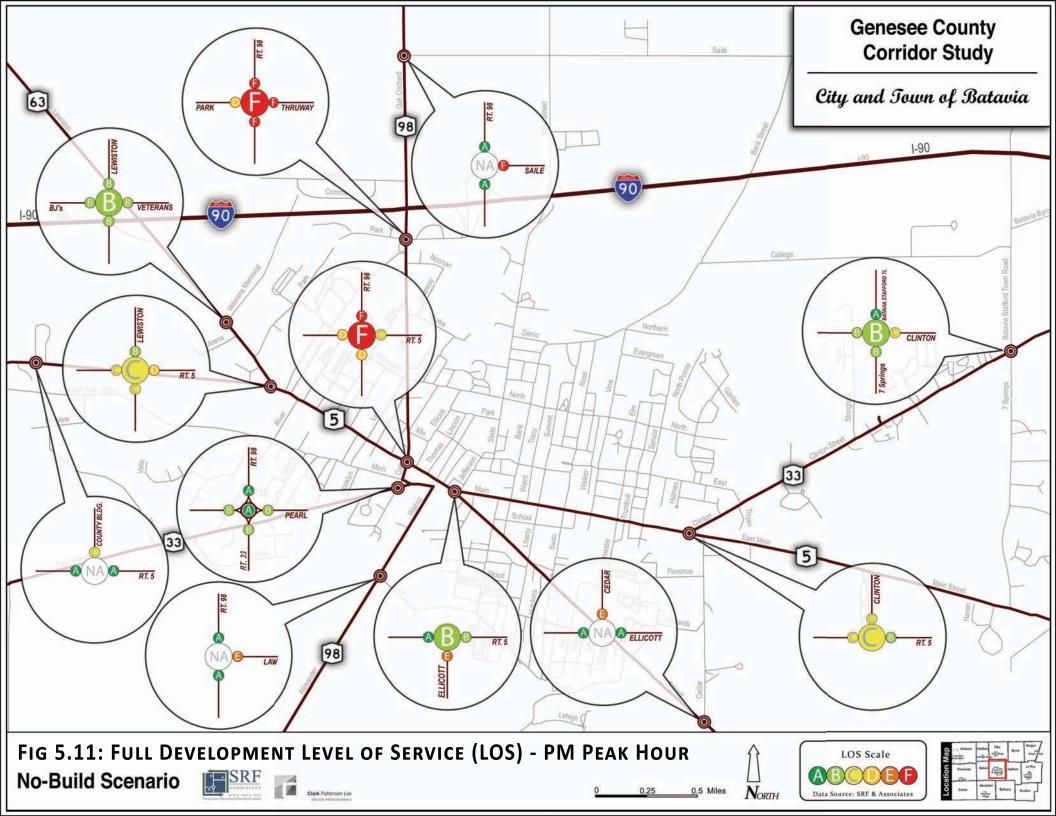


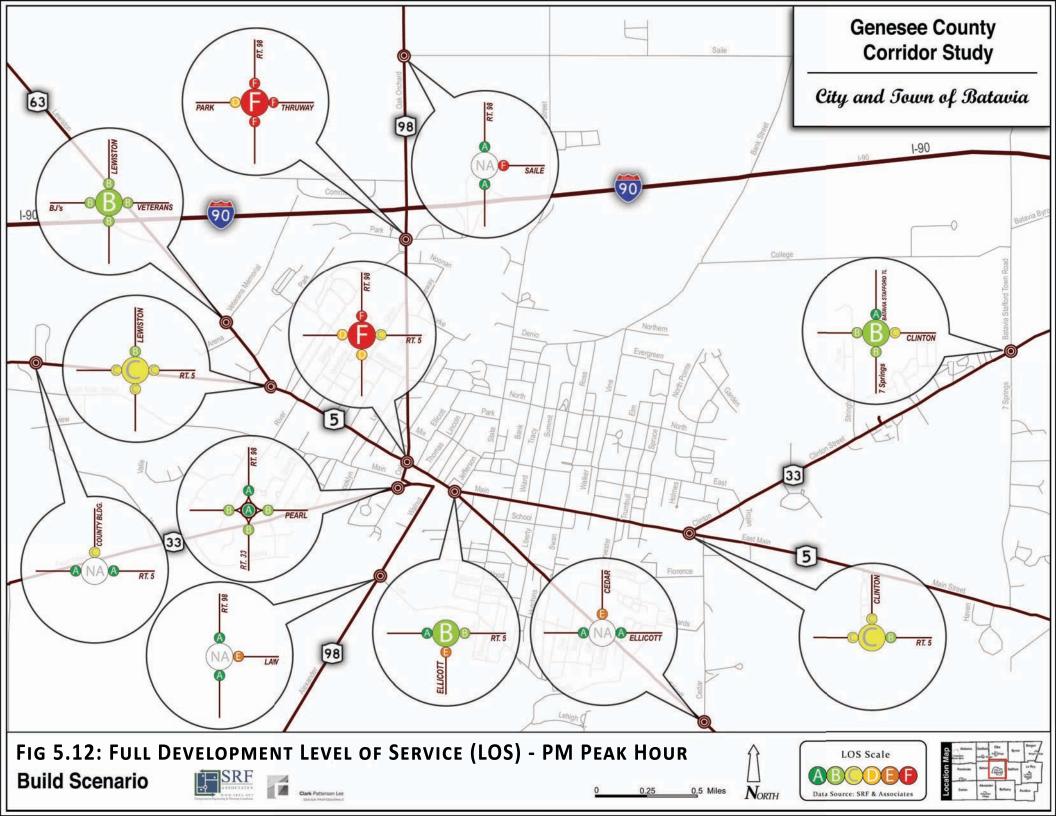


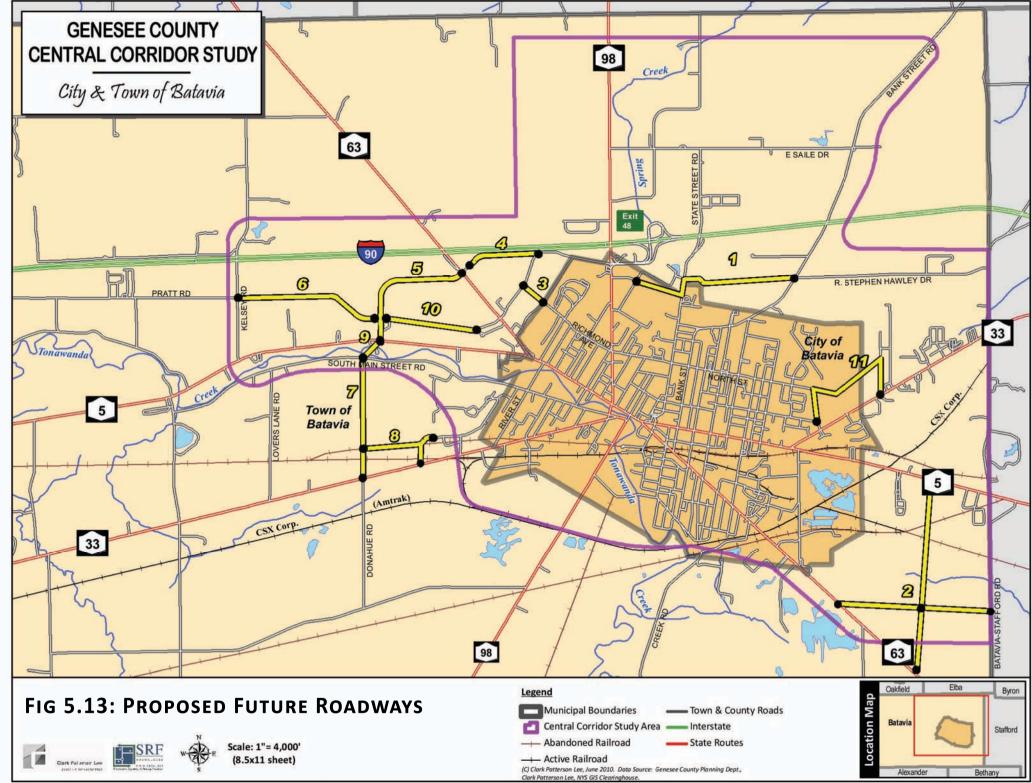












TRANSPORTATION SCENARIOS

Transportation scenarios were developed to examine the potential impacts of roadway improvements on future traffic volumes and service levels. The goal of the analysis was to determine which scenario would maintain/improve service levels, provide greater operational efficiency, and support the community's economic development goals.

The analysis and related recommendations provide both municipalities with guidance in for future transportation capital improvement planning and investment decisions.

The transportation model described in the previous section analyzed volumes and capacity of the existing roadways based on potential future development. In order to mitigate the transportation impacts future development may have, four scenarios were developed based on the results of the existing

traffic volume models, the build out analysis, and input from the steering committee and public. As discussed previously, the potential future new roadway segments were based largely on the recommendations contained in the Town's 2007 Comprehensive Plan.

A. SCENARIO ANALYSIS

Scenario 1 (Figure 6.1)

Scenario 1 features an extension of Veterans Memorial Drive from the Park Road/Veterans intersection to Route 63 (Road Segment #4) and continues on to Route 5 (Road Segment #5). A western extension of Arena Parkway (Road Segment #10) to connect to the new Veterans Memorial extension was also included. This configuration was selected largely because of the recent growth of retail businesses along Veterans Memorial Drive and the potential commercial growth that may occur in this area as observed in the future build-out analysis. The combination of roadways forms an alternative route around

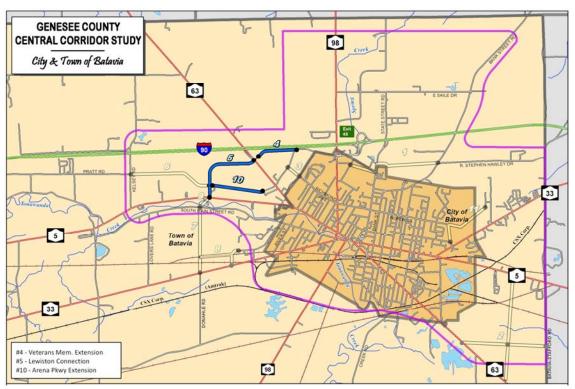


Figure 6.1 - Scenario 1



the City of Batavia. This is the preferred scenario for future transportation improvements in Batavia.

The following conclusions were drawn from the results of the traffic model:

- The scenario has localized relief and benefits only to future traffic, especially on Park Road; no study area-wide improvements were observed.
- Roadway extensions are beneficial for pedestrians crossing Park Road en route to Batavia Downs as they relieve some of the volumes on this road.
- The model assumes no traffic light at the intersection of the Veterans Memorial Extension and Route 63. With the inclusion of a signal, which is recommended, traffic would be more evenly split between Veterans Memorial Extension (Road Segment #4) and Veterans Memorial Drive.

 Out of all of the proposed roadways in this scenario, the area south of Arena Parkway Extension (Road Segment#10) is the only area currently within the Smart Growth Boundary designation.

Scenario 2 (Figure 6.2)

Building on Scenario 1, Scenario 2 added the new north-south connection between Route 33 and South Main Street Road (Road Segment #7) and a bridge between South Main Street Road and Route 5 (Road Segment #9). The existing traffic volumes at South Lyon Street and Oak Street crossing over the Creek into the City from the southwest were slightly elevated, indicating a potential choke point for traffic.

The assertion was that Road Segments #7 and #9 would alleviate potential future congestion and address volume issues. The combination of these roadways provides an outer loop around the City of Batavia, more so than in

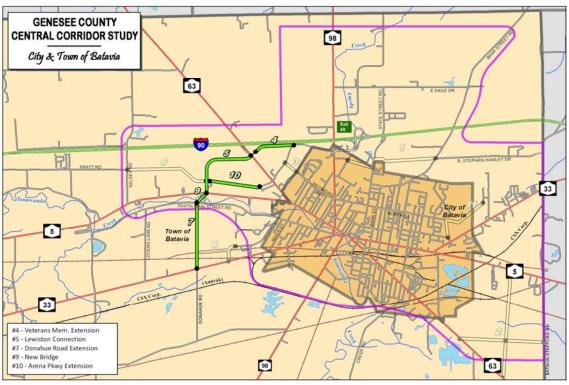


Figure 6.2 - Scenario 2



Scenario 1. The loop connects Routes 5, 33, 63 and 98.

The following conclusions were drawn from the results of the traffic model:

- Scenario 2 included the same roads as Scenario 1, therefore, the conclusions for the road extensions remain the same.
- Motorists tend to use Route 5 as the primary thoroughfare into the City; South Main Street Road and Route 33 have lower traffic volumes in comparison.

Scenario 3 (Figure 6.3)

This scenario included all of the potential future roadways in the study area with the exception of the Pratt Road Extension (Road Segment #6) and Richmond Avenue Extension (Road Segment #3).

The following conclusions were drawn from the results of the traffic model:

- There are slight decreases in traffic volumes on Route 98 and Main Street, but the impacts are negligible (reduction of 20 daily vehicles or less)
- The Hawley Drive Extension (Road Segment #1) was intended primarily to relieve traffic on Saile Drive. However, the analysis showed that the extension has very minimal impact on Saile Drive or other roads in the study area.
- The primary issue with Saile Drive is not volumes, but turning movements (i.e. truck traffic due to industrial businesses).
- If Batavia-Stafford Townline Road (from Route 33 to Hawley Drive) is identified as a truck route in the future, then the new roadway may be more beneficial to preserve quality of life in the City rather than a service improvement.

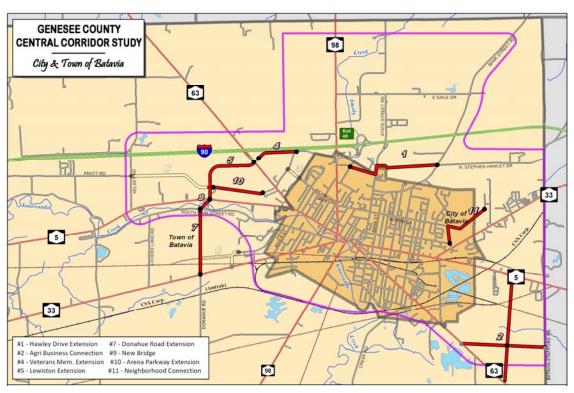


Figure 6.3 - Scenario 3



Scenario 4

Scenario 4 analyzed a single connection from Richmond Avenue to Park Road (Road Segment #3) to determine if this extension would help to alleviate traffic volumes on Main Street.

The following conclusions were drawn from the results of the traffic model:

- The extension provides a benefit to a localized area, but comes with tradeoffs. Although traffic volumes along Main Street would be reduced. The traffic shift would occur on local roads (North Street/ Richmond Avenue) which were not intended or designed to accommodate excessive through traffic.
- The traffic shifts to North Street/ Richmond Avenue were viewed as detriment, rather than a benefit, due to the roadway's residential context and the multiple schools located in the vicinity (i.e. lower speeds, more pedestrian traffic, quieter environment).
- Richmond Extension (Road Segment #3)
 may be beneficial as a pedestrian/bicycle
 linkage to provide a physical connection
 between nearby neighborhood areas and
 the retail center along Veterans Memorial.

B. Preferred Future Roadway Scenario

The scenarios analyzed by the traffic model indicated that none of them would provide a significant volume reduction to traffic volumes on Main Street between Routes 33 and 63. However, two of the scenarios (#1 and #4) would likely provide benefits to a localized area west of the Route 5 and 63 intersection by reducing traffic volume and maintaining the existing service levels. Route

98 will continue to have an increase in traffic volumes and a decrease in service by 2035 if the build-out of developable areas is fully realized.

Scenario 1, with connections between Routes 5 and 63 and Park Road, would have the greatest transportation and circulation impact, followed by land use and roadway improvements on Route 98.

The Veterans Memorial Drive Extension (Scenario #1), provides local relief by providing additional avenues for motorists and decreasing volumes on portions of Routes 5 and 63, Park Road, and Veterans Memorial Drive. With the recent growth of retail development along Veterans Memorial Drive, and the potential for additional growth, traffic improvements would be beneficial in this corridor.





The retail/commercial corridor along Veterans Memorial Drive will most likely continue to see growth in the future.



Unfortunately, the extension would lead to the loss or fragmentation of existing farmland. However, the land within the vicinity of this scenario is currently zoned for commercial and residential uses and similar uses are encouraged in the future land use plan in the Town's Comprehensive Plan.

One caveat for future development farther west of Veterans Memorial Drive is that the area is not within the County's Smart Growth Development Area. In order to receive County water for any future commercial development, the area surrounding the extension would need to be recommended to the County for inclusion into the Development Area.

The Richmond Avenue Extension (Scenario #4) would take 60 or fewer vehicles off of Route 5 daily, but this would be at the expense of increased volumes through predominantly residential areas along North Street and Richmond Avenue. Although traffic volumes are higher on Main Street, the capacity of the road is adequate and is capable of carrying the potential future volumes.

This scenario would have minimal positive vehicular impacts, but may be more beneficial as a pedestrian corridor. Currently, there is no direct, non-vehicular connection between the residential neighborhoods and the retail corridor along Veterans Memorial Drive; this connection could provide that link.

Unfortunately, volumes on the Route 98 corridor north of Main Street would see little benefit from any of the scenarios. Although some of the scenarios would result in slight improvements to traffic from the Thruway south (less than 30 cars daily), the greatest impacts would be seen north of this point.

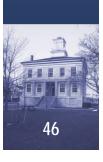


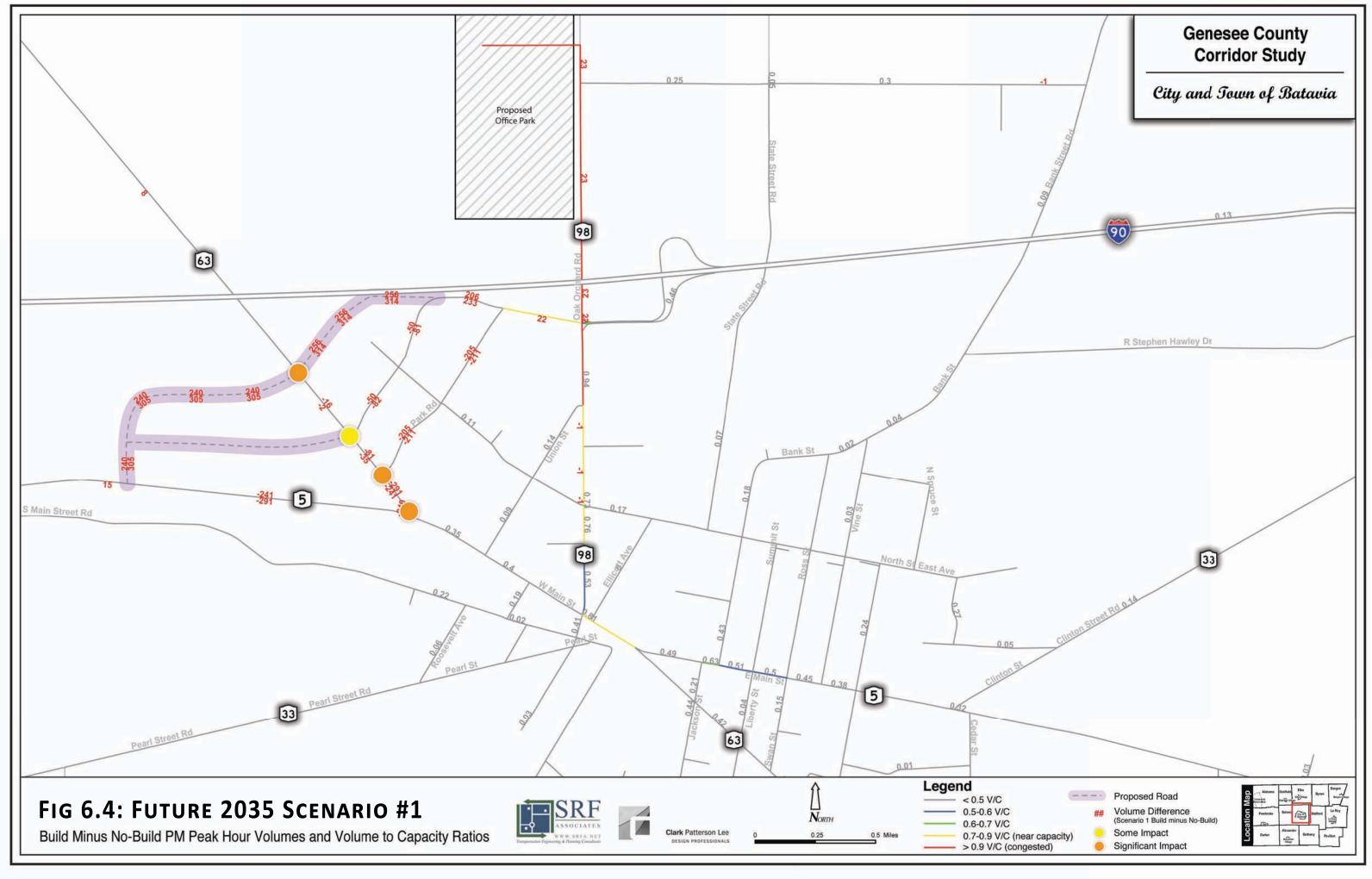
Vast amounts of developable land are found along the west side of Route 98 and are favorably zoned for development. If fully built-out by 2035, this landscape would be drastically different from the view seen here (between Interstate 90 and West Saile Drive).

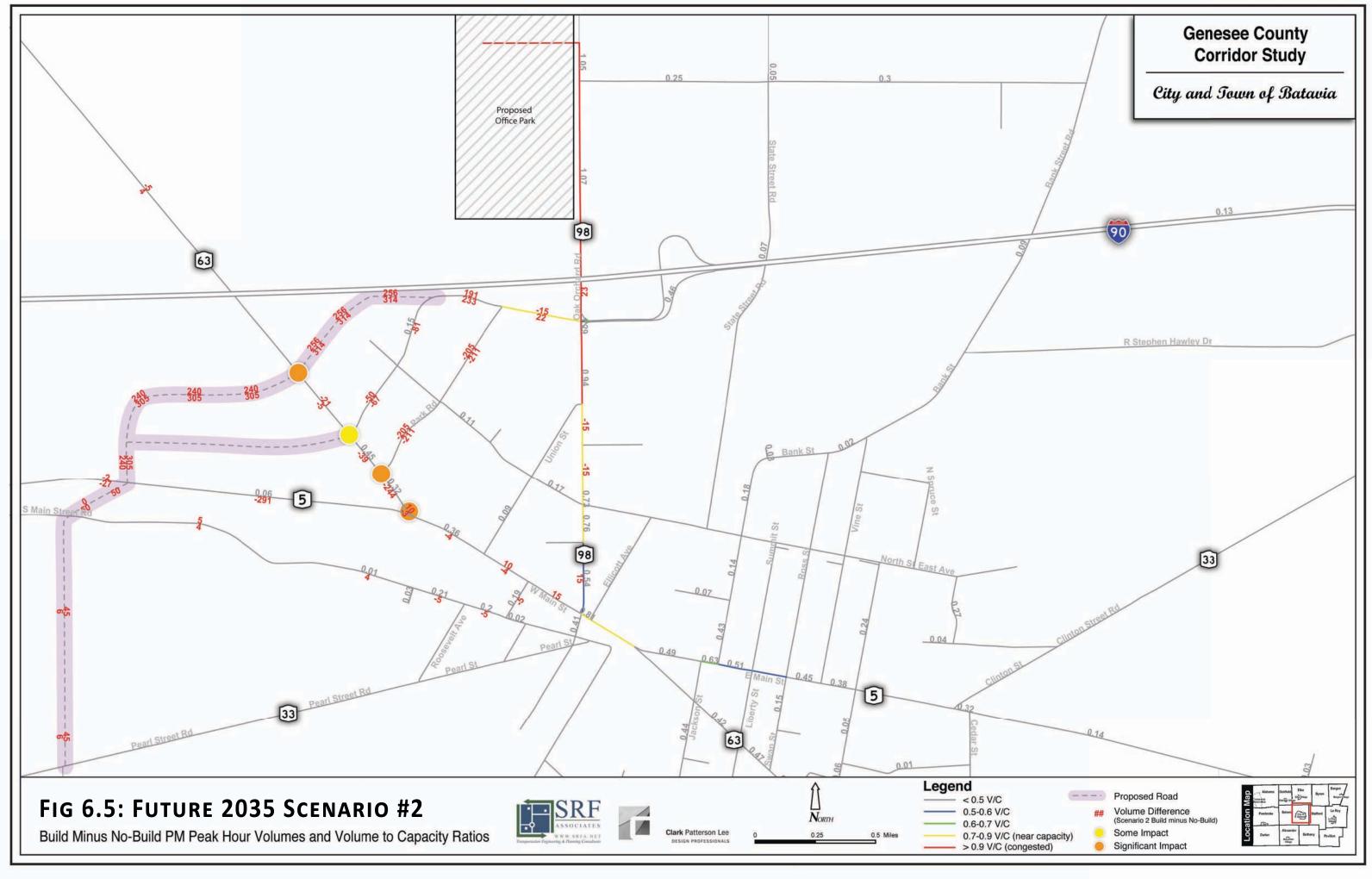
If the full build-out analysis comes to fruition, by 2035 volumes would increase significantly resulting in traffic two to four times greater than the existing volumes. The preferred option for preventing congestion and maintaining adequate service levels on Route 98 would be a combination of practical and sustainable land development and strategic physical roadway improvements.

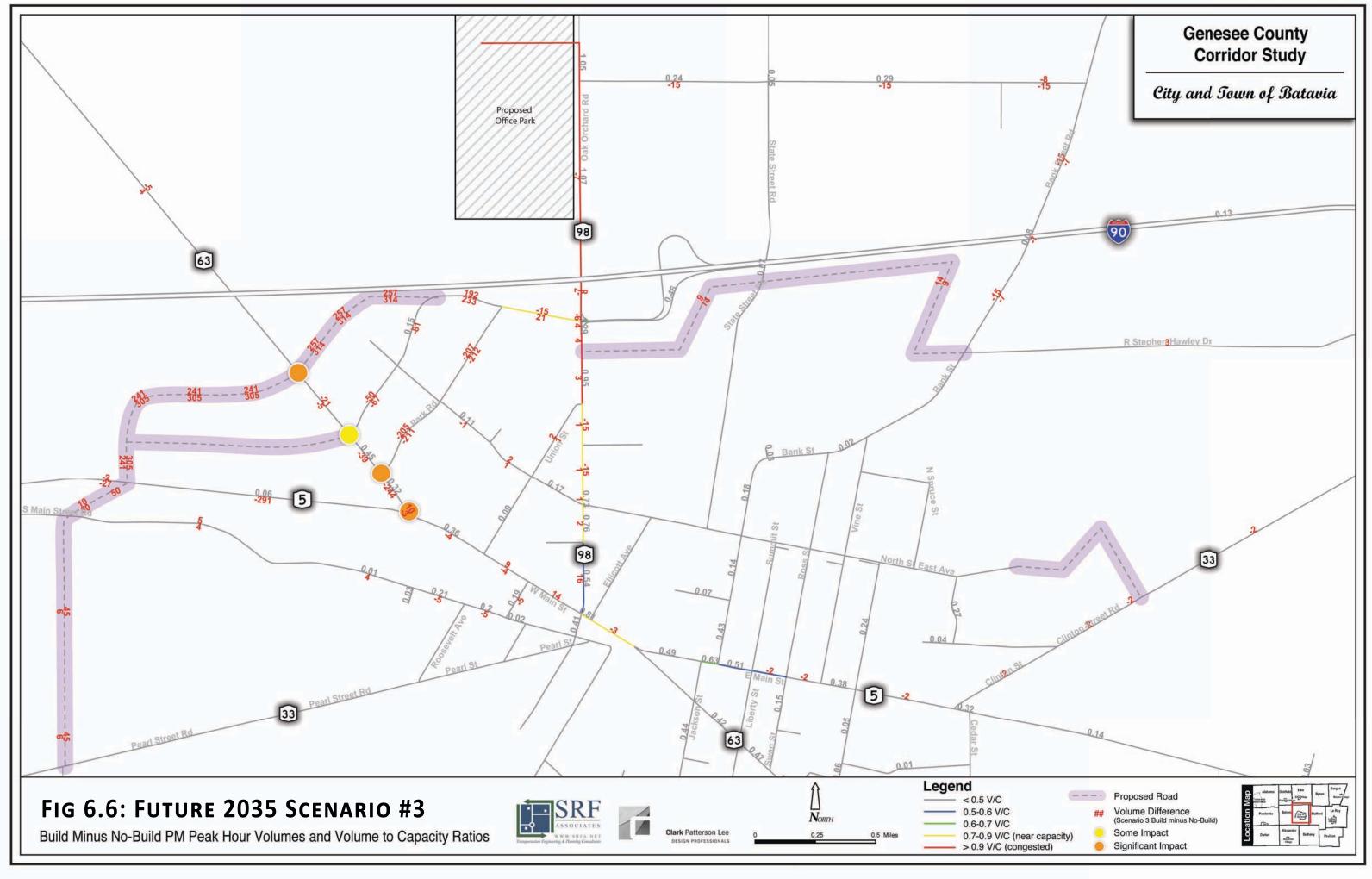


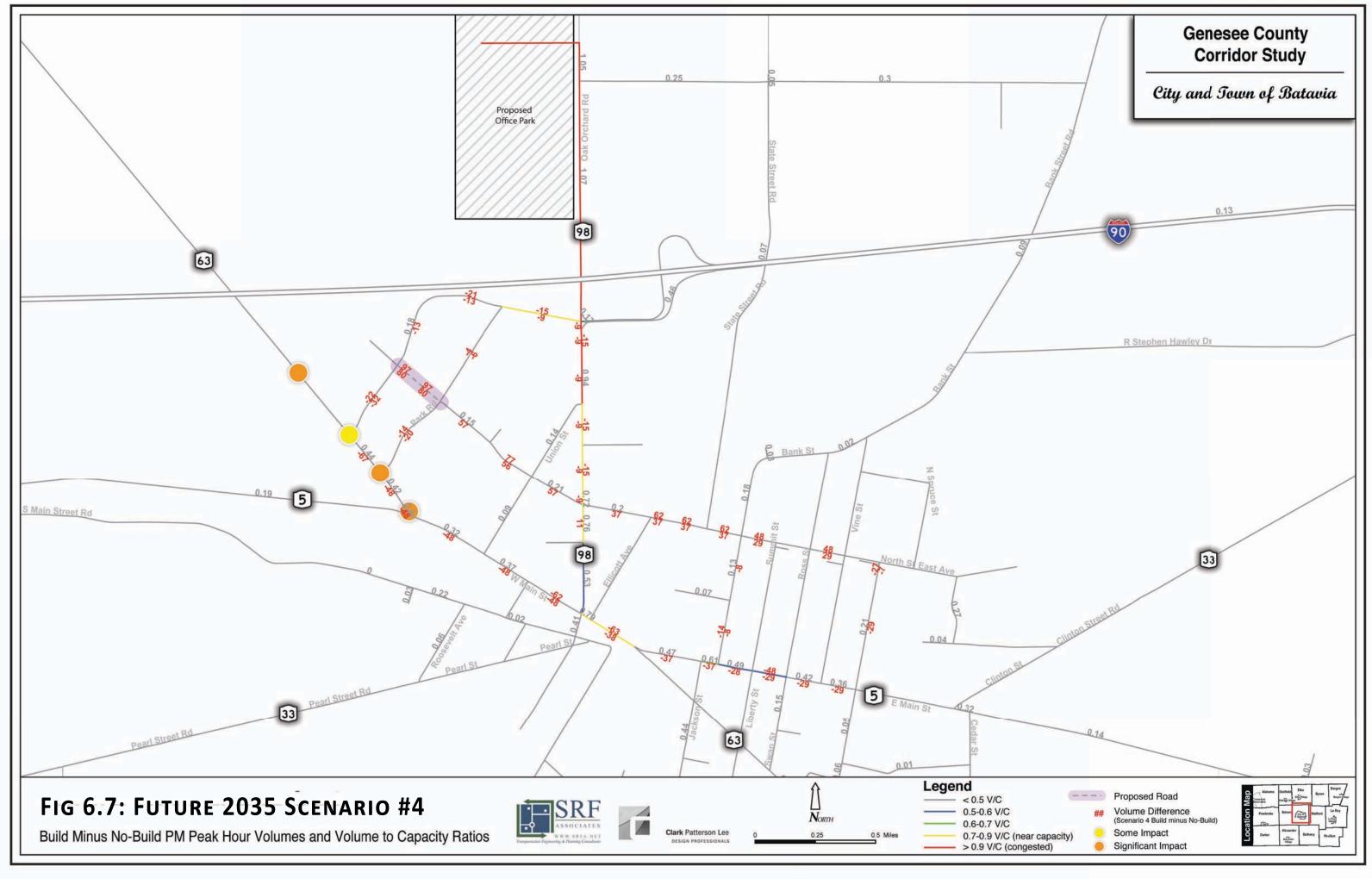
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STRATEGIC RECOMMENDATIONS

This section contains both general recommendations for transportation and land use enhancement opportunities as well as area -specific strategies.

A. GENERAL STRATEGIES

The preferred future roadway scenario described in this report, provides a framework for prioritizing larger, long-term capital improvement projects in the study area. However, smaller more strategic recommendations dealing with land use, site design, circulation and access, and roadway enhancement may provide greater benefits in the short- and mid-term and greater influence on traffic circulation in and around Batavia.

Land Use and Development

- Maintain agricultural lands. Continue to encourage industrial/light industrial/ commercial development within the City and on the Town-City border to protect valuable farmland elsewhere in the Town.
- ii. *Infill development*. Continue to actively market and encourage the redevelopment of vacant or underutilized residential and commercial property throughout the study area, but especially in the City.
- iii. Housing for seniors/elderly. Senior and elderly housing should be encouraged in Batavia. These types of uses should be located near areas with a variety of services that are within easy walking distance (1/4 mile or less), accessible to the Batavia Bus Service routes, and connect to existing sidewalk systems. A

- transit-oriented style of development is preferred and should be highly encouraged by the Town and City. Recommended locations include lands near Veterans Memorial Drive and the City center.
- iv. Sustainable development patterns along Route 98. Although development is allowed along this roadway, the extent of development should be carefully reviewed since the large amount of land available will result in significant increases in traffic volume. Compact and transitoriented development, open space conservation or recreational development, and incorporating transit amenities (shelters, park and ride, etc.) would help to ease the anticipated strain on Route 98 without significant roadway widening.
- v. Revise permitted uses to influence traffic impacts on Route 98. Commercial, light industrial, and recreational land uses that have lower daily trip generation should be the preferred permitted uses. Other uses, such as retail, restaurants, and professional offices, should be limited to a smaller percentage (less than 25 percent) of the overall development to limit large increases to traffic volumes on Route 98.

Vehicular Circulation

i. Driveway & access consolidation.

Driveways on the approach side of intersections should be minimized to reduce the likelihood of crashes and improve overall traffic flow. Minimum driveway spacing standards should be reviewed and enforced during site plan reviews. Driveway spacing recommendations are based on the posted speeds for the main thoroughfare, as shown in Table 7.1, or the number of trips generated by the business or land use.



Table 7.1—Driveway Spacing				
Speed (mph)	Minimum Spacing (ft)			
30	185			
35	245			
40	300			
45	350			

Recommended minimum driveway spacing to reduce overlapping of right-turn movements from the driveway to the main thoroughfare. (Adapted from TRB Access Management Manual p152)

- ii. Shared access. Incorporate shared access between businesses to encourage multiple destinations within one area to be connected by pedestrian trips. Shared access also eliminates multiple curb cuts, which can contribute to an increase in conflict points and crashes.
- iii. Driveway alignments. Driveways that are opposite each other should be aligned to prevent operational and safety problems they typically contribute to. Where driveway consolidations, new or revised site access, or a new development is proposed, driveways should be aligned across roadways. In cases where this cannot be achieved during new development or redevelopment, the applicant should be required to submit documentation (including a traffic study) to demonstrate impacts to safety and efficiency in the corridor and future mitigation options.
- iv. *Intersection Improvements*. Although none of the intersections in the study area (see figure 5.6) have a current level of service rating lower than "C" overall, some individual legs do have ratings that indicate improvements are warranted. These intersection legs include West Saile

Drive, the eastern leg of Route at the 5 & 63 intersection, and Cedar Street at Route 63.

• Route 5 @ Route 63: Traffic is currently controlled through a traffic signal with a dedicated left turning lane for the Value Home Center and plaza. It can be assumed the "D" level of service rating is due to traffic in the left turning lane backing up into the adjacent through lane. The relatively close distance between this light and the Tops plaza entrance (~350 feet) results in a short storage length of approximately 100 feet.

Elimination of either one of the signal-controlled entrances would be undesirable and unsafe. Several measures may be utilized to improve service including adjustment to signal timing between this intersection and the Tops entrance intersection and the elimination of the two entrances for the Sport of Kings Restaurant. Access to the restaurant can be more easily controlled and accomplished at the Tops intersection. In addition, good practices for site design and traffic



Existing lane striping and access at Route 5 & 63. The short queue length for the turning lanes and multiple curb cuts for the restaurant can be seen at far left.



engineering indicate that driveways should be located further away from intersections to avoid crashes and congestion.

- West Saile Drive: Vehicular backups due to truck traffic are common at this intersection due to the various commercial businesses located in the vicinity. To alleviate these backups and improve service, a dedicated left turn lane may be the preferred option. With a right-of-way of approximately 100 feet, adequate space exists for this type of improvement. However, if development does occur in the Planned Business District in the future, the volumes and subsequent turning movements anticipated would be best alleviated with a roundabout instead. (See figures at right)
- Cedar Street at Route 63: Level of service for Cedar Street is a D, primarily due to the truck traffic from the County DOT and Hansen Aggregates. Although a dedicated turn lane currently exists, traffic volumes are likely too low to warrant a traffic signal. Further monitoring of the intersection is recommended.
- v. Utilize roundabouts. The Route 98 corridor from the Thruway interchange northward will likely see increased traffic volumes and turning movements and potential decreases in capacity (level of service) as a result of development north of the Thruway, should it occur. According to the traffic model, if the full build out of the Planned Development District, Gateway II Park, and other developable lands is realized, northbound traffic would double and





The roadway simulations above show how a dedicated turning lane and signal can be constructed to help alleviated congestion for the existing intersection (top) and a four-way intersection (bottom) if the area is further developed.





These roadway simulations show how a three-way roundabout for the existing intersection (top) and a fourway intersection (bottom) would appear.



southbound would quadruple. To alleviate this potential condition and maintain effective service, roundabouts should be considered at the intersections of Saile Drive, the Thruway interchange, and adjacent to the Gateway II entrance, should a secondary entrance be considered for the Planned Business District.

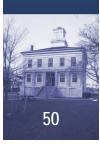
The roundabout at the Thruway interchange would be anticipated to be two lanes for north-southbound traffic and one lane for east-westbound traffic, and a single lane for the other roundabout(s). The roundabouts would be designed to suit the roadway volumes and require additional research and study prior to their consideration or design.

- A right-turn bypass lane may be considered for the Thruway roundabout for north and southbound traffic. These lanes are beneficial in locations with minimal pedestrian and bicycle activity, approach demand is high, and a significant portion of the traffic is making right-hand turns. If a bypass lane is utilized, a second entry lane in the roundabout may not be required resulting in a smaller roundabout. Detailed capacity and delay calculations would be required to determine if a bypass could be utilized at the Thruway interchange.
- vi. *Truck Routes*. Consider designating Batavia-Stafford Townline Road (from Route 33 to Hawley Drive) a truck route to take trucks (non-local delivery) out of the city center to preserve quality of life, decrease idling emissions, and provide some traffic congestion relief. This road is classified as highly restricted for truck/commercial traffic and this re-designation would more than likely require roadway

improvements (road widths, signage, height, roadway base, etc.).

Pedestrian improvements would need to be implemented as well since Hawley Drive and a portion of Townline Road was identified as an area of concern for pedestrians due to students at GCC. This recommendation would also be dependent on the implementation of the Hawley Drive Extension (Proposed Roadway Segment #1) to provide an efficient route to the Thruway.

vii. *Road widening*. Widening Route 98 north of the Thruway to three lanes (center two-way turn lane) would provide needed capacity for future development in the area. Widening beyond three lanes may be prohibited due to the width of the existing right-of-way.



Modern Roundabouts

Roundabouts are unsignalized, circular traffic intersections that require vehicles to slow down and yield to through traffic. These types of intersections have been successfully utilized in European countries for decades for calming traffic, enhancing vehicular safety (i.e. decreasing crashes), and improving operational efficiency.

Roundabouts are no stranger to the City of Batavia with the 2009 installation at the intersection of Route 33, 98, Franklin, and South Main Street. This improvement has led to a more functional intersection with fewer crashes and conflict points - a common result for many of the modern roundabouts installed throughout New York. In addition to traffic movement improvements, a modern roundabout also provides opportunities to add aesthetics amenities such as a central landscaped circle, enhanced pedestrian crosswalks, and an overall improved appearance.

As was the case in Batavia, hesitation from the community regarding roundabouts typically stems from unfamiliarity with them and their perception as traffic circles, which they are not. Learning about roundabouts and how to navigate them can be achieved through NYS DOT-sponsored educational material as well as actual use of the intersection by users. The City has observed the benefit of a modern roundabout and this successful improvement can be mirrored in other parts of Batavia.

Installation of a roundabout depends on various factors, such as available land, traffic volumes, the number of crashes, and road geometry. An in-depth study and analysis is done in conjunction with design work to determine if an intersection can accommodate such an improvement.

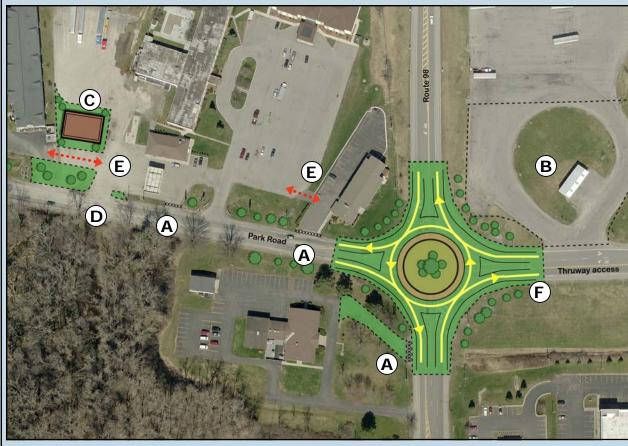






(From top to bottom): Examples of modern roundabouts include a more urban style in the Village of Hamburg (Erie County), a simple rural design in the Town of Mendon (Monroe County), and the roundabout in the City of Batavia.

A Roundabout at Route 98 & Park Road



- **A:** Eliminate multiple curb cuts and entrances
- **B:** Potential space for a park & ride or ride-sharing lot
- C: Potential commercial infill space
- **D:** Better defined access point for lot with improved buffer and landscaped space
- E: Cross access opportunities between parcels
- **F:** Two-lane roundabout with landscaping

Pedestrian/Bicycle/Transit Systems

i. Sidewalk expansion. Several areas have been identified as locations of concern for pedestrians. Sidewalks are found throughout the City, but are typically installed on only one side of the roadway in the Town and limited to areas adjacent to the City line – wide shoulders are utilized by pedestrians and bicyclists elsewhere.





No sidewalk facilities exist on either side of Park Road for patrons of Batavia Downs when parking across the road and the limited shoulder that is available is uneven and narrow in sections (top). Only one dedicated crosswalk exists for the parking lot for Batavia Downs, located at the main entrance (bottom).

 Expand the sidewalk system along Route 63 from the City line near Park Road to Veterans Memorial Drive where retail commercial growth has been steadily increasing. The sidewalks should also continue along Veterans Memorial Drive to connect

- to other retail establishments and their internal sidewalk systems as well.
- ii. *New sidewalks*. In addition to those areas previously mentioned, there are several locations where sidewalks do not exist and higher levels of pedestrian activity may warrant their installation.
 - Trail/sidewalk from the City line to Genesee Community College, utilizing Bank Street Road, Hawley Drive, and Batavia-Stafford Townline Road from GCC College Village to the Route 33 intersection.
 - Park Road near Batavia Downs. With
 the main parking facility located on
 the opposite side of Park Road, there
 are three primary pedestrian conflict
 points at the parking entrances.
 However, with no dedicated sidewalks
 or pedestrian paths, and only one
 designated crosswalk, conflict points
 could be located anywhere along the
 roadway. Sufficient right-of-way
 appears to exist along Park Road for a
 sidewalk on the west side.
- iii. Pedestrian Maintenance Plan. A pedestrian maintenance plan should be developed and revisited annually to ensure sidewalks and crosswalks are properly maintained and installed. High pedestrian activity areas should be designated in the plan (e.g. near schools, parks, community services, etc.) to receive higher priority status for facility improvements and installation. Other priority areas can be designated as well. The plan should be updated as part of the Town and City's capital improvement plans. The plan should also outline where significant gaps exist in the pedestrian network.
- iv. *Dedicated bike lanes*. The major roadways in the study area primarily



consist of vehicular travel lanes, curbing, and grade separated sidewalks within the City; shoulders are found in outlying areas and within the Town. In certain sections, such as Route 5 through the central business district, roadways cannot be reconstructed to accommodate dedicated bicycle lanes. However, roadway striping may be adjusted to allow bike lanes.

A low-cost measure such as this would be relatively easy to implement, or remove should conditions prove to be unsafe for cyclists and motorists. Travel lanes can be reduced to 11 feet in width and still effectively accommodate vehicles safely; bikes lanes should be at least five feet wide.

Bike lanes should be highly visible to motorists and signage should also be incorporated to bring attention to their presence on the roads. This can be done on a small scale to determine its effectiveness prior to restriping the entire length of Route 5 or other roadways where bicycle traffic is high.

- v. Share the road signage. Whether dedicated bike lanes are implemented or not, high visibility signage presents the best opportunity to educate motorists and make them more aware of cyclists using the roadways. Signage should be strategically located in the central business district and near major intersections, where traffic volumes are higher and turning movements are more frequent. Where shoulders are wider and can safety accommodate cyclists, signage should be installed, although less frequently.
- vi. *Bike friendly design*. Where dedicated bike lanes can't be provided, there may be other feasible alternatives such as wide

- curb lanes, "sharrows," paved shoulders, and/or undesignated "bike space."
- vii. Enhanced pedestrian warning. The central business district in the City is an area of higher pedestrian activity, density, and traffic volumes. Pedestrians-vehicular interactions and crashes have a higher tendency to occur here; high visibility crosswalks, signage, and warning systems for pedestrian crossings should be installed at key locations. Regular maintenance of the crosswalks is an important aspect for ensuring continuous pedestrian safety.

The crosswalks along Park Road are also highly traveled and traversed due to the location of Batavia Downs Racetrack and Gaming and its parking facility across the road. During events, as well as weekends, pedestrians frequently cross Park Road. Additional pedestrian warning systems and signage should also be incorporated along this roadway as well.

viii. Bus Shelters. Actively pursue the installation of additional bus shelters by RGRTA and work with new businesses to incorporate bus shelters as part of their proposed developments. This is especially important along Veterans Memorial Drive and for the many business parks that are under development.



The area shown here is located northeast of the intersection of Route 98 and the Thruway exit 48 on/off ramp. The section outlined with the dotted line could be utilized for a park-nride or other similar purpose.



- These uses are major traffic generators that may be able to decrease traffic through mass transit opportunities.
- ix. Park and Ride. New and expanded park and ride facilities should be considered to facilitate additional transit use, help to decrease traffic volumes, and reduce single-occupancy vehicular trips in the corridor. An ideal location for the facility would be near the Thruway interchange where an expansive area currently exists for tractor-trailer parking. A small amount of land could be utilized for a park and ride lot, with the remainder still utilized for tractor-trailer parking.

Streetscape

i. Sidewalk buffer zones. Buffer zones should be included between the sidewalk and roadway to provide an extra level of separation (in addition to a grade change through curbing), decrease road noise, provide adequate snow storage space, and provide room for other amenities (such as street trees). Buffer zones are especially important when adjacent to high-speed (above 45 MPH) roadways to provide additional space for errant vehicles.

- ii. Landscaping. The outer edge of the roadway is typically overlooked and neglected; yet this is where pedestrians travel and the transition to private development begins. Incorporating landscaping, whether in the buffer zone or along the edge of the right-of-way, can help to soften the roadway edges, calm traffic by visually narrowing the roadway, enhance the appearance of the corridor, and help to create a more defined sense of place and identity.
- iii. Street Trees. Research has shown that tall objects located at or near the edges of roadways can influence a driver's speed and driving characteristics. Street trees provide a defining edge to roadways and decrease the field of view for motorists on wider roads, causing them to drive more cautiously. In addition, street trees soften road edges, improve aesthetics, provide a buffer to adjacent sidewalks or trails, help to frame adjacent businesses or developments, and help to offset negative environmental impacts of development.
- iv. *Pedestrian Amenities*. Provide pedestrian amenities, such as seating, kiosks, human-scaled signage, drinking fountains, etc. to promote and encourage foot traffic and





Pedestrian-scale lighting (at right) and other smaller scale amenities create a more interactive and inviting environment, whether it be adjacent to a Main Street or within a commercial plaza.



- provide a more enjoyable experience for a wide range of users. These amenities should be placed outside of a 6 foot wide clear passage zone for safe pedestrian travel.
- v. *Lighting*. When roadways are constructed or reconstructed, whether private or public, decorative lighting should be considered to provide a better definition of place and add to the aesthetics of the overall area. When light poles are adjacent to sidewalks or public walkways, pedestrian-scaled lighting should be included; public street improvement projects should require pedestrian lighting.

Site Design

i. Design standards for highway commercial uses. The design standards should be geared towards their respective locations, with greater density, closer setbacks, and more intricate architectural design in the City and other dense areas, and transition to lower density, greater setbacks, and more rural designs in the Town.



A decent example of a commercial development that incorporates more human-scaled design elements and landscaping to improve the appearance and function. Parking along the frontage would preferably be limited to one row with the remainder to the side/rear to provide greater interaction between the building and street.

ii. *Multi-tenant commercial uses*. Strip development, which is typically described

- as adjoining businesses that are arranged in a linear fashion and adjacent to or surrounded by a larger, single parking area, should be avoided. If multiple businesses are proposed for a single property, they should be arranged with open areas separating them for pedestrian travel and green space. Parking should also be broken up to create a more human-scaled environment.
- iii. Buffers. Establish vegetative buffers between residential and non-residential uses, including agricultural. Where non-residential uses abut residential uses, buffers should consist of a minimum of coniferous trees and vegetation and constructed as part of the non-residential development. Where non-agricultural uses abut agricultural uses, buffers could consist of a mix of coniferous and deciduous vegetation and be developed as part of the non-agricultural development.



Buildings should be designed to avoid blank walls and incorporate pedestrian-scale elements and architectural details instead.

iv. Building façades. Entrances to buildings should be oriented towards the primary street with attention given towards the placement of doors and windows in relation to patrons. Blank facades facing public streets or sidewalks should not be



- allowed. Where buildings are located on corners, equal architectural treatment should be given to each side.
- v. Parking areas. Parking areas should be landscaped or otherwise screened when adjacent to residential areas and public thoroughfares, including sidewalks. Expansive parking areas should be broken up with landscaped islands to reduce the "heat island" effect, provide a more aesthetically-pleasing environment for users, and provide areas for natural stormwater absorption and filtration.
- vi. Pedestrian connections. Provide internal and external pedestrian access via sidewalks or walkways with all large, private developments. The sidewalk or walkway should also connect to an existing sidewalk or extend out to the right -of-way line if sidewalks are proposed for the area or are within 1,000 feet of the development.
- vii. Parking location. Place parking to the rear or sides if the primary structure with the building as the prominent feature to the street.
- viii. Service areas. Dumpsters, loading and service areas, and other similar service needs should not be visible from the street, but still remain easily accessible to the business.
- ix. Sensitive environmental features.

 Integrate wetlands and floodplain areas into the overall site design rather than separating them.
- x. *Shared Access*. To minimize the number of curb cuts, adjacent development should incorporate shared access points to the greatest extent possible.
- xi. *Residential development*. Residential subdivisions should be designed to

conserve natural features, including valuable farmland, expansive woodlots, and wetlands, and to concentrate home construction in a development.

Concentrating or clustering residential development helps to reduce infrastructure construction costs and provides a means for conserving additional lands for open space or expanding/creating public trails and greenways. Current real estate trends indicate that the housing preferences for seniors and young professionals ("millennial") will require communities to offer a diverse range of housing, including higher density, maintenance-free development types (e.g. condos, town homes, and patio homes).

Safety

- i. Designate high pedestrian areas. Utilize high visibility crosswalks, in-road signage, lights, and other measures and make these areas the first priority for maintenance and improvements such as speed humps or bumps.
- ii. Enhanced lighting warning systems.
 Typical pedestrian warning systems consist of crosswalks and signage for motorists and pedestrian signals ("WALK" and "DON'T WALK") for pedestrians. In areas of high pedestrian





activity, additional methods could be considered to improve safety for all users.

- High-intensity activated crosswalks are a type of signaling system used in high traffic areas (pedestrian and motorist) that utilize lighted signals to warn motorists of pedestrian activity. The system is typically installed on a traffic support pole or mast arm and is easily visible to motorists.
- In-road lighting combined with a highvisibility crosswalk increases the level of awareness of both the crosswalk and the pedestrians utilizing it. This is a real-time system, where the lighting is only visible to the motorist and pedestrian when one is present in the crosswalk.
- Pedestrian exclusive signal phases, which stop traffic in all directions and





These two images from Batavia show instances where pedestrian island refuges would be beneficial to protect pedestrians from traffic. The bottom image also shows where regular maintenance of sidewalks is important as the markings will where down over time.

What about lowering posted traffic speeds?

Increases in traffic volumes, especially on rural roads or areas that are experiencing an increase in development, result in local concerns about safety, especially vehicle speed. Although residents or businesses may believe that lowering speeds will increase safety and decrease crashes, the reverse may be true. Research conducted by various agencies, including the Federal Highway Administration (FHWA) and the Insurance Institute for Highway Safety (IIHS), suggests that raising or lowering the speed limit had little impact on vehicle speed.

In addition, lower speed limits did not reduce the number of crashes. Instead it increased the number of violations issued for speeding. In most cases, the posted speed limit is often below the average speed of traffic in the area. Roadway design and the surrounding development patterns have a much greater impact on motorists' speeds and driving behavior. Road width, alignment, and surface material, along with the proximity of defined edges (e.g. street trees and/or parked cars) alter drivers' experience on the roadway and calms traffic.



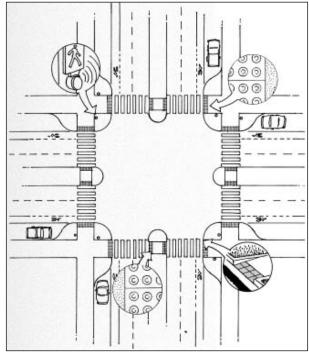
allow pedestrians more crossing opportunities and fewer conflicts with turning vehicles. This type of signal is best suited in areas of high pedestrian activity, vehicular turning movements, or higher speeds.

- iii. Pedestrian island refuges. These are used to give pedestrians a waiting point before crossing multiple lanes, pedestrian refuges or crossing islands have demonstrated their effectiveness at reducing pedestrian crashes. They may be used at uncontrolled locations (midblock or intersections) or signalized intersections and can be installed as a standalone pedestrian element.
- iv. High-visibility crosswalks. These include not only the preferred continental style marking, but also the use of alternative pavement materials and enhanced physical design. Raised crosswalks are a common physical design change that elevates the pedestrian in the roadway, making them easier to see and improve their travel by removing grade changes. Alternative pavement materials include stamped concrete, colored asphalt, or decorative pavers, among others.
- i. *High-visibility signage*. Advanced, high-visibility signage gives motorists ample



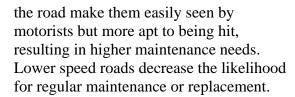
warning that they are approaching a crosswalk or pedestrian activity area. Replacement of the standard yelloworange signs with florescent yellow signs has proven to be an effective approach. *In-road signage*. This type of signage would be most effective in areas with lower speeds and higher pedestrian activity, such as Main Street in the center of the City, Park Road, and near other community resources (schools, parks, etc.).

In-road signage tends to be smaller in height and sign size and is typically installed adjacent to a crosswalk. Their small size and location in the middle of



Various design elements that are recommended for pedestrians at intersections to make them safer for crossing roads. © FWHA, "Designing Sidewalks and Trails for Access."





ii. Bump-outs. Curb bump-outs are used to reduce the crossing distance for pedestrians and narrow the roadway, which causes vehicles to slow down. Bump-outs have been utilized on Main Street/Route 5 in the City and should be considered where on-street parking is allowed or in larger developments to facilitate greater pedestrian safety and activity.

B. FOCUS AREAS

The roadway scenarios and recommendations outlined on the previous pages provide valuable guidance in future capital improvement projects and private developments in the study area. To reinforce the recommendations and to better illustrate their potential impacts, two focus areas were chosen within the study area. The focus areas feature conceptual designs for transportation alignments only. Development in and around the focus areas would be dependent on the current zoning district(s) and economic and market conditions.

Veterans Memorial Drive Area

Utilizing the proposed outer loop road connecting Route 98 to Route 63, this concept also highlights additional retail and commercial development adjacent to Veterans Memorial Drive. In addition, the expansion of Veterans Memorial Drive on the south side of the current BJ's Wholesale Club plaza would connect to the County Building 2 access road. This configuration would

provide secondary access for potential development in the area.

Other transportation considerations include shared access, limited curb cuts, the use of internal access roads, street trees, and a mix of gridded and curvilinear streets for traffic calming. Although not shown, the internal street network should be connected to both roadways to increase connectivity; cul-de-sacs or dead ends should be avoided.

Where residential development is permitted, it is concentrated in a smaller area to ensure that surrounding farmland is preserved and to minimize infrastructure expansions.

Commercial and retail development are recommended to be located predominantly near Veterans Memorial Drive to maintain the area as a primarily retail corridor. The remaining commercial areas should be encouraged as smaller retail businesses (under 30,000 square feet), personal services, professional offices, and similar uses. These businesses should be of a higher-quality design with equal emphasis facades/ architecture, landscaping, site layout, and pedestrian presence due to their proximity to residential areas.

Route 98

With the potential build out of the Planned Development District on Route 98, access management and efficient traffic flow will be the primary concerns. The Route 98 focus area incorporates two roundabouts at the West Saile Drive and Gateway II/Call Parkway intersections to facilitate larger traffic volumes, yet maintain an appropriate level of service.

As shown in the conceptual layout of the area,



an internal ring road is recommended to move local traffic off of Route 98 and provide more efficient vehicular travel. The primary entrances for the development are located across from existing roadways to improve safety and traffic operations on Route 98. In addition, it integrates the development with the larger community, rather than isolating it. Cross access with the adjacent Gateway Business Park to the south provides greater integration among businesses and decreases turning movements on primary roadways.

Development of the area, as dictated by the current zoning regulations, would consist of commercial uses, professional offices, and other similar uses. Although permitted, it is recommended that retail uses or chain stores be limited to a smaller area to limit large traffic increases and excessive turning movements these uses bring.

Commercial and public recreational opportunities should also be incorporated to decrease the overall scale of development and to maintain areas of open space.

At the intersection of Route 98 and Park Road, some access management would be needed to accommodate the roundabout. This would primarily be accomplished through the closure of multiple access points on Park Road and combining access with adjacent businesses. Driveway access consolidation is recommended along Park Road as many of the businesses have multiple access points in a short span, creating excessive conflict points. Infill development is recommended in strategic locations to take advantage of underutilized spaces.

C. ZONING RECOMMENDATIONS

The recommendations and focus areas in the preceding pages provide options and preferred strategies for future transportation improvements and land use based on public input, steering committee guidance, traffic analysis and modeling, and established planning and development standards. Many of the transportation recommendations can be undertaken by the Municipal/County Highway Department or in cooperation with the NYSDOT.

However, land use and development recommendations would require revisions to the zoning codes of both the City and Town. Revisions to zoning will help to ensure that future development is consistent with the recommendations of this Study.

Town of Batavia

i. Land Development - The current regulations in the Agricultural District have the potential to allow a great deal of non-agricultural development. Since agriculture is a large portion of the economy in Genesee County, protecting existing agricultural lands is important.

The Town may want to consider developing two distinct agricultural districts with one that deals primarily with agricultural and another that is more flexible and adjacent to developed areas of the Town and City. As an alternative, specific development criteria could be established to encourage development closer to developed areas (e.g. lands can only be developed if they are not prime soils).

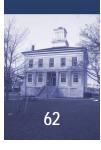
The Planned Business Development District along Route 98 has the single, greatest impact on future transportation and land use under the current zoning regulations. As such, this district should be re-evaluated in terms of allowable uses in order to mitigate significant transportation and land use impacts. Specifically, the allowable uses should be steered more towards professional offices and commercial recreational, rather than retail, which tends to have higher traffic volumes. Specifying a maximum limit on retail development would be the preferred option along with access management.

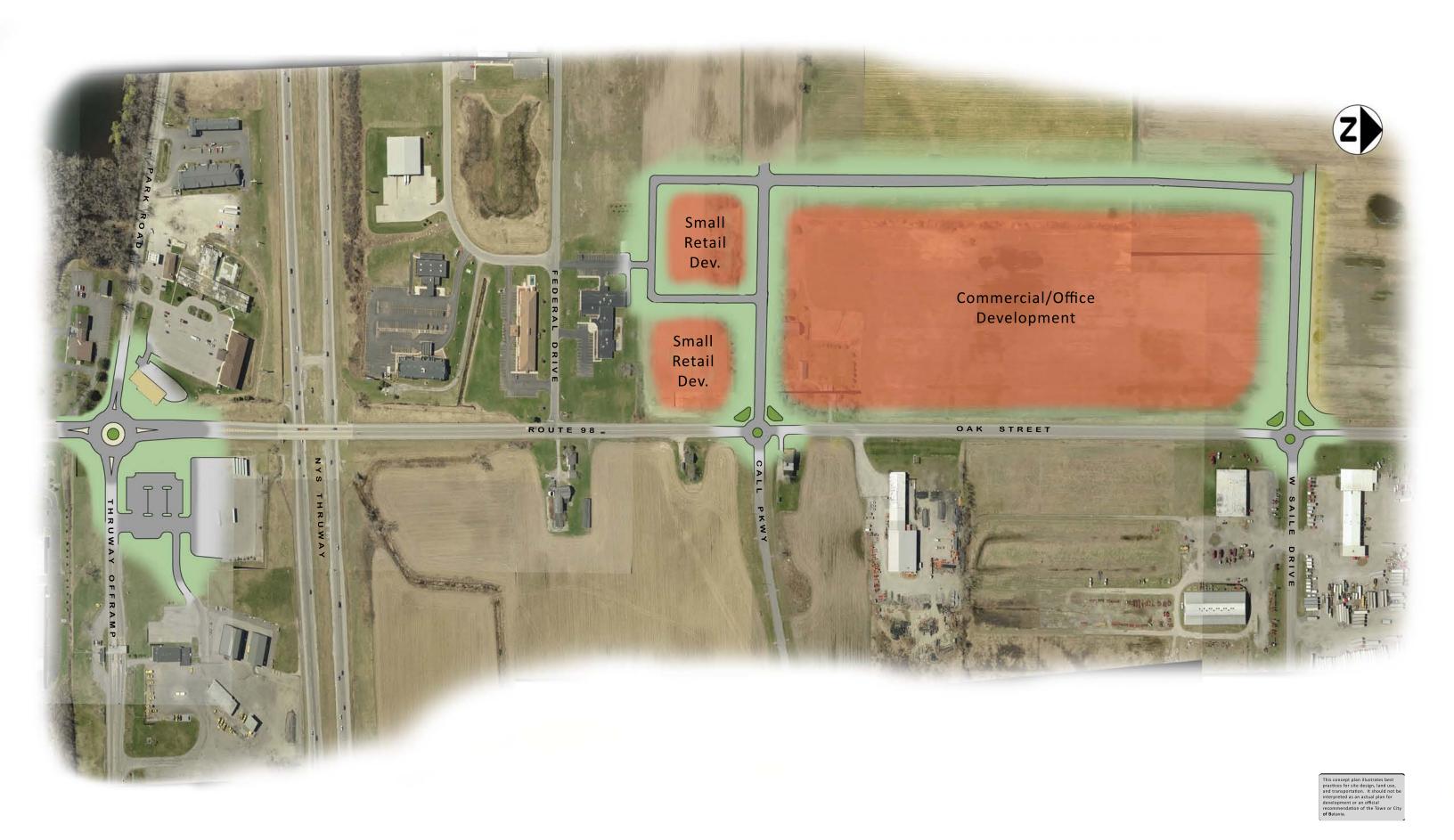
- ii. Access Management Access management strategies can help to prove a better manage traffic flow, as well as increase public safety and improve the appearance and quality of the built environment. Currently, the Town does not have any specific regulations dealing with access management, although curb cuts are only permitted with permission from the Town (§235-50). In addition to outlining specific criteria for curb cuts, regulations for driveway spacing, alignment of adjacent access points, joint and cross access, and internal circulation should, at a minimum, be included.
- iii. Site Design The Town should revise its current site plan requirements to include requirements for on-site pedestrian accommodations, parking configuration and location and building scale and location.
- iv. *Parking*—The Town should consider reducing parking requirements or providing flexibility for instances where shared parking can be accommodated.
- v. *Landscaping*—Landscaping is one of the most cost effective strategies to enhance

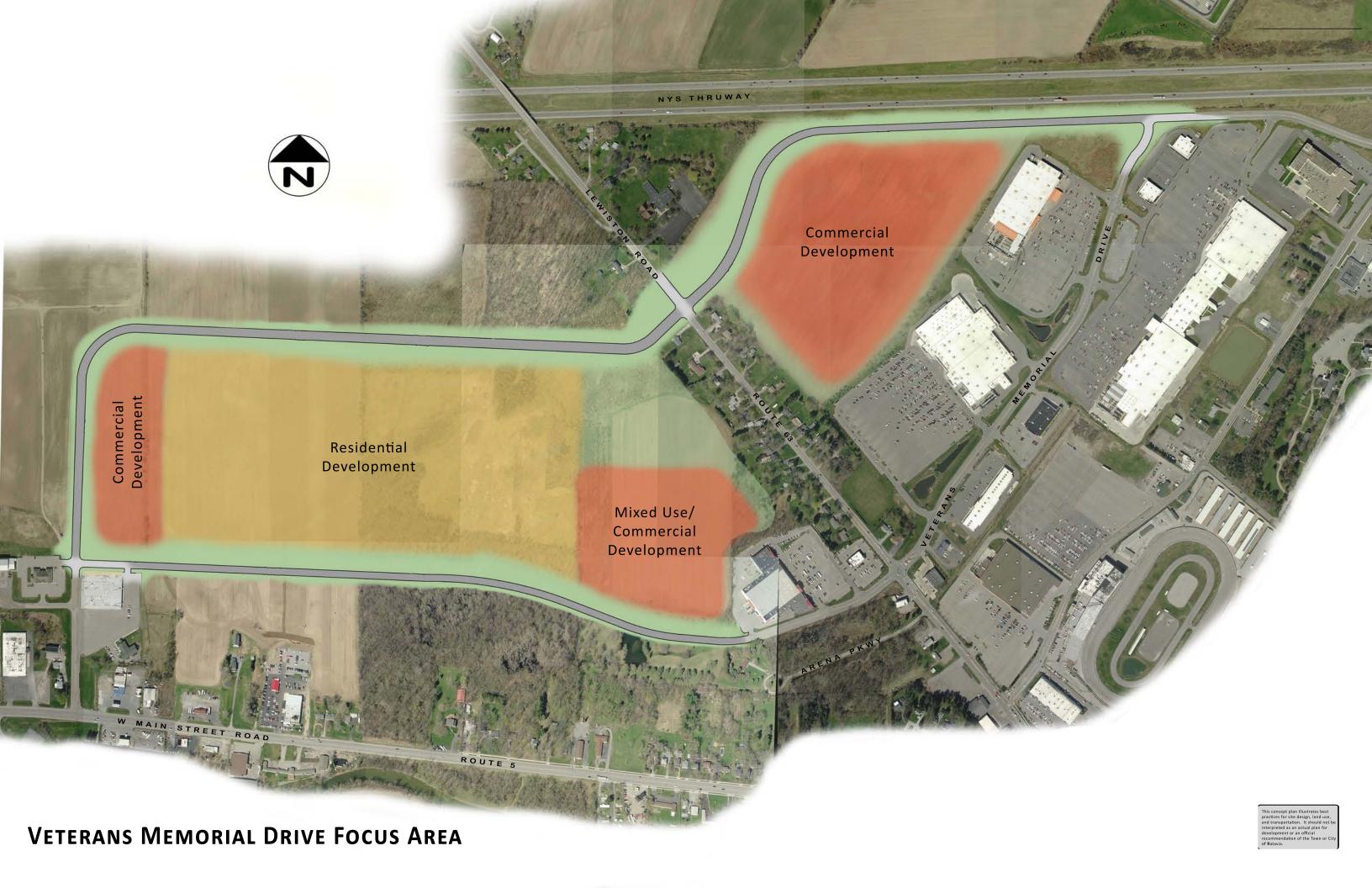
streetscapes and private development. The Town should establish landscaping design standards for street design and site plan review.

City of Batavia

- A. Access Management Some regulations exist under §190-41 for access management (e.g. curbing, access distances, buffering, etc.). The City should consider expanding or adding regulations to require access management improvements with any building permit application. Access management improvements should at a minimum include consolidation of multiple driveways, shared access points, alignment of adjacent access points, and improvement of sight distances.
- B. Senior Housing Development Currently the City does have regulations and associated definitions for nursing facilities and homes and accessory dwelling units. Nursing facilities are permitted in the R2 and PD-2 districts and accessory dwelling units are specially permitted in the R1 district. Expanding these regulations to include assisted living, independent living facilities and age restricted or age-targeted developments.







Pedestrian Enhancement Recommendations

Pedestrian Safety Enhancements



Source: Texas Transportation Institute

A. High Intensity Activated

Crosswalks: Typically utilized in high -pedestrian traffic areas, these systems use lighted signals to warn oncoming traffic of pedestrian activity.



Source: http://www.greensocal.net/2010/10/making-pedestrian-crosswalks-safer.html

B. In-road Crosswalk Lighting:

Lights placed within the roadbed along the outer edges of a crosswalk that alert motorists when pedestrians are crossing.



Source: www.walkinginfo.org

C. Pedestrian Exclusive Signal/Phase:
Installed where activity may be intermittent, these devices stop traffic in all directions and give pedestrians advanced crossing time.



Source: www.pedbikemaiges.org/Dan Burden

D. **Pedestrian Island Refuges:** Raised islands used with crosswalks at intersections or mid-block crossings to protect pedestrians from vehicles when crossing wider roadways.



Source: Clark Patterson Lee

E. Curb Extensions/Bump-outs:

Sidewalk extensions that reduce the crossing time and distance at intersections as well as improve pedestrian visibility to motorists.



Source: www.pedbikemaiges.org/Peter Speer

F. **High-visibility Signage:** High visibility signage, whether in-road or along the road, alerts motorists to possible pedestrian activity.



Source: Clark Patterson Lee

G. Alternative Pavement Materials:

Using alternative materials or colors for crosswalks provides greater visibility to motorists, especially when combined with reflective striping.



Source: www.saferoutesinfo.org & www.pedbikeimages.org

H. Raised Crosswalks: Mainly used for traffic calming, these raised areas are also effective at improving pedestrian crossing by providing a consistent elevation from sidewalk to sidewalk.

L	ocations:	Potential Enhancements:
•	Route 98 (Oak Street) / West Saile Drive	D, G
•	Route 98 (Oak Street) / Park Road	G
•	Route 98 (Oak Street) / Route 5 (West Main Street Road)	C, D, F, G
•	Route 98 (Oak Street) / Franklin & Route 33 (Pearl Street)	F, G
•	Route 5 (West Main Street Road) / Route 63 East (Ellicott Street)	C, D, G
•	Route 5 (West Main Street Road) / Route 33 (Clinton Street)	F, G
•	Route 5 (West Main Street Road) / Route 63 West (Lewiston Street)	C, D, E, F, G
•	Route 63 (Lewiston Road) / Veterans Memorial Drive	C, D, E, G
•	Route 5 (West Main Street Road) / County Building Access Road	B, F
•	Route 98 (Walnut Street) / Law Street	F
•	Batavia Downs crossing (Park Road)	A, B, C, D, F, H
•	Route 98 (Oak Street) / Richmond Avenue	B, C, E, F, G
•	Bank Street / Washington Avenue	B, E, F, G, H
•	State Street near High School	A, E, F, G, H
•	Cedar Street	B, F, G
•	Batavia-Stafford Townline Road (between Route 33 and Hawley Dr)	F, G
•	Hawley Drive (at GCC main entrance)	A, F, G

IMPLEMENTATION

In order for Batavia to capitalize on its central location in the region, the Town and City will need to make wise land use and transportation planning decisions and indentify opportunities for collaboration.

The recommendations outlined in the previous section were based on the evaluation of current and future conditions as well as an understanding of demonstrated land use and transportation techniques. They were guided largely by the community's expressed interest in maintaining and enhancing its current assets and resources. Although there are several complex issues that must be addressed in the future, such as build out of the parcels along Route 98 zoned for Planned Business Development, the strategies contained in this plan identify ways to maintain or enhance existing transportation conditions.

Many of the issues and needs of the community encompass multiple topics outlined in the previous section of the plan. Rather than identifying one dimensional actions within each policy area, the implementation and phasing section provides recommendations for future actions categorized according to the anticipated timeframe it will take to either initiate and/or complete the actions.

- Short Range actions range from 0-3 years
- Mid-Range actions range from 3-7 years
- Long-Range actions will require more than 7 years. Items in this category may also be continuous activities and projects.

Several follow-on activities were identified in the course of this planning study. Those advanced studies and/or data analysis are indicated with an asterisk (*). The recommendations that follow were developed based on community input and established best practices in community planning. They are not presented in any particular order within each timeframe and should not be interpreted as an exhaustive list of actions. In the future, new or different opportunities may emerge that relate to Batavia's vision, but do not correspond directly with a proposed action. Rather than considering the following recommendations a finite to-do list, they should serve as a guide for future decision making and public/private investment.

A. PHASING

Short-Range Actions

The following are short-range action items that should be implemented within the next three years.

- Implement one or several of the transportation funding strategies identified in Section C.
- Maintain a list of intersections where safety and access problems have been identified and implement corrective measures as funding is available. Utilize the potential improvements outlined in the Strategic Recommendations section of the plan.
- Bike Pedestrian Master Plan*—The City and Town both identified improved pedestrian and bicycle access as priorities for future improvements. To advance multi-modal initiatives and identify specific improvements needed to create meaningful linkages, a bike-pedestrian master plan should be developed.



- Identify existing crosswalks that need to be restriped and take corrective measures as soon as crews are available to complete the work.
- Access Management Policy or Local Law* —An Access Management Policy or Local Law would clearly outline the community's intent to make pedestrian/ vehicular access safer throughout Batavia. This topic could be addressed as a separate local law or as a provision in the zoning regulations. The Town and City would likely need to adopt separate policies. However, the policy could formalize collaboration among the municipalities in areas near city-town borders. The requirements established in the law/zoning code should be based on national standards, but adapted to suit the community's specific needs. Access Management laws/codes typically regulate driveway/intersection spacing, number and distance between curb cuts, intersection design, provisions for shared access or cross access between properties and other measures that will influence safety and access of all modes of transportation.
- Transportation Model Refinement * The model developed for this study adapted a framework and data sets created for a regional system. Going forward the existing model should be fine tuned to include additional traffic volume and intersection turning movement data to more accurately document existing and future traffic conditions within the Batavia area. Potential locations for additional data collection include Richmond, River Street, Park Road, and Law Street. Refining the model with more accurate updated traffic data will increase its

- usefulness as an analysis tool. Town and City leaders will be able to more accurately assess traffic implications of proposed projects and identify transportation system improvements needed to support future projects. The refined model could also be used to justify developer-required improvements.
- Create and maintain a transportation and/ or right-of-way infrastructure conditions GIS map to track transportation conditions. This information will help the City and/or the Town prioritize capital improvements and focus private investment as opportunities become available. The conditions map should provide an assessment of road conditions, sidewalk locations and conditions, street lighting, public landscaping installments, as well as sewer and water system components that could impact the corridor's performance.
- Install a roundabout at the intersection of Route 98 / I-90 / Park Road to more efficiently move traffic to and from the Thruway. Although this item should be categorized realistically as a mid-term improvement, it has been listed as short-term to demonstrate the community's level of interest in pursuing this option with the NYS Thruway Authority (NYSTA).
- Encourage out-parcel development in areas where underutilized space exists (parking areas). Out-parcel development would share existing points of access, focus development where it already exists and increase tax base.
- The Town should consider conducting its own traffic analysis for future large-scale



- development and may want to consider a fee-structure to off set associated costs with required analysis.
- Trails.* Explore multi-use trail path connections within the study area that link neighborhoods, schools, commercial areas and regional trail systems. The Town and City should consider a trail connection between Richmond Avenue and Veterans Memorial Drive. Expanding non-vehicular travel options will help the City and Town will help expand multi-modal transportation options within the study area.
- Create a pedestrian/bicycle path connection between Richmond Avenue and Park Road to facilitate non-vehicular access between local neighborhoods and the community's primary retail area. The pathway will need to be designed to ensure safety of users, including lighting and ample width to accommodate biking and walking.

Mid-Range Actions

• Design Standards * - The City and Town should each consider adopting design standards that can be utilized to guide site plan review and sub-division decisions. The design standards would address parking location, building orientation and massing, and other key elements that impact the appearance and function of new development. The context and recommendations for community design will vary considerably between the town and city because of the existing patterns of development and scale and massing of existing and future building stock.

- In anticipation of future traffic volumes on Route 98 in 2035, an additional southbound left turn lane on Route 98 at the Route 5 intersection may need to be installed as development increases at the Planned Business District.
- As development increases along Route 98, sub-area access management plans should be developed for adjacent roadways that will likely see increases in traffic volumes (e.g. West Saile Drive, State Street Road, Park Road). These plans should be provided and included with any site design plans for the area.

Long-Range Actions

- Consider designating Batavia-Stafford Townline Road (Route 33 to Route 63) a truck route to take trucks (non-local delivery) out of the city center to preserve quality of life, decrease idling emissions, and provide some traffic congestion relief. Batavia-Stafford Townline Road is classified as highly restricted for truck/ commercial traffic. This re-designation would more than likely require various roadway improvements (road widths, signage, height, roadway base, etc.).
- In advance of any significant development fronting Route 98, install roundabouts at the entrances to Gateway II and West Saile Drive along Route 98 to ensure efficient traffic flow through the future intersections. Future development proposed off of Route 98 will also need to analyze impact to the Route 98 bridge over the NYS Thruway and enhancements or replacement may be warranted.
- Design and construct the new road segments described in Scenario #1 in Section 6. The preferred scenario



included an extension of Veterans Memorial Drive from the Park Road/ Veterans intersection to Route 63 and continues on to Route 5. The scenario also included a western extension of Veterans Memorial Drive to the Genesee County Building driveway.

• If development in the Planned Business
District occurs, immediate steps will need
to be taken to address the potential volume
increases along Route 98. It is likely that
additional lanes of travel will be required,
especially between West Saile Drive and
Park Road. In addition, at least one
secondary access point to the new
development will need to be developed to
reduce negative impacts to Route 98 at
West Saile Drive.

B. PROPOSED FUNDING STRATEGIES

The design, construction, operation and maintenance of the existing transportation system components and any future enhancements or additions to the system identified in this plan will require funding from local, county, state and federal sources.

With federal and state transportation funding sources such as gas taxes predicted to continue to decline in the coming years, Batavia will need to find creative local funding strategies and develop new revenue streams to support needed transportation improvements.

Although Batavia will continue to pursue grant sources outlined in the following section, the Town, City and County will also need to establish public-private partnerships to advance projects from the planning phase through implementation. Batavia should consider the following strategies to help meet

their transportation and economic development goals.

Transportation Development District

A Transportation Development District (TDD) is a mechanism for funding transportation improvements. In New York State, these districts are referred to as Development Facilitation Improvement Districts (DFIDs). Once a district is created, the municipality has authority to assess and collect a fee from property owners (within the district) to finance, or repay the financing for, transportation-related capital improvements and/or construction of a road or roads. They are often established to address transportation improvements required for a specific area or roadway(s).

However, they can also be established to address transportation improvements at unspecified locations. General information about DFIDs, including an example from a New York State community, is provided in Appendix D.

In 1994, state enabling legislation was enacted that would allow the Town of Batavia to create a DFID. However, the Town has yet to establish a district. If the town determines that a DFID is in its best interest, it should consult with a municipal attorney and the State Comptroller's office to determine what steps need to be taken to complete the process. The documentation related to the 1994 state enabling legislation is also provided in Appendix D.

Transportation Mitigation Fees

The City and Town could implement a transportation mitigation fee, which would be triggered through the environmental review process associated with specific development projects.



The transportation mitigation fee would be addressed during the SEQRA process, likely through the preparation of an Environmental Impact Statement (EIS). In this approach, developers may be able to donate land and/or construct public infrastructure improvements in lieu of cash payments, depending on the municipality's preference or needs. Mitigation fees are becoming an increasingly popular method for financing transportation infrastructure associated with development and redevelopment projects that generate increased traffic demands. The fees can help generate revenues for the development and extension of local street networks, transit stations, and/or bicycle/pedestrian facilities.

A mitigation fee can also serve as a strategy to implement growth management policies and plans. Special area regulations can be used to designate geographic areas where mitigation fees will be applied. Some communities allow developers to offset some of their anticipated mitigation fee costs by paying for traffic mitigation, transportation demand management (TDM) or traffic calming measures or other amenities that will enhance the livability of the community.

In Batavia, the transportation mitigation fee would likely be associated with specific zoning districts and/or development thresholds and be determined based on trip generation. Higher fees might be designated for development areas anticipated to have higher impacts on the adjacent roadways or the transportation network as a whole (e.g. future development on Route 98). Sample language for EIS findings is provided in Appendix D.

General Development Fees

For future comprehensive plan updates, the Town and/or City of Batavia could consider

utilizing a Generic Environmental Impact Statement (GEIS) to satisfy SEQRA prior to adoption. If significant potential transportation impacts are identified, the GEIS could recommend the use of general development fees for transportation problems not otherwise mitigated by developers.

This approach would provide the community with a tool for addressing transportation problems outside a specific development area. The Town or City would then need to adopt a Development Fee schedule that includes transportation, which would be applicable to almost all types of development. A sample fee schedule from the Town of Wilton is included in Appendix D.

Regional Transportation Management Program

Developing a regional transportation improvement program would provide local municipalities with a mechanism to collectively identify high traffic impact areas and plan necessary improvements in a holistic fashion.

Developed either at the county level or multimunicipal, such as the City and Town of Batavia, a regional transportation management program could be the vehicle by which some of the other funding strategies are implemented. Through a regional transportation management program, involved communities would identify high traffic impact areas or corridors and determine thresholds for transportation enhancements needed to address both localized or systemwide impacts.

The structure of the transportation management program would need to be carefully coordinated with current and future zoning and land use regulations to ensure that



the program does not inadvertently push development to areas of the town that are not well suited for it. Additionally the regional program would need to determine funding triggers and/or relief opportunities to ensure that such a program doesn't adversely affect the community's development potential.

Incentive Zoning

Incentive zoning is another means for the community to obtain needed public benefits or amenities in certain zoning districts through the development process. Local incentive zoning laws can be structured to require cash contributions from developers in lieu of physical amenities, under certain circumstances.

Incentive zoning language could be crafted in a way that rewards developers' contributions to public infrastructure enhancements that are needed because of the proposed development. The most common are density increases, which can take a number of forms, including more units/acre, increased floor area ratio (FAR) and relaxation of building height restrictions.

Tax Increment Financing

Tax increment financing (TIF) uses the increased tax generation of redeveloped properties to pay the costs of associated public infrastructure or investment. TIF allows municipalities to leverage future tax benefits of real estate improvements to pay the present cost of those improvements. Although nationally TIF has been a valuable tool, it is currently limited by New York State law regarding the available funds for repayment of TIF bonds and the projects for which the TIF bonds may be used.

In states where TIFs are more widely used, municipalities can establish a TIF district,

specifically designating the geographic boundaries and time duration for the approved project. The municipality then freezes the property taxes of the TIF district and issues bonds to pay for upfront costs of the approved project. Once the project is completed, the tax increment, or the increase in the real estate tax revenue, is used to pay back the TIF bonds. Once the TIF district debt is paid or is terminated, the municipality reaps the benefits of the increased tax revenues, in addition to the increased tax base and increased economic activity spurred by the project.

At this time, this funding strategy should be considered a long-term solution because it will require revisions to New York law, the timing of which cannot be readily predicted.

Transportation Taxes

As part of their annual budgeting process, a few communities in the state have implemented a separate transportation tax component added to the overall property tax. The rate is higher for properties zoned for uses that will generate more traffic demand. This funding mechanism may present challenges because of the potential political implications and concerns that it may be viewed as a deterrent to business development.

Grants

Grants will be continue to be a focus for the city and town's future funding strategy. The following table identifies some of the likely funding sources that could be pursued. It also suggests projects that potentially align with available funding resources.

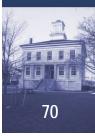


C. FUNDING OPPORTUNITIES

Funding Source	Description	Potential Application
NYS Smart Growth http://smartgrowthny.org/ grants.shtml	State clearinghouse for grants and financial assistance	
New York Safe Routes to School https://www.nysdot.gov/ divisions/operating/opdm/ local-programs-bureau/srts	Safe Routes to School (SRTS) is a federal, state and local effort to enable and encourage children, including those with disabilities, to walk and bicycle to school — and to make walking and bicycling to school safe	
Transportation Enhancement Program https://www.nysdot.gov/ programs/tep	In recognition that transportation systems are influenced and impacted by more than the condition of the traditional highway and bridge infrastructure, this program enables funding for transportation projects of cultural, aesthetic, historic and environmental significance.	Various street improvements on Veterans Memorial Drive
Statewide Transportation Improvement Program (STIP) https://www.nysdot.gov/ programs/stip	The STIP includes both highway and transit projects as well as urban and rural projects on both State and local facilities. The STIP is required to be updated every four years and to include a minimum four-year listing of Federal-aid projects for approval	
New York State Industrial Access Program https://www.nysdot.gov/ programs/iap	The New York State Industrial Access Program has been designed to complement economic development projects throughout the State where transportation access poses a problem or may offer a unique opportunity to the viability of a project.	• State Route 98 improvements
Recreational Trails Program http://www.nysparks.state. ny.us/grants/recreational- trails/default.aspx	The Recreational Trails Program is a State-administered, Federal assistance program to provide and maintain recreational trails for both motorized and non-motorized recreational trail use.	Various trails expansion, including

Funding Source	Description	Potential Application
NY Cleaner, Greener Communities Program http://www.governor.ny.gov	A program to encourage communities to develop regional growth strategies in housing, transportation, emissions control, and energy efficiency and revitalize urban areas. This program has been proposed by Gov. Cuomo in 2011 and has not yet been put into action.	Park Road connectionBike routes/lanesPedestrian Plan
NYS Consolidate Local Street & Highway Improvement Program https://www.nysdot.gov/ programs/chips	A reimbursement program administered by the NYSDOT that provides funds to support the construction and repair of highways, bridges, highway-railroad crossings, and other facilities that are not on a State highway system. Projects must be located within the public right-of-way and have a useful life of at least 10 years.	 Veterans Memorial Drive improvements Park Road connection Lewiston Road/Route 63 connection
Upstate Regional Blueprint & Downstate Revitalization Funds http://www.empire.state.ny. us/BusinessPrograms/ UpstateDownstateFunds.html	The fund promotes economic development by financing capital improvement investments throughout the State. Funding is administered through NYS Empire State Development and are allocated through three tracks: business investment, infrastructure, and downtown redevelopment.	 Veterans Memorial Drive improvements Route 98 development
Community Development Block Grant (CDBG) http://nysdhcr.gov/Programs/ NYS-CDBG	The NYS Office of Community Renewal provides funding for three rounds each year, depending on available funding from State and Federal sources: an annual competitive round, economic development, and strategic planning technical assistance. The primary goal of the funding is to develop viable communities by providing affordable housing, suitable living environments, and expanding economic opportunities, especially to those of low or moderate income levels. Housing, public facilities, and public infrastructure are included in the competitive round.	 Pedestrian Plan Route 98 development Veterans Memorial Drive development (especially if coupled with housing component)

The grants and other funds listed above do not comprise an exhaustive list of funding sources available for transportation-related projects. All funding sources, amounts, timeframes, and application processes are subject to change. The websites and information provided are current as of the publication of this report.



Examining Funding Options—Sample Case Study

To advance many of the infrastructure improvements outlined in this study, the Town and City of Batavia will need to determine the best funding alternative(s) and identify when and how the potential options will be implemented. Obviously, most major transportation improvement projects will include involvement and funding assistance from County, State and Federal partners. The following case study examines how the potential funding options could be assessed for the proposed construction of Veterans Memorial Drive Extension from the existing road across Route 63 and intersect Route 5 at the driveway to the Batavia Town Hall and Genesee County Building #2. The sample case study is based on order of magnitude cost estimates and assumes a consistent percentage of local funding and grant resources across the various funding options that are explored below. The case study also includes assumptions about future development potential.

Veterans Memorial Drive Extension Assumptions

Roadway Design—The future connection from the existing road to SR 5/West Main Street Road is approximately 8,718 feet (1.65 miles). For the purposes of this demonstration, the planning-level cost estimate assumed that the new roadway would be three-lanes (two travel lanes and a shared turn lane) with shoulders, tree lawn and sidewalks and cost \$8.5 million to construct.

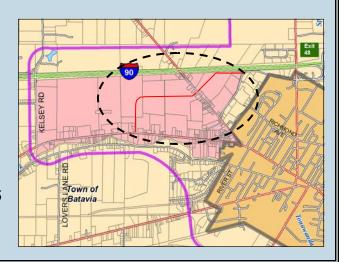
Development Potential—For the purposes of this study, it is assumed that the new roadway would support development of approximately additional 600,000 square feet of commercial space.

Peak hour trips—The specific type of development located along the corridor will directly influence the peak hour trip generation. To estimate trip generation, we assumed a mix of retail and office uses. Based on these assumptions, 600,000 sf of new development would generate approximately 2,980 peak hour p.m. trips.

Funding Options

Transportation Development District

Transportation Development District (TDD) assessments are levied upon properties located within a specified district boundary. For the purposes of this sample test case, the TDD boundary was based on the geographic description provided in the 1994 state enabling legislation. The boundary, shown here, included Park Road, Route 63 and Route 5 and generally ran along the town/city line





to the east, the NYS Thruway to the north, Kelsey Road to the west and Tonawanda Creek to the south.

The boundary includes 231 existing parcels, with a total assessed value of \$45,034,063. Based on today's parcel classification and values, five properties classified as commercial account for more than half of the assessed value of the boundary (approximately \$27.4 million). These figures do not include the future commercial development proposed along the new roadway, which would comprise approximately 140 acres. Using an average per acre value of land, an additional 140 acres of new commercial development would increase the total commercial property value to approximately \$56.4 million, for a total of approximately \$74.1 million within the boundary.

There are various formulas for a TDD assessment. For this order of magnitude exercise, we selected a sliding scale rate based on property classification type.

Transportation Development District			
Test Case Assumptions			
Estimated Project Cost	\$8,560,000		
Estimated Commercial Space (sf)	600,000		
Potential Funding Sources			
Anticipated Town Share (10%)	\$856,000		
Grants and other sources (15%)	\$1,284,000		
Low Rate Scenario (15 year			
district revenue)	\$1,952,660		
Low Rate Scenario Total			
Revenue (includes town share			
and grant/other sources)	\$4,092,660		
High Rate Scenario (15 year			
district revenue)	\$3,835,246		
High Rate Scenario Total			
Revenue (includes town share			
and grant/other sources)	\$5,975,246		
Low Rate Scenario—Additional			
Funds Needed	-\$4,467,340		
High Rate Scenario—Additional	60 504 77 6		
Funds Needed	-\$2,584,754		

In the low rate scenario, rates were \$0.50, \$1.0 or \$2.0 per \$1,000 assessed value. Agriculture properties were assessed at \$.50; residential, community service and vacant were assessed \$1; and commercial and industrial were assessed \$2. In the low rate scenario, annual revenue district would be \$130,177, with a 15-year total of approximately \$1.9 million. With these rates, a residential property valued at \$150,000 would pay \$150 for a TDD assessment annually. A commercial business valued at \$750,000 would pay \$1,500 for a TDD assessment annually.

In the High Rate scenario, the rates were \$1, \$2, or \$4 per 1,000. Agriculture properties were assessed at \$1 per \$1,000; residential, community service and vacant were assessed \$2; and commercial and industrial were assessed \$4. In the high rate scenario, annual district revenue would be \$255,683, with a 15-year total of approximately \$3.8 million. Using these rates, a residential property valued at \$150,000 would pay \$300 for a TDD assessment annually. A commercial business valued at \$750,000 would pay \$3,000 for a TDD assessment annually.

The 15-year repayment period was established for demonstration purposes only. In the table above, the district revenue generated over that time period is provided for both rate scenarios. The 15-year revenue figures were based on constant property values and did not



factor in any rate changes. If a municipality pursued this funding strategy, the actual period of assessment and rate schedule would be established in the district regulations.

General Development / Traffic Mitigation Fee

Some communities have general development fees to offset the costs of the required infrastructure enhancements and increased community development demands (e.g. recreation) that are often spurred by development. Another funding strategy involves communities establishing a traffic mitigation fee as part of the municipality's environmental review process. For the purposes of this test case, we assumed the Town could charge up to \$1.50 per gross square foot of developed commercial space, based on fee structures from

other communities. This one time development fee generates enough revenue to cover about 11 percent of the project cost. A significant increase to the per SF fee would be needed to cover the project costs (approximately \$10.70/sf), which would only be detrimental to development in the area. Furthermore, given the new road's potential benefit to the broader area, it may not be feasible to expect the new development to foot the entire cost of the project.

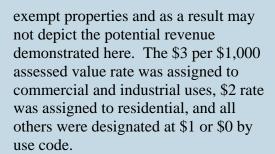
General Development	/ Traffic Mitigation Fee
Test Case Assumptions	
Estimated Project Cost	\$8,560,000
Estimated Commercial Space	
Available (sf)	600,000
Potential Funding Sources	
Anticipated Town Share (10%)	\$856,000
Grants and other sources (15%)	\$1,284,000
Traffic Mitigation Fee (\$1.50/	
square foot)	\$900,000
Total Revenue Generated	\$3,040,000
Additional Funds Needed	-\$5,520,000

The Town would need to charge \$10.70 per square foot of space to offset the total cost of the construction.

Another option would be to base the traffic mitigation fee on trips generated by the proposed development. Some communities outside New York State have established a flat fee per peak hour. For example, in Mill Creek, WA, the City assesses a flat fee of \$2,900 per peak hour trip generated by a proposed project. When you adjust for cost of living differences, a comparable rate for Batavia would be approximately \$1,940 per peak hour trip generated. Utilizing the estimated trip generation in the project area (2,980) peak hour trips, trip-based fees would generate approximately \$5.8 million in revenue, which would cover approximately 68 percent of the project improvement cost. If the Town opted to pursue this approach, a more accurate per peak hour trip fee schedule would be developed based on further study of potential development and a comprehensive review and cost analysis of proposed transportation network improvements.

Town-wide Transportation Tax

Added to the overall property tax, a transportation tax would likely be levied according to property use classification categories. This would help to ensure that properties that have a higher impact on the transportation network pay a higher rate in the property tax formula. For simplicity sake, four possible rates were assigned per \$1,000 of assessed value: \$0, \$1, \$2, or \$3. Because this is a planning level demonstration, we used the property value information provided in Table 3.2. It is likely that the numbers do not accurately reflect tax



The potential revenue increases or decreases proportionately to property values. For the purposes of this test case, we assumed constant property values for the first five years, based on 2009 data. We then increased the property values by three percent across all property classes and assumed constant value for the next five years.

Town-wide Tax				
Test Case Assumptions				
Estimated Project Cost	\$8,560,000			
Estimated Commercial Space (sf)	600,000			
Potential Funding Sources				
Anticipated Town Share (10%)	\$856,000			
Grants and other sources (15%)	\$1,284,000			
Tax Revenue - Year 1-5 *	\$2,354,000			
Tax Revenue - Years 6-10**	\$2,424,500			
Total Revenue Generated	\$6,918,500			
Excess Funds Available	\$-1,641,500			
* Constant Property Value (2009 Assessment)				
** Constant Property Value incre	eased 3%			

Using these figures, a residential property valued at \$150,000 would pay \$300 in transportation taxes annually. A commercial business valued at \$750,000 would pay \$2,250 in transportation taxes annually. Once the Town determines an acceptable tax increase that property owners would be willing to absorb to pay for transportation improvements, a more accurate annual revenue estimate could be determined.

Future Considerations

The structure and mechanisms for any of the future funding strategies adopted by the Town, City or County would need to consider the distribution of costs and ensure that fees are assessed as fairly as possible. In some communities, assessments are only levied on new developments that rise above certain thresholds (e.g. major subdivisions and commercial/industrial developments larger than a certain square footage/acreage).

The Town, City, and/or County should also maintain flexibility to waive the assessments and/or fees if the developer will make specified improvements directly. In many cases, developers may prefer to make direct improvements since there would likely be economies of scale associated with the onsite improvements needed for a nearby development project. That flexibility has paid off in in Mercer County, N.J. They have yet to levy a TDD assessment because in all of the cases where proposed developments would have triggered an assessment the developer in question made the required roadway improvements as part of their project. In that community, the TDD assessment has been utilized as a bargaining tool by which the communities and developers determine mutually agreeable solutions to get what each party needs to advance well-design development and transportation infrastructure.

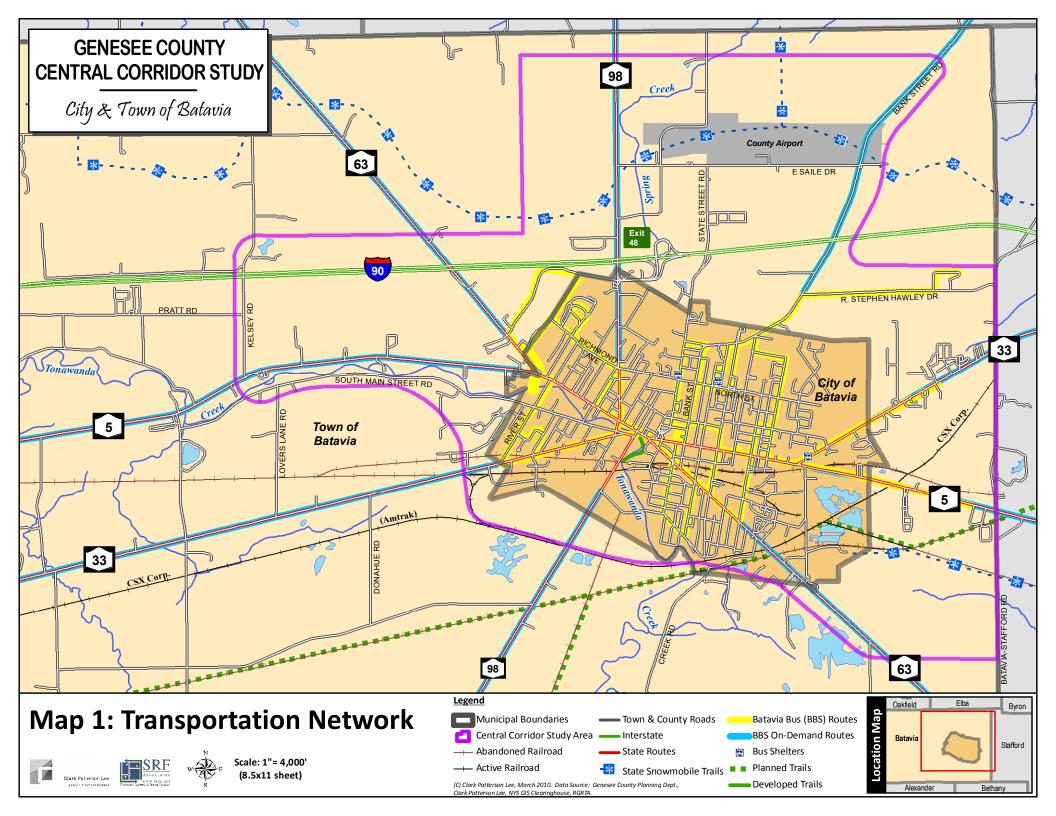


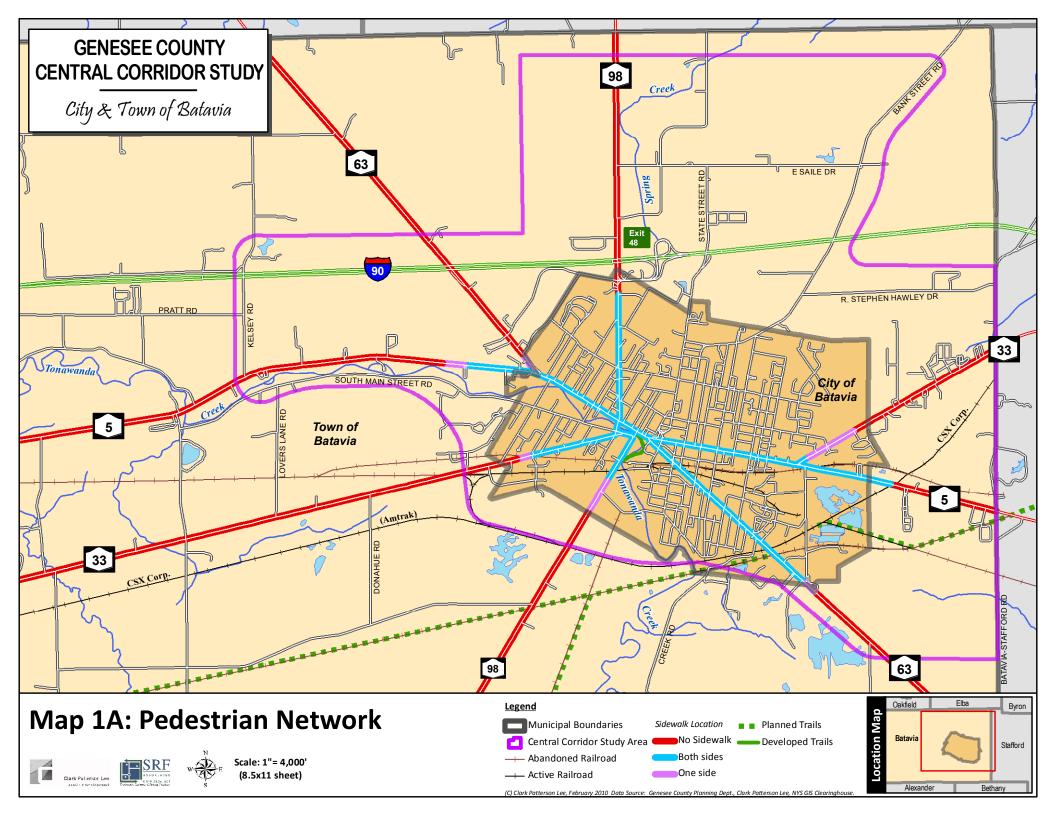
Prepared By: Clark Patterson Lee DESIGN PROFESSIONALS

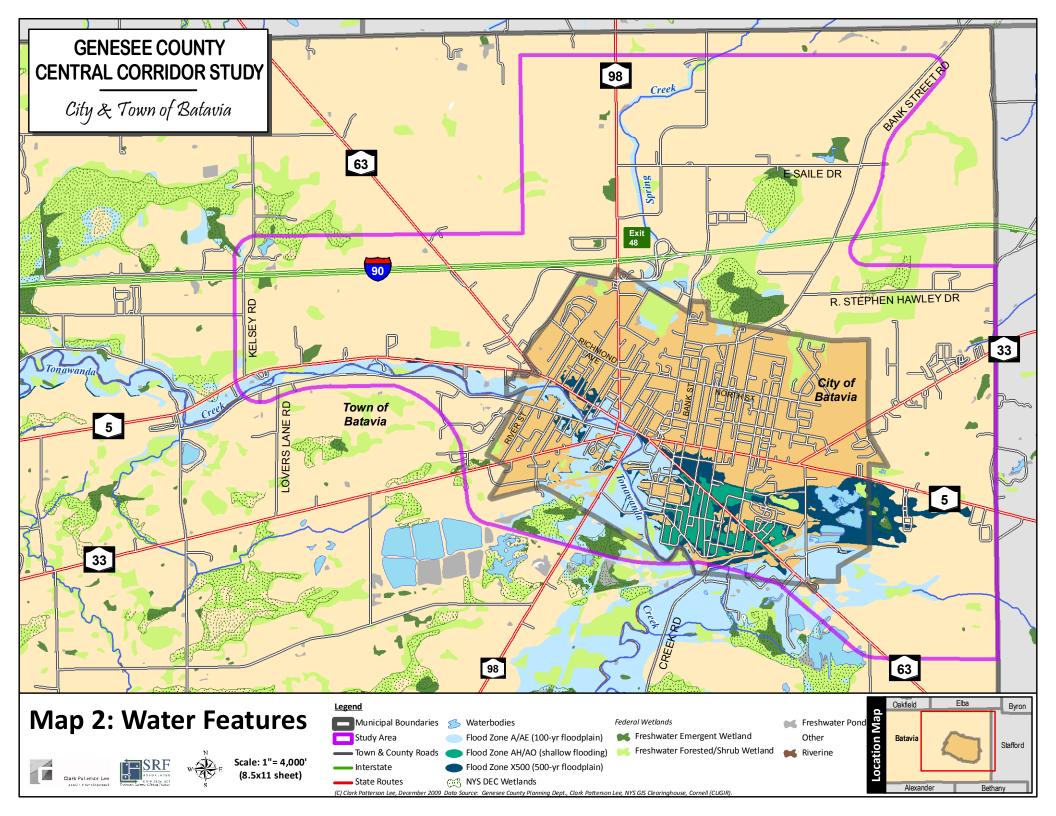


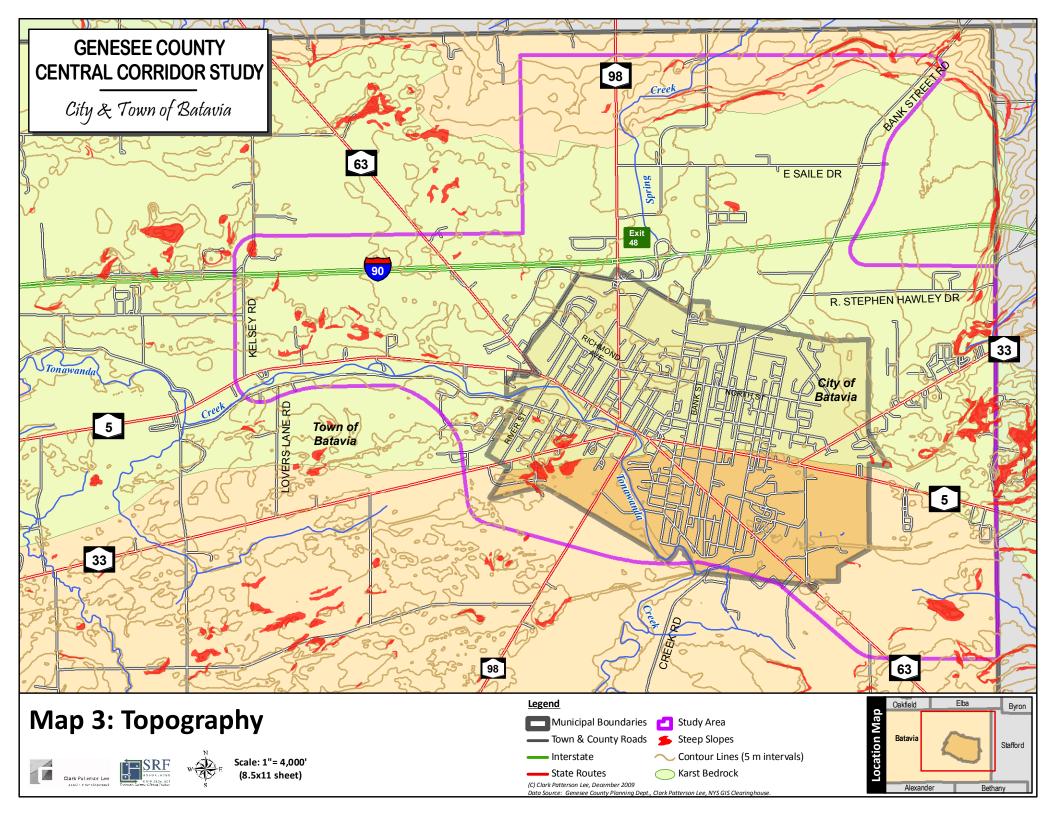
Appendix A

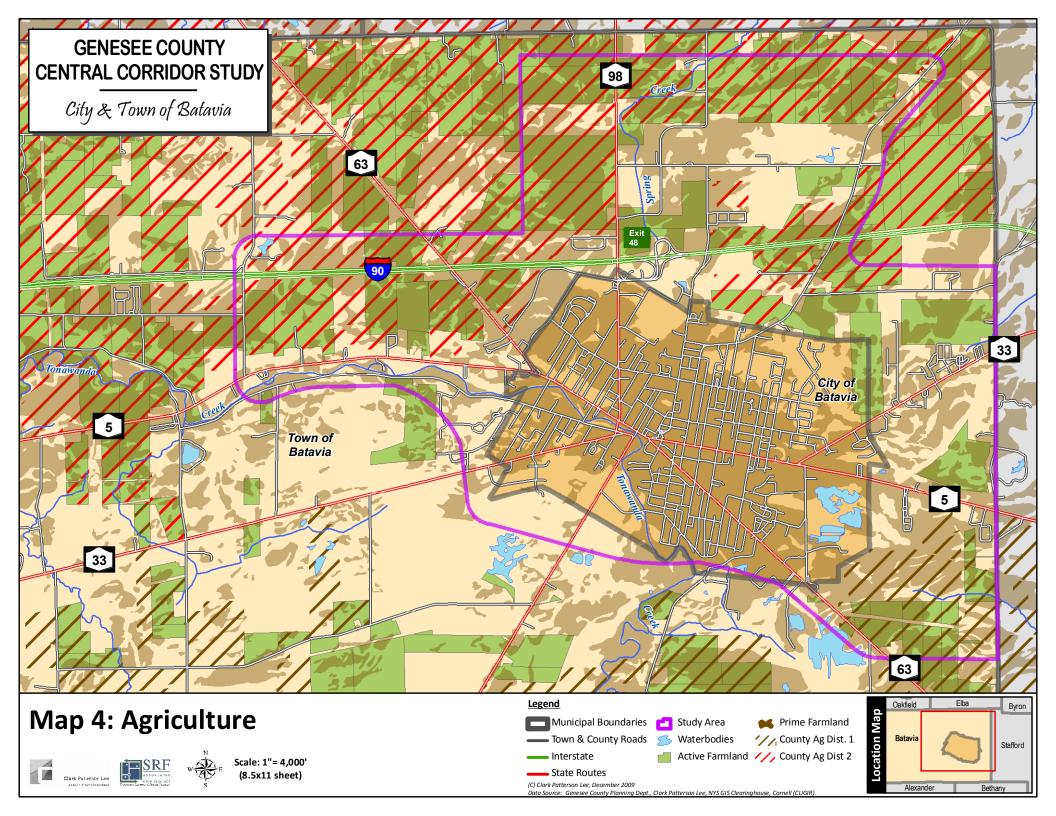
Study Area Maps

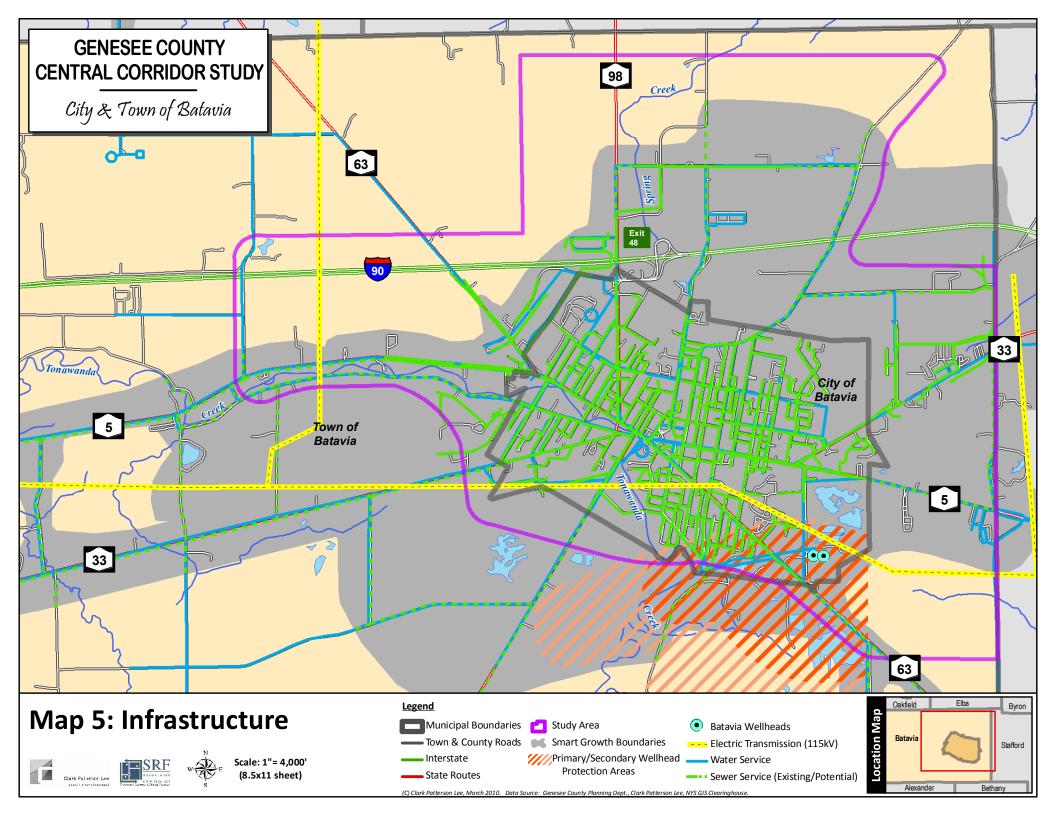


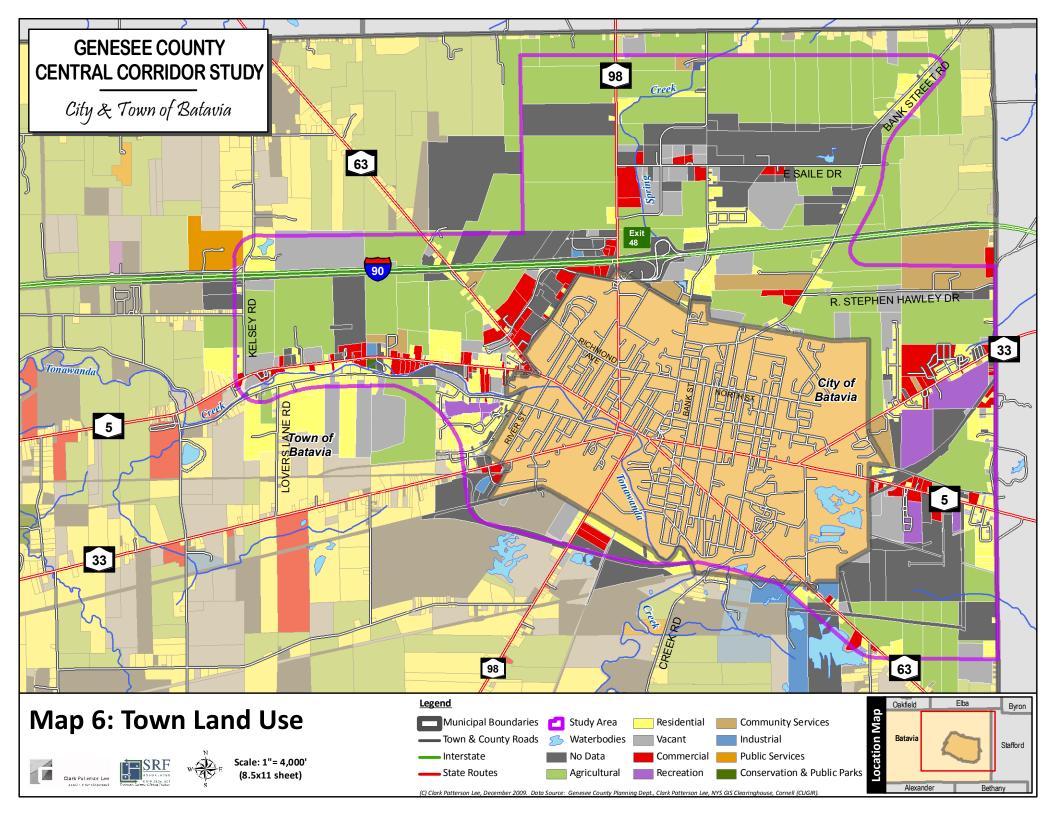


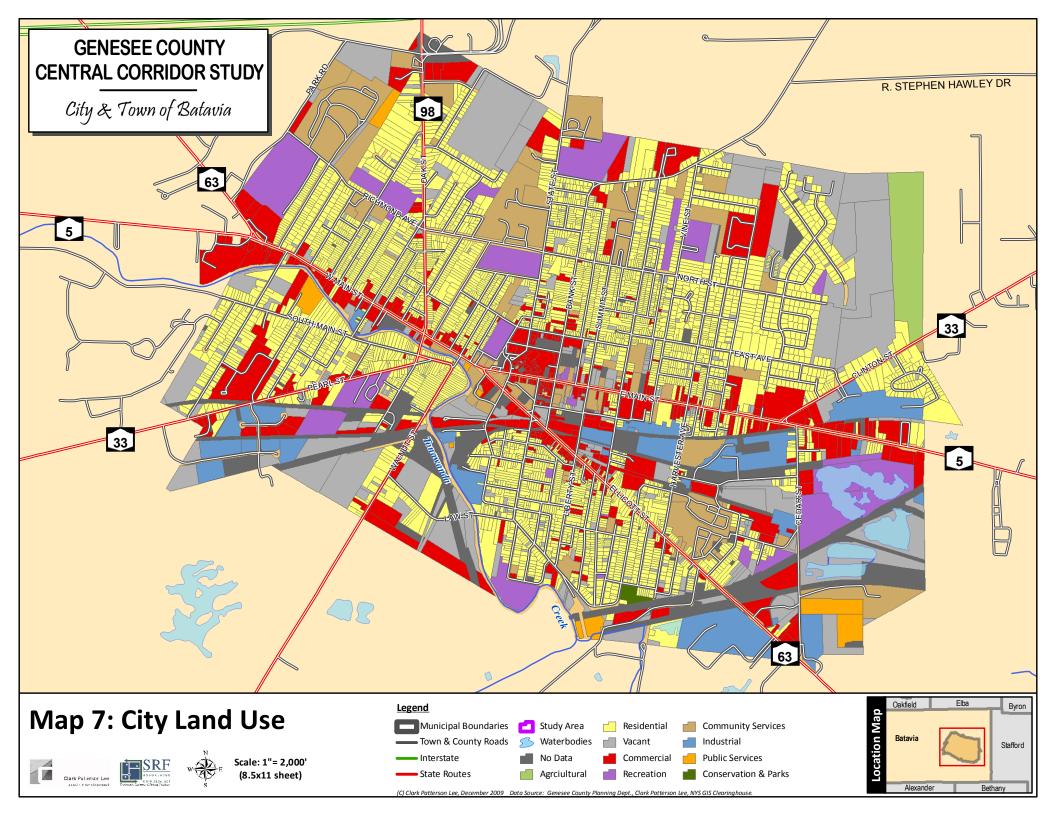


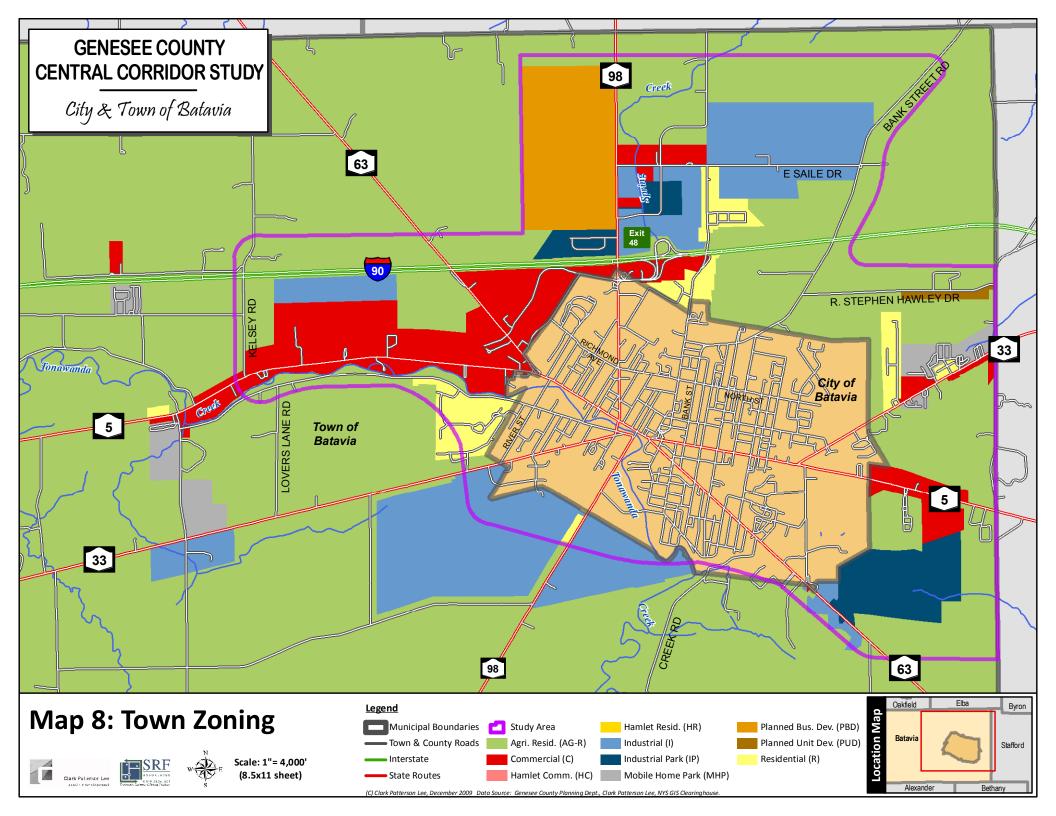


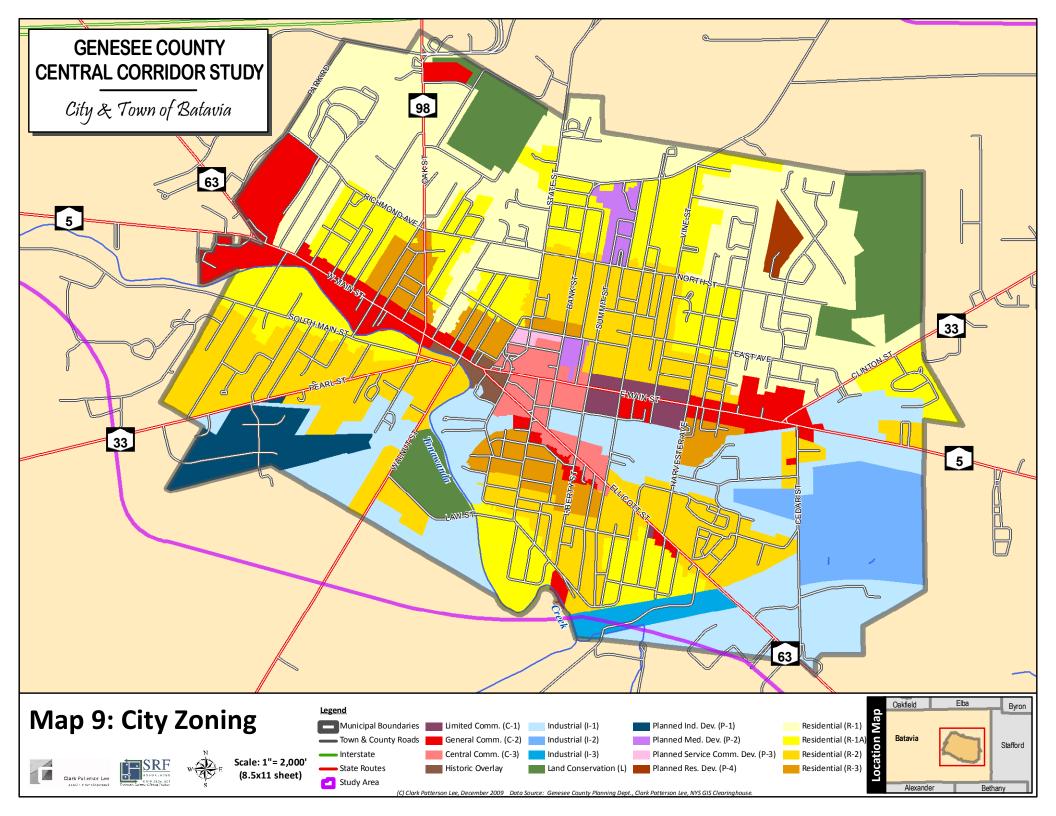


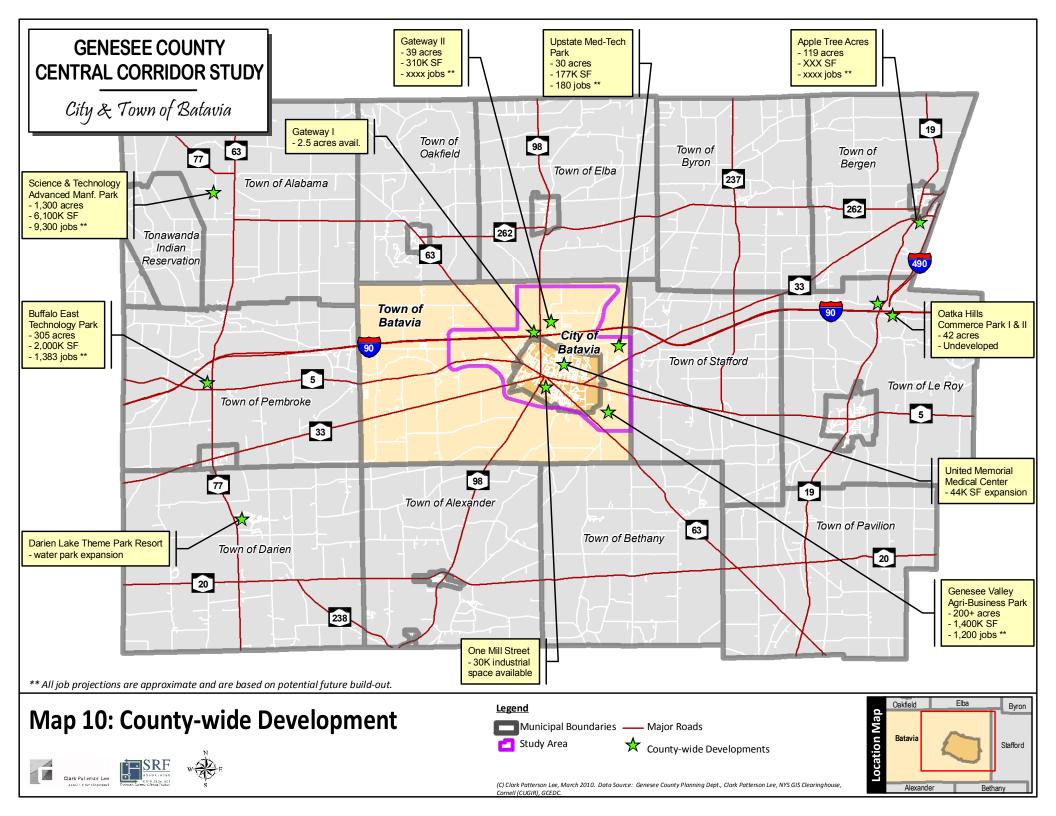


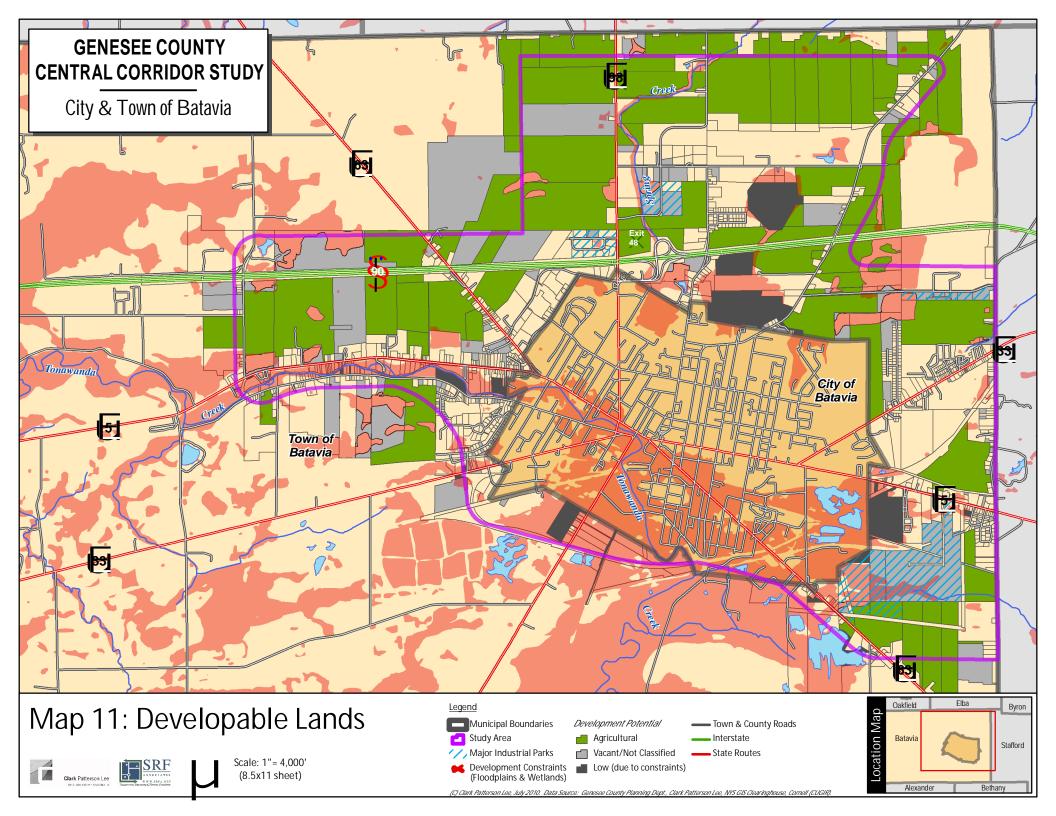


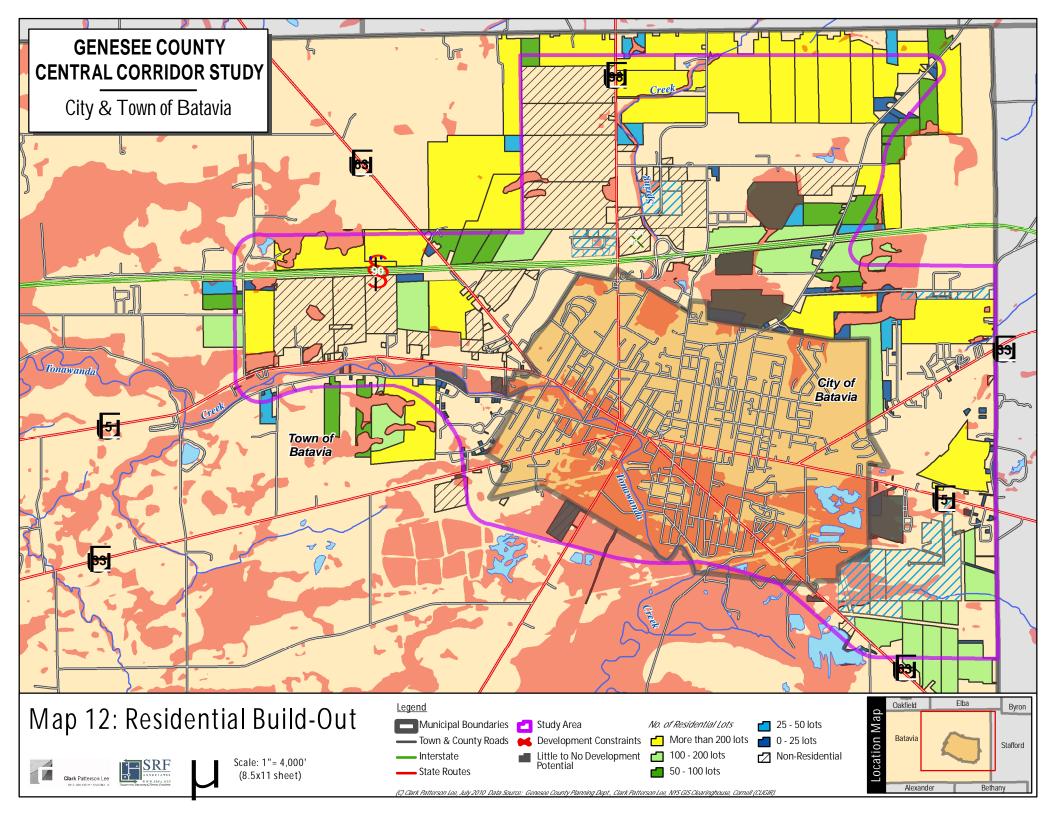


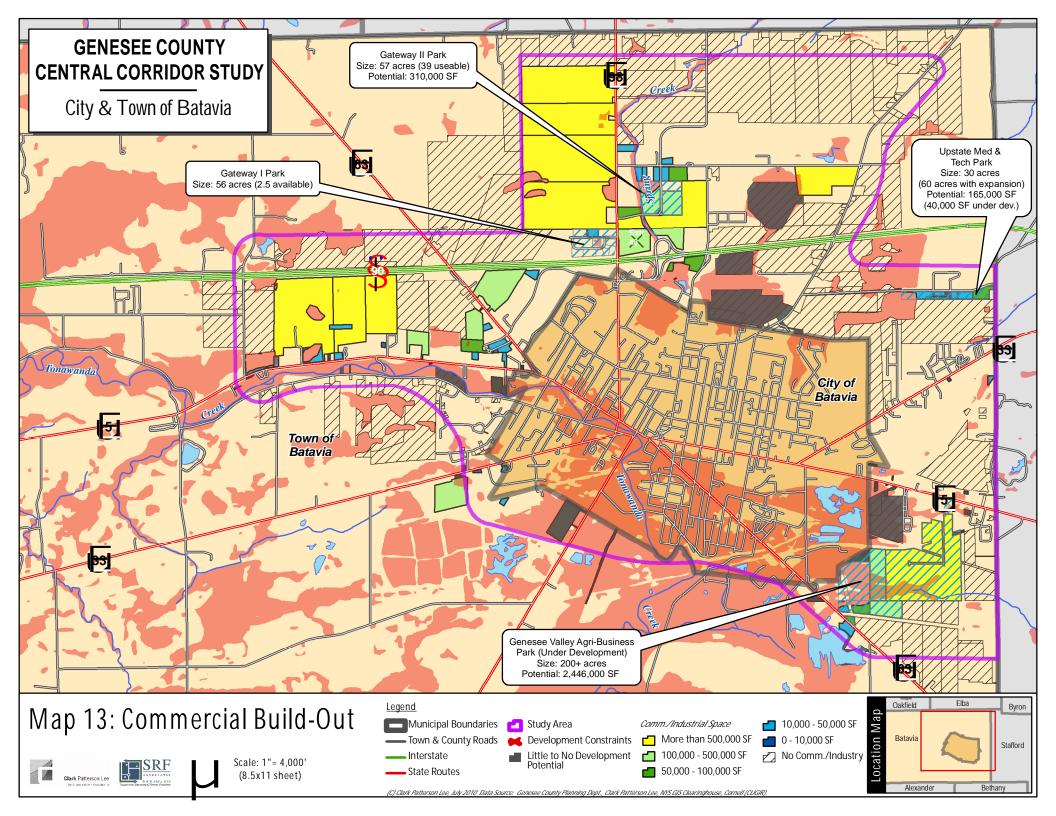














Appendix B

Detailed Transportation Data



TRAVEL DEMAND MODELING FOR EXISTING CONDITIONS

Regional Traffic Forecasting Model Development

A responsive Travel Demand Model (TDM) for the Town of Batavia was developed and validated for use in evaluating existing travel conditions and forecasting future travel demand. In order to develop the existing model, both the household and the employment data were used as the input. For this study, Traffic Analysis Zone (TAZ) layers were constructed from census block group level to enable the model to be more focused on a local level. The existing model contains 23 internal (within the study area) and 28 external zones (locations where traffic enters and exits the study area) covering the Town and City of Batavia.

The trip generation variables used in the model are households in three income level (low, mid and high) along with three categories of employment for central business districts (CBD). The trip distribution model uses a gravity model to estimate origin/destination tables. The network included all major roads and some local roads. The model was developed for the PM peak period. The model consists of the following steps: trip generation (how many trips), trip distribution (the flow of trips) and traffic assignment (which roads).

Data Sources, Analysis and Forecasting

In order to conduct the travel demand model process, data was collected from various sources and processed as factors and inputs for the travel model analysis. The travel demand model requires inputs such as regional socioeconomic and demographic data, roadway and land use characteristics, person and vehicle trip data, and travel time and other impedance factors.

Data from several sources were integrated into a common format to be used in Transcad. The data sources included: household data from the U.S Census Bureau, employment data from manta.com and dnb.com and street layer data from Topologically Integrated Geographic Encoding and Referencing system (TIGER) Data file and Genesee County Department of Planning. The existing roadway lanes and posted speed limits within the study area were collected by SRF & Associates (SRF) during the field verification.

The employment data obtained from manta.com and dnb.com websites were checked for accuracy and were geocoded using ArcGIS software. For each TAZ, total households in three income level (low, mid and high) and the employment in three groups (retail, service and other) were input into excel for the 2009 base year to estimate the total productions and attractions. The productions (exiting) and attractions (entering) for each TAZ zone were estimated based on the household and employment data using the parameters and formulas contained in the NCHRP Report 365 "Travel Estimation Techniques for Urban Planning". The total trip productions and attractions were then assigned to the respective zones.



Traffic Analysis Zones (TAZ) & Centroid

TAZ's typically in the size of census data boundaries are geographic areas dividing the planning region into relatively similar areas of land use and land activity. Zones represent the origins and destinations of travel activity within the region. As it is not computationally feasible to represent every household, place of employment, shopping centers, and other activity as a separate origin and destination, these entities are first aggregated into zones and then further simplified into a single node called a centroid.

A centroid is a point that represents all travel origins and destinations in a zone. Each centroid, or loading point, must be connected to the highway systems. For each TAZ, number of household and the total employment in that zone were developed for the base year of 2009. There are a total of 23 internal zones (within the study area) and 28 external stations (locations where traffic enters and exits the study area).

Roadway Network

The network within the study area includes all major and some local roadways within the Town of Batavia. The highway network obtained from Genesee County Department of Planning was imported into Transcad standard format file. Each link in the network was then coded with a facility classification (freeway, major or minor arterial), number of exclusive lanes in the direction of travel, the free-flow speed, and the hourly per-lane capacity of the roadway.

Each intersection, referred to as a "node", is assigned a unique number and is connected to adjacent intersections. The section of street between nodes is referred to as a "link". The connection between TAZs and the road network are represented by special links called "centroid connectors." Total travel time between any pair of traffic zones consists of the sum of the travel times for all links traversed.

Traffic Count Data

SRF & Associates (SRF) conducted weekday PM peak hour traffic counts at most of the high volume intersections (see the Study Area and Existing Highway Conditions section). Traffic volumes at the external cordon points in the Town of Batavia were obtained from the NYSDOT traffic volume report 2007. Traffic count data at some of the local intersections were obtained from projects done by SRF in the past.

Using these collective inputs, a TDM for the study area had been developed that contains transportation network, household and employment data. The demand model was replicated to the existing conditions (i.e. demographics, traffic volumes, and traffic speeds).

Travel Demand Model Development

The development of travel demand models can be divided into four basic steps—trip



generation, trip distribution, mode-choice and traffic assignment. The first step, trip generation, involves estimating the number of trip ends generated in (productions or exiting trips) and attracted to (attractions or entering trips) each traffic analysis zone. Each trip on the street network has both an origin and a destination. In this fashion, each trip is defined by two trip ends, one being a production and one being an attraction.

The second step, trip distribution, involves the distribution of the trip ends between all possible zones, which is accomplished by a mathematical trip distribution (gravity) model. This model suggests that the frequency of trip interchange between zone pairs is directly related to the number of productions and attractions in each zone, and inversely related to the travel time between them.

The third step, traffic assignment, is the assignment of vehicle trips to the roadway network, which is accomplished by selecting the route with the lowest travel time.

Step 1 - Trip Generation

Trip generation models estimate the number of trips that begin or end in a zone without identifying where the other ends of these trips are located, which is the function of the trip distribution model. Trip-generation models consist of two submodels that include trip-production and trip-attraction models. Trip productions are the trip ends associated with the traveler's home. Trip attractions are the trip ends associated with the non-home end of the trip, such as workplace.

These models are stratified into three trip purposes: home-based-work (HBW), home-based-other (HBO), and non-home-based (NHB). For the two types of home-based trips, trip productions refer to the home end of the trip, and trip attractions refer to the non-home end of the trip. For non-home-based trips, trip productions and attractions refers to the non-home end of the trip.

For each internal TAZ, total household and all the employment related information within each zone (either square footage or total driveway trips) were input into a computer spreadsheet for the 2009 base year to estimate the total productions and attractions.

The estimation of trip productions using disaggregate travel-demand models typically uses a cross-classification of household size data with income. For this study, the trip production rates were calculated by using the average value of the region, stratified only by household income. The trip attractions were calculated on the spreadsheet using the type of employment (specifically retail, service and other employment) and the total households for each of the 23 TAZs. For all the internal zones, the total number of internal trip productions and attractions in the region totaled 75,769 and 73,735.

External travel consists of three types of trips, external-external (E-E), internal-external (I-E) and external-internal (E-I). External-external trips are trips that pass through the



entire study area without making a stop. External-internal and internal-external trips are those having one end of the trip inside of the study area and the other end outside of the study area. The trips at these cordon points were obtained from the NYSDOT traffic volume report 2007 and external trips (E-E, I-E, and E-I) were estimated based on parameters and formulas contained in the NCHRP Report 365 "Travel Estimation Techniques for Urban Planning".

Table B.1: Unbalanced Trips						
	Productions Attractions					
	HBW HBO NHB H				НВО	NHB
Internal Trips	15,154	43,188	17,427	22,360	30,479	20,895
External Trips	17,390	25,391	10,458	8,539	18,732	10,458
Total	32,544	68,579	27,885	30,899	49,211	31,354

The total numbers of productions and attractions are summarized in Table B.1. The last step in the trip generation is the balancing of trip productions and attractions. The trip distribution phase of the travel demand requires that the total number of productions equals the total number of attractions for each of the trip purposes.

The balancing process is accomplished y applying a balancing factor to the attraction trips for all internal TAZs. The balancing factor is designed to change the total number of internal attractions so that the total number of attractions, including external stations, equals the total number of productions. After the balancing factors are applied, the total numbers of productions and attractions are summarized in Table B.2.

Table B.2: Balanced Trips						
		Productions	5	Attractions		
	HBW HBO NHB			HBW	НВО	NHB
Internal Trips	15,154	43,188	17,427	24,005	49,847	17,427
External Trips	17,390	25,391	10,458	8,539	18,732	10,458
Total	32,544	68,579	27,885	32,544	68,579	27,885

Step 2 - Trip Distribution

Trip Distribution is the second major step in the travel modeling process. Once the number of trips emanating from a zone has been estimated by the trip production models, distribution models must be developed to distribute them among the trip attractions in the other zones. The one used for this study is the gravity model. The gravity model predicts that the relative number of trips made between two TAZs, is



directly proportional to the number of trip ends in each TAZ and inversely proportional to a function of the spatial separation.

The trip-distribution process is usually implemented in two steps. The first step is the estimation of friction factors based on the existing travel times. The second step uses the gravity model to distribute the trip productions and attractions estimated by trip generation.

The free-flow zone-to-zone travel time matrix was constructed using the posted speed limit on each link in the Batavia highway network. The free-flow travel times were calculated based on speed and distance only. TransCAD was used to produce the matrix for travel times based on the minimum time path between each pair of zones. The interzonal travel times, which represent the travel time required to make a trip wholly within a single TAZ, was produced using the nearest-neighbor method and added to the original travel time matrix.

The gamma function was used to calculate the friction factors that represent the travel impedences between zones in the trip distribution gravity model. The friction factors for the three trip purpose used in this study were based on NCHRP Report 365 - Table 14.

Table B.3: Coefficients of Friction Factors used in the model						
	a b c					
HBW	28,507	-0.020	-0.123			
НВО	139173	-1.285	-0.094			
NHB	219,113	-1.332	-0.100			

Source: NCHRP Report 365 (Table 14 - Page 51)

The final trips distributed between zones are already in origin-destination format (O-D) during the PM peak hour.

Step 3 - Mode - Choice Analysis

Because Transit usage in the Batavia region is so small, we did not use a mode-choice model component in this study.

Step 4 - Traffic Assignments

The hourly vehicle trip table from the previous step was assigned to the base highway network using an equilibrium assignment. The traffic assignment model determines which route the trips take to get from the origin zone to the destination zone. Traffic



assignments were made using a User Equilibrium (UE) technique.

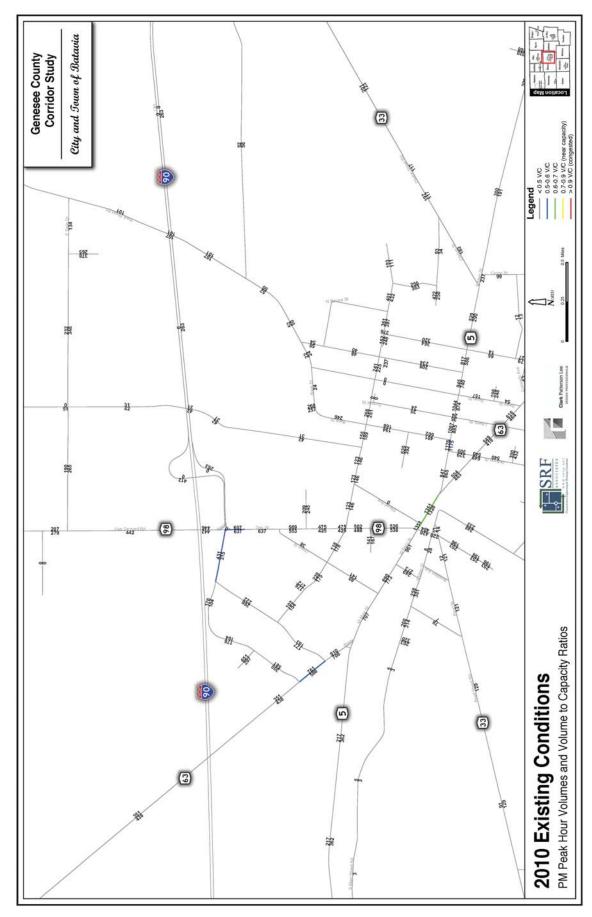
The behavioral assumption of the User Equilibrium method is that each vehicle travels on the zone-to-zone path that minimizes that vehicle's generalized cost of travel. This choice rule implies that, at equilibrium, the link flow pattern is such that the travel times on all used paths connecting any given Origin-Destination pair will be equal; the travel time on all of these used paths will also be less than or equal to travel time on any of the unused paths. At this point, the network is in user equilibrium. This method is formulated as an optimization program, which converges toward the equilibrium condition through iterative adjustment of link volumes for each vehicle class. UE provides a stable and consistent method for traffic assignment.

The figure at right shows the existing traffic volumes and volume/capacity ratio that is color coded in the study area. The figure clearly illustrates that there are no major deficiencies in any of the street links based on the existing PM peak hour traffic volumes.

Summary and Conclusions

The comparison of estimated trips with observed traffic counts crossing various sections throughout the study area confirms that the model is in close agreement with actual year 2009 conditions, and attests to the ability of the travel demand models to recreate the future travel patterns.







Appendix C

Representative Corridor Images



The following pages highlight the general types of land uses and structures that are found along the various roadways in the corridor. A brief description of the use and condition of the surrounding infrastructure (roadway, sidewalk, drainage, etc.) is also included. Unless indicated otherwise, images are arranged from east to west or north to south.

STATE ROUTE 5



East of the City of Batavia, Route 5 begins as a four lane roadway and is lined with a mixture of residential and agricultural uses. Shoulders are wide (6-10 feet) and are utilized by pedestrians or bicyclists. Pavement is generally in good condition with slight longitudinal cracking observed; drainage is provided by roadside ditches.

(Pictured here: Route 5 near Seven Springs Road)



In the Town, large lot light industrial, public service, and commercial uses are located just outside of the City line. Many of the structures are setback some distance from the road with parking areas primarily along the front. Although no sidewalks exist in this area, properties are buffered from the roadway with greenspace.

(Pictured here: Genesee County Mental Health Services)



Another example of a light industrial/public service use that is found in the Town along the eastern section of Route 5.

(Pictured here: National Grid)



Several car dealerships are also found along Route 5 in the Town. Surface parking consumes a significant portion of the lots and there is limited landscaping of buffering from the roadway. Buildings are limited in their design as well.

The Mike Ognibene dealership (shown here) is a large lot that is currently vacant.



The Genesee County Fairgrounds occupies a large section of land off of Route 5 and is a regional draw during the summer months.





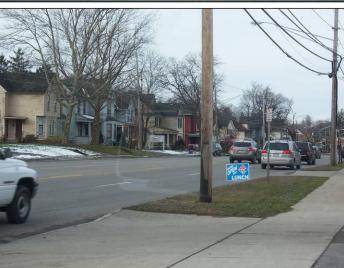


The Genesee Valley Agri-Business Technology Park represents one of the larger industrial parks in the study area. No structures are built and utilities are slated to be installed.

The development of this site has the potential to increase traffic volumes and truck traffic. Additional lanes and traffic control devices may be warranted as the project progresses.



Single-family dwellings are predominantly located farther east, with multi-family apartments and other dwellings closer to the City line. Sidewalks, curbing, tree lawns and present approaching and within the City limits. Shoulders are still present, although much narrower in comparison. Drainage is now provided through catch basins and underground piping. The pavement continues to be in generally good shape, with some cracking and sealing evident.



Within the City limits, Route 5 contains continues past Route 33 as a four lane roadway with no shoulder and sidewalks on both sides. The sidewalks are in generally in good condition and are separated from the roadway with a tree lawn of varying width. Properties have smaller setbacks and narrower lots. Pavement continues to be in generally good condition with minimal longitudinal cracking.



Some of the structures, although residential in appearance, are converted to commercial uses. Many of the structures, whether residential or commercial, reflect various designs and are much more ornate. Street trees are more prominent where residential structures exist. On-street parking is provided on both sides of the street and a fifth, center lane is provided for dedicated turning.



400 Towers is one of the taller structures found in the City of Batavia; the majority of the structures in the study area are approximately three stories high or less. The Batavia Housing Authority operates this facility for seniors and those with disabilities. Frontage landscaping and vegetation is more prevalent and setbacks are much closer in comparison to sections farther east.



Recent transportation improvements to Route 5 include the installation of curb bumpouts (bottom left, just outside of this image) and mast arms for traffic signals to replace wire spans.







More recent retail strip plazas have incorporated more distinctive color palettes, higher amounts of glazing (windows), and better signage. Site landscaping is sporadic and minimal. Surface parking is still front-loaded and pavement conditions vary.



The center raised, landscaped median was one of the primary improvements that were undertaken during the Main Street (Route 5) roadway improvement project. In addition, new decorative lighting, sidewalks, street trees/landscaping and striping were included to enhance the downtown environment and promote increased pedestrian activity.



Many of the structures within the central business district are two to three stories in height, have a zero front setback, a high percentage of first floor windows, and a lot of architectural detail. Some structures are mixed vertically with offices or residential uses on upper floors. Pavement and infrastructure is still in generally good condition and on-street parking is allowed on both sides of the road.



Another example of the style of non-residential buildings that are found in the central business district.



The sidewalks are separated from the roadway with a strip of brick pavers that contain decorative lighting and occasional street trees. Pedestrian amenities, such as trash cans, benches, and bike racks, are included. Sidewalks in this area are much wider than other areas, approximately 10 feet wide, to facilitate greater pedestrian activity.



In some areas of high traffic volumes, such as the intersection of Route 5 and 63, crosswalks have slowly begun to deteriorate and become faded. Pavement conditions continue to be in generally good shape.







West of the central business district, uses become more varied with a mix of single-family residential and commercial structures. Less building massing, deeper setbacks, lower heights give the corridor more of a suburban feel. Roadway improvements beyond the central business district were minimal. Pavement continues to be in good condition, ADA-compliant sidewalks are located on both sides of the street, separated from the roadway by a tree lawn with occasional trees.



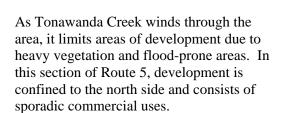
Near the Route 5 and 63 split, big box and strip plazas become the predominant commercial style again. Large setbacks, front-loaded parking lots, and minimal landscaping and architectural features are common among many, but not all, of the properties. The roadway through this area expands to five to six lanes to accommodate dedicated turning lanes for high-traffic areas.



Internal circulation of some plazas indicates poor cross access with non-intersecting roadways and various parking configurations.



Continuing as a four-lane roadway west of Route 63, Route 5 widens to include a four to six foot wide shoulder. Drainage is still provided through catch basins and underground piping. The sidewalks continue along both sides of the road before ending on the south side approximately 1,000 feet outside of the City line. The pavement continues to be in good condition. Land uses consist of a mix of single-family residential and some commercial properties. Setbacks are much larger, although the amount of vegetation is also greater.





Where the sidewalks end along Route 5, shoulders become wider (eight to ten feet in width) with larger property setbacks for roadway drainage. Many properties have multiple access points, large amounts of pavement, and vary in setback. The pavement exhibits some longitudinal cracking with sealing and edge cracking along the shoulder.







Route 33 begins as a two lane roadway near the Town line with wide shoulders (6-10 feet wide) and no pedestrian facilities. Pavement condition is generally good with cracking observed near the edges.

Uses are mixed, but predominantly commercial, with various setbacks and no distinct style or character noted. Parking is mainly in the front of properties.

(Pictured here: Route 33 near Seven Springs Road/Batavia-Stafford Townline Road)



Some of the newer residential developments consist of townhomes with direct access onto Route 33. Buffering between the roadway and dwellings are limited in this location. Where single-family dwellings are situated, lot sizes are much wider and deeper.



Terry Hills Golf Course occupies a large swath of land on the south side of the roadway and provides recreational opportunities for the region. Large setbacks are typical for most developments along Route 33.



Several manufactured home communities are located along Route 33 between Stringham Road and Townline Road. Within the study area this is the only location where mobile/manufactured homes are permitted in accordance with zoning.



Parking areas for commercial businesses contain little, if any, buffering against the roadway and typically include numerous wide access points. The pavement continues to be in generally good condition and no pedestrian facilities exist.



Grandview Cemetery is another large land use along the roadway. The large number of trees and vegetation provides aesthetic and visual interest to motorists. The City line is west of the cemetery.







Within the City limits, residential uses are situated on deep but much narrower lots. The roadway continues to be in good condition and the shoulder narrows significantly to approximately 3 feet wide. Sidewalks begin at the City line, although are limited to one side of the roadway for a short distance.



Commercial businesses and strip plazas become the predominant uses approaching the intersection with Route 5. Tree lawns and sidewalks buffer uses along the roadway. Storm drainage is provided through catch basins and underground piping.



Retail plazas are "strip" style and consist of limited architectural features and wide, expansive parking areas. Pavement conditions within the parcels is in poorer condition in comparison to the corridor roadways.



Transportation improvements at the Route 33 and 5 intersection included high-visibility crosswalks, new traffic support poles, and sidewalks and islands with curbing and brickwork. All of these features are in generally good condition.



* From this point, Route 33 continues westward overlapping Route 5. For ease of describing the various roadways in the corridor, this overlap will be highlighted in the Route 5 section. The following images describe Route 33 after the roundabout at Pearl Street, south of Tonawanda Creek.

The roundabout at the intersection of Route 33, 98 and Pearl Street was completed in 2009. As such, the pavement is in very good condition. The area includes landscaping, decorative lighting, sidewalks, crosswalks, and pedestrian refuges between lanes. Some of the pavement markings, especially the crosswalks, have slowly begun to fade, although they are still visible to motorists. This section of Route 33 is predominantly single-family residential with narrow lots.







The corridor contains few dedicated, public recreational areas. Williams Park, located along Route 33, is one such facility that provides passive and active recreation to residents in the area.



Single-family residential uses are the predominant uses on the north side of the roadway. These homes are in relatively good condition and are situated on narrow lots with smaller setbacks. Lots become larger with deeper setbacks on the outskirts of the City and in the Town. Sidewalks are present on both sides of the street as are tree lawns to buffer the roadway.



As Route 33 leaves the City and enters the Town, commercial or light industrial uses occupy the south side of the roadway, as evident with the Batavia Industrial Park shown here. The locations of the buildings take advantage of the rail spur that bisects the park. Structures are much larger in size with larger parking areas. Little vegetative buffering exists between the properties and adjacent to residential uses.



In addition to single-family residential dwellings on single lots, a large apartment complex is also located on the north side of Route 33. The complex includes large amounts of greenspace, but minimal landscaping or dedicated recreational amenities. The buildings are basic concrete block design with some structures that include gabled roofs, siding, and shutters.







Route 63 begins in the eastern portion of the study area as a predominantly agricultural area with scattered residential dwellings. Homes are generally part of or subdivided from agricultural lands and are older. Setbacks are deeper and roadside vegetation exists throughout.

A two-lane road with wide shoulders (6-8 feet wide), the pavement is in generally good condition with longitudinal cracking evident along seams. Drainage is accomplished through roadside ditches.



Grassland and brush, as well as forested areas and wetlands flank Route 33. In addition, due to the larger lot sizes, billboards are occasionally found alongside the road.



Bordering and within the City, large commercial and industrial uses line Route 33. Lots are much larger in size, with parking areas of equal size. Setbacks are much greater and buffering against the roadway consists of grass. The structures consist of pole barn-type and concrete block construction.



Straddling both sides of the corridor, the O-At-Ka Milk Products Cooperative is a large industry in the Town and City supported by the many dairy farms in the region. Industrial by nature, the complex is expansive and consists of various structures including silos, storage buildings, and processing facilities.

Buffering consists only of grass with few, if any plantings.

Commercial uses mix in with residential uses west of the railroad tracks. Some of the commercial businesses, like this used car dealership, are more suburban styled with large parking lots along the frontage and little to no landscaping.





Residential dwellings are the predominant uses along Route 63 from the railroad tracks to Swan Street. The homes, ranging from rental to owned and single—to multi-family, sit on narrower lots and are set close to the property line. Front porches and gable ends are typically found on the facades. Although sidewalks and tree lawns buffer the homes from the road, the streetscape is made up of overhead power lines and few street trees.

Pavement is generally in good condition.







Commercial uses are the predominant uses between Swan Street and the intersection with Route 5. The structures vary from one to two stories and height and range in style and design. Few properties have street trees or a landscaped buffer along their frontage with the majority having full-width sidewalks between the street and property line. On-street parking is allowed in addition to four travel lanes and a center two -way turn lane. Pavement is generally in good condition, although some longitudinal cracking is observed between travel lanes.

* From this point, Route 63 continues westward overlapping Route 5. For ease of describing the various roadways in the corridor, this overlap will be highlighted in the Route 5 section. The following images describe Route 63 near Batavia Downs and Tops Supermarket.



Internal circulation of some plazas indicates poor cross access with non-intersecting roadways and various parking configurations. As shown here the travel lane in this interior parking lot does not align with the travel lane farther ahead. The lack of a coordinated access management between properties, coupled with the expansiveness of pavement and lack of internal landscaping, can contribute to accidents.



STATE ROUTE 63

Along Route 63, following the Route 5 split, the roadway becomes two lanes with a center turning lane and narrow shoulders (three to four feet wide). Sidewalks are found only between the roadway split and Park Road, then terminate. Several big box style retail stores are located in the vicinity, with more along Veterans Memorial Drive. Street trees are more prominent as the parcels become larger and less dense. The pavement is in generally decent condition, with some cracking, rutting and patching evident.

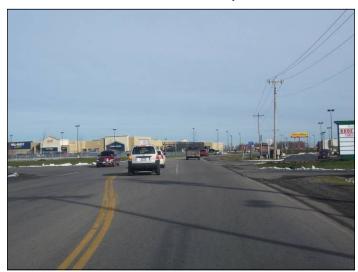
Further west from the intersection with Veterans Memorial Drive and outside of the City, Route 63 becomes a two-lane road and predominantly residential and agricultural. Curbing and catch basins are replaced with wide shoulders and sheet drainage. Longitudinal cracking in the pavement along the pavement markings and slight edge cracking is more evident. Vegetation is also more prominent; sidewalks are not found along this stretch of roadway.







VETERANS MEMORIAL DRIVE (OFF OF STATE ROUTE 63)



Although not one of the State Routes, Veterans Memorial Drive is becoming one of the hotbeds of development, especially with big box developments such as Walmart, Lowes, and Target. Lot sizes along the roadway are very large to accommodate uses and setbacks are equally generous. Landscaping and buffering is minimal. Pavement is in generally good condition, with slight edge cracking evident.



Another view of retail businesses along Veterans Memorial Drive. Deteriorating pavement condition along the edge of the road is evident in this view. The orientation of structures to the roadway also varies, as seen with the Office Max property.

Pavement condition is generally good, although significant edge cracking is observed adjacent to the gravel shoulder.



Veterans Memorial Drive intersects with Park Road and continues eastward to intersect with Route 98 across from the Thruway exit. Due to the Federal wetland and pond on the south side of the road, uses are predominantly found along the northern portion. These uses are primarily autooriented and geared towards travelers (i.e. gas stations and hotels/motels). The streetscape is made up of freestanding signs on grass lawns with little landscaping. The pavement condition is fair to poor with edge cracking, longitudinal cracking and potholes evident.



STATE ROUTE 98

State Route 98 at West Saile Drive, the northern end of the study area, consists of farmland, few residences, and some commercial uses. The roadway consists of two travel lanes with a wide shoulder. The few commercial uses in this area are prefabricated structures and are setback back 50 feet of more from the right-of-way. Pavement is generally in good condition.



Active farmlands are found predominantly between West Saile Drive and the Thurway.



Two industrial parks are also located on Route 98, including Gateway II Corporate Park, which is under development. During the development of this report, the park's access road was the only feature constructed. As highlighted in the Corridor Study's proposal, future development in this park is dependent upon traffic improvements to Route 98.







Gateway Corporate Park I, located just north of the Thruway, is almost completely built-out. Uses in the park range from commercial to industrial to institutional.

Pavement along this section of Route 98 is in good condition with some small transverse of longitudinal cracking observed.



The NYS Thruway occupies a large area near the intersection with Park Road, which includes the offramp, tollbooth, tractor trailer parking lot (shown here), and DOT Highway Maintenance facility. Route 98 remains a two lane road with wide shoulders prior to the Thruway - a center painted median begins south of the bridge. The bridge, guardrail, and topography provide some buffering to the adjacent uses. However, there is little vegetation beyond with the exception of lawn.



Commercial, auto-oriented uses are found south of the Thruway exit. These uses are set back 50 feet or more from the right-of-way and feature frontage parking lots and grassy buffers. Pavement remains in good condition and the roadway becomes a four-lane road with curbing and sidewalks.



STATE ROUTE 98

Between Noonan Drive and Route 5, Route 98 (Oak Street) becomes residential in nature with suburban style homes (longer setbacks and wider frontages) in the northern portion. Continuing south, homes become smaller and set closer to the property line. Sidewalks, tree lawns and some street trees (located in private property) line the sides of the road. Homes vary in style and design. The pavement continues to be in generally good condition.



Route 98 was recently repaved and restriped to two travel lanes and a wide shoulder between Prospect Avenue and ???



Residential uses continue to be the primary use along Route 98 near Prospect Street with an increasing number of street and frontage trees observed. The street trees and streetside tree lawns add to the character of the area and can help to calm traffic speeds. Sidewalks are located on both sides of the street and connect with residential roads located off of Route 98. The pavement continues to be in very good shape, despite the amount of truck traffic that utilizes the corridor.







South of Route 5 & 33, between Route 98 the railroad tracks, residential is the primary use with homes on smaller lots set closer to the street. The proximity of Tonawanda Creek limits the depth of some of the lots, as shown in this photo. Sidewalks and tree lawns line both sides of the road with street trees located in select locations. The pavement is in very good condition as this portion of the road was repaved following the construction of the roundabout further north.



Continuing south, residential dwellings becomes less frequent and the roadway becomes more rural. Homes or commercial uses are set back farther from the right-of-way, vegetation becomes denser, and the sidewalks eventually end. The roadway is now a four-lane road and is in generally good condition.



Commercial uses consist of pre-fabricated structures and are setback farther from the road. Little landscaping or vegetation is found between the property and road, as shown here. Shoulders begin to reappear and the roadway tapers down to a two-lane road. The pavement is in good condition, with some transverse cracking observed.



Appendix D

Sample Funding Strategy Documents



Transportation Development District

As described in section 8 of this plan, the following pages consist of specific documentation related to Transportation Development Districts (TDD).

- Town Board TDD Plan Resolution #39 (D-2)
 On March 17, 1993, the Batavia Town Board passed resolution #39 authorizing the consulting firm of Nussbaumer & Clarke, Inc. to prepare a map, plan and report for the development of the TDD. The report is the initial step that is undertaken by a municipality in which the benefit area is identified and detailed information about the value of the impacted properties is amassed. Prior to requesting the State enabling legislation, this information, along with a public hearing and municipal resolution, is required. The original proposal outlining the scope of work to be included in the TDD report from Nussbaumer & Clarke, Inc. is included following the resolution.
- Town Board State enabling legislation request Resolution #30 (D-3) Following the completion of the TDD report, the Town Board passed resolution #30 on February 16, 1994 requesting the enabling legislation from the State.
- Support Resolution #51 (D-4)
 The initial draft of the enabling resolution was circulated to the Town for their review and approval in the form of a supporting resolution along with specific documentation from the State. This resolution was passed on April 6, 1994.
- Amending Resolution #94 (D-5)
 A recommendation from the office of Assemblyman Nesbitt was forwarded to the Town in which some of the wording of the legislation was amended to increase the likelihood of the bill's passage and to comply with other similar bills. Resolution #94 supporting this amendment was passed by the Town on June 15, 1994.
- State enabling legislation (D-6)
 The final enabling legislation from the State Assembly authorizing the Town of Batavia to establish a TDD for specific commercial corridor sections of Route 5 (West Main Street Road), Route 63 (Lewiston Road), and Park Road. The legislation is dated March 28, 1994, was recommitted to the Committee on Local Governments and later passed.
- TDD Overview (D-7)
 Ulster County provides a detailed informational document on the process and procedures they had undertaken to establish a TDD/DFID (Development Facilitation Improvement District) in the County. Included in the documentation is the State enabling legislation and the town law authorizing this district.

March 17, 1993 Regular Town Board Meeting Page 4 of 16 Pages.

Extensive discussion was held by the Town Board, Town Engineer Tom Butler, and Planning Board Chairman regarding this resolution.

Resolution 39:

Councilman Lang offered the following:

TRANSPORTATION DEVELOPMENT DISTRICT (T.D.D.)
(LEWISTON ROAD VICINITY)

WHEREAS, the Batavia Town Board and private Developers have recognized the need for Transportation Improvements in the vicinity of Lewiston Road; and

WHEREAS, the establishment of a Transportation Development District (T.D.D.) as a special assessment district would provide taxing authority to raise funds for specific purposes, in this case transportation; and

WHEREAS, Town Engineers, Nussbaumer & Clarke, Inc. have provided proposal to the Batavia Town Board, to give consideration for T.D.D. project plans, financing, mechanisms, project costs, and the proposed special assessment district boundaries.

RESOLVED, the Batavia Town Board hereby authorizes Nussbaumer & Clarke, Inc. proposal for Transportation Development District (T.D.D.), in the vicinity of Lewiston Road, at an amount not to exceed ten thousand, four hundred, fifty dollars (\$10,450.00) and directs the Supervisor to enter into and execute same.

Offered by: Councilman Lang Second by: Councilman Scofield

Ayes: Councilman Lang, Councilman Scofield, Councilman DeLong, Councilman

Gorecki

Nay: Supervisor Vukman APPROVED. (4-ayes 1-nay)

Supervisor stated that the Town was premature in authorizing this resolution.

Resolution 40:

Motion Councilman Scofield, second Councilman DeLong to amend the resolution that the cost is not to exceed two thousand five hundred dollars (\$2,500.00).

APPROVED by unanimous vote. (5-0).

3556 Lake Shore Road Buffalo, New York 14219-1439 (716) 827-8000

134 Water Street P.O. Box 162 Oswego, New York 13126 (315) 342-3010 Buffalo Office Fax: (716) 826-7958 Oswego Office Fax: (315) 342-6114

February 19, 1993

Mr. Francis C. Ripicci Manager, Town of Batavia 4165 West Main Street Batavia, New York 14020

Re: Proposal For Consulting Services Town of Batavia, New York Transportation Improvement District NCI File No. 92-500/06

Dear Mr. Repicci:

In response to your request for a proposal to develop a TDD, we are pleased to offer the following:

Development of a transportation district to distribute the financial obligation of area transportation improvements to parties experiencing the benefit of those improvements and/or creating the need is a somewhat new concept, but apparently a good idea.

Several development proposals are currently being considered by the Town which have various degrees of traffic and transportation impacts. These traffic impacts are or will be considered by the New York State Department of Transportation Region 4 to determine if curb cuts or work permits within New York State right-of-ways can be issued.

As you are aware, a mitigation plan to offset the impacts from the full build out of the Hake Property Rezone is currently being considered by the NYSDOT. The NYS DOT has indicated that a review of the Hake Mitigation Plan must be completed prior to initiation of reviews on related proposals. The above is offered to support an assumption that the current mitigation submittal will be found appropriate and technically sufficient in scope.

When the NYSDOT renders their concurrence with the subject mitigation plan, we can proceed with a detailed feasibility assessment and cost benefit analysis. As this engineering feasibility assessment and cost benefit analysis will be essential in the development of the financial mechanism for the transportation district, we suggest proceeding with both items upon NYSDOT's agreement with the subject mitigation plan. Although some features of the transportation district cannot be developed at this time, we suggest proceeding with the following tasks in preparation of the district preparation.

STAFFED BY: ENGINEERS . PLANNERS . SURVEYORS

Mr. Francis C. Repicci Page 2 February 19, 1993

Task 1: Develop preliminary district boundaries based on areas of benefit, including preliminary mapping from available resources.

Task 2: Research and development of district features.

Task 3: Field work associated with boundary establishment.

Task 4: Meetings associated with district formation.

We would like to suggest a meeting with appropriate Town representatives to discuss our agenda of initiating the work as soon as possible. We suggest that this Contract as well as any administrative or legal contracts be handled individually for future consideration in tracking as a direct cost to the district when established.

All work associated with the preparation of this initial phase of the transportation district formation will be performed at the per diem rates as shown on the attached rate schedule (designated as Exhibit A).

We propose a per diem agreement with an estimated total cost not to exceed \$10,450.00.

Payment Schedule

Monthly or periodic statements will be submitted based upon the hours utilized under the various employee NCI categories. NCI shall provide a written "apportionment of invoiced hours" with each invoice submitted. The specified rates include fringe benefits, overhead, and fees. Mileage will be billed at \$0.25 per mile. Other expenses will be billed at cost.

Amounts invoiced are due and payable upon receipt of the invoice, with interest at the rate of 1.5% per month on all invoiced amounts over 30 days past due.

Please note that this proposal will be valid for a period of sixty (60) days from date of issuance.

Should the Town decide to accept this proposal, please execute both copies and return the original to our office, to serve as our agreement for the work. The copy is for your records.

Mr. Francis C. Repicci Page 3 February 19, 1993

We thank you for the opportunity to submit this proposal and look forward to being of continued service to the Town of Batavia on this worthwhile project. If you have any questions concerning any aspect of this proposal, please contact our office.

Yours truly,

NUSSBAUMER & CLARKE, INC.

Thomas E. Butler

Manager, Environmental Services

msm

Enclosure

Hon. June C. Vukman, Supervisor

Accepted: TOWN OF BATAVIA, NEW YORK

Date: 3/19 /93

February 16, 1994 Regular Town Board Meeting Page 4 of 13 Pages.

WHEREAS, to resolve the problem a Wastewater Treatment Facility at an approximate cost of two million, four hundred, two thousand, eight hundred dollars (\$2,402,800.00) has been recommended by the Town of Batavia and Town of Pembroke's engineers, Nussbaumer & Clarke, Inc.;

WHEREAS, the construction of the facility will be un-affordable without any grants.

WHEREAS, both Towns wish to prepare an application to receive a grant from the Department of Housing and Urban Development but in order to apply for the grant the majority of households must fall within a low to medium income level.

WHEREAS, the Genesee County Planning Board has agreed to do the survey to determine the income level for the cost of stationary and stamps.

RESOLVED, the Batavia Town Board hereby authorizes the Genesee County Planning Board to conduct the survey at a cost to the Town of Batavia not to exceed two hundred dollars (\$200.00).

Second by: Councilman Schirm APPROVED by unanimous vote. (4-0)

Resolution No. 30:

Councilman Schirm offered the following:

REQUEST TO THE NEW YORK STATE LEGISLATURE TO ENACT LEGISLATION TO PROVIDE FOR A TRANSPORTATION DEVELOPMENT DISTRICT IN THE TOWN OF BATAVIA

WHEREAS, the Town of Batavia wishes to establish a Transportation Development District in the Town of Batavia in order to finance transportation improvements to facilitate new economic development within the Town.

WHEREAS, the size of the proposed district is estimated to encompass lots and parcels of land of approximately 1,295 acres or 2.02 square miles.

WHEREAS, the boundaries of the proposed district are Park Road to the East, the New York State Thruway to the North, Kelsey Road to the West and the Tonawanda Creek to the South.

February 16, 1994 Regular Town Board Meeting Page 5 of 13 Pages.

WHEREAS, before a Transportation Development District can be established in the Town, the New York State Legislature must enact enabling legislation to do so.

RESOLVED, the Batavia Town Board hereby requests Senator Mary Lou Rath, of the 60th District and Assemblyman Charles H. Nesbitt, of the 137th Assembly District to introduce and support the enabling legislation required to establish a Transportation Development District, in the New York State Legislature for its adoption.

RESOLVED, the Batavia Town Board hereby directs the Town Clerk to forward a Certified resolution of the request to Senator Mary Lou Rath and Assemblyman Charles H. Nesbitt along with the Town of Batavia's Transportation Development District report.

Second by: Councilman Scofield APPROVED by unanimous vote. (4-0)

Resolution Tabled:

Councilman Lewis offered the following:

HANDICAP RAMP LOCATION ON THE TOWN OF BATAVIA'S RIGHT-OF-WAY

WHEREAS, Duchscherer Oberst Desogn P.C. on behalf of the United States Postal Service has requested permission from the Town of Batavia to locate a handicap accessibility ramp at the United States Post Office on Read Road, East Pembroke; and

WHEREAS, it is believed that the ramp as designed, will in part be located within the Town of Batavia's Right Of Way and;

WHEREAS, approval to located the ramp in part within the Town of Batavia's right of way has been requested by Mr. Desogn.

RESOLVED, the Batavia Town Board hereby gives permission to the United States Post Office to locate in part a handicap accessibility ramp within the Town of Batavia Right Of Way.

Special Town Board Meeting April 6, 1994 Page 3 of 7 Pages

RESOLVED, the Batavia Town Board hereby authorizes the Highway Superintendent to purchase the 1981 Drott 45R excavator at a cost not to exceed nine thousand, seven hundred, fifty dollars (\$9,750.00).

RESOLVED, the funds for the payment of the excavator will be withdrawn from the Highway Equipment Reserve Fund.

Second by: Councilman Scofield APPROVED by unanimous vote. (4-0)

Resolution No. 50:

Councilman Lewis offered the following:

EXEMPTION FROM BUILDING PERMIT FEES TOWN OF BATAVIA FIRE DEPARTMENT AND EAST PEMBROKE FIRE DEPARTMENT

WHEREAS, the Town of Batavia Fire Department has submitted a Building Permit Application to the Town of Batavia for an addition and alterations to the Fire Department hall.

WHEREAS, the East Pembroke Fire Department has submitted a Building Permit Application for demolition of property on the corner of Hartshorn Road and Route 5 owned by Catherine Baron, Stegman Road, Batavia, New York, the demolition providing smoke and ventilation protection practice.

WHEREAS, a fee normally accompanies a Building Permit Application.

RESOLVED, the Batavia Town Board hereby exempts the Town of Batavia Fire Department and East Pembroke Fire Department from submitting a permit application fee.

Second by: Supervisor Vukman APPROVED by unanimous vote. (4-0)

Resolution No. 51:

Councilman Scofield offered the following:

REQUEST FOR ENACTMENT OF SENATE BILL S.7284
AND ASSEMBLY BILL A.10298
TRANSPORTATION DEVELOPMENT DISTRICT (TDD)

Special Town Board Meeting April 6, 1994 Page 4 of 7 Pages

WHEREAS, the Supervisor of the Town of Batavia hereby requests the enactment of Senate Bill S.7284 and Assembly Bill A.10298 by the New York State Legislature, the bill entitled "AN ACT authorizing the town of Batavia, Genesee county, to establish a development facilitation improvement district or benefited areas and to appropriate, collect and expend monies in furtherance thereof" (bill attached).

RESOLVED, the Batavia Town Board hereby concurs with the Supervisor that the attached legislation should be enacted and requests that Senate Bill S.7284 and Assembly Bill A.10298 be adopted by the New York State Legislature.

RESOLVED, the Town Clerk forward the eight (8) executed Home Rule request forms immediately to Senator Mary Lou Rath, Attention Randy Trahan, LOB, 817, Albany, New York, 12247.

Second by: Councilman Lewis
APPROVED by unanimous vote. (4-0)

Resolution No. 52:

Extensive discussion was held by the Town Board and Chairman Roth concerning this resolution.

AMENDMENT: Motion Councilman Schirm, second Councilman Lewis to amend the last RESOLVED to add "and the Chairman of the Planning Board".

APPROVED by unanimous vote. (4-0)

Councilman Schirm offered the following:

PARK ROAD IMPROVEMENT

WHEREAS, the Planning Board Chairman received a letter dated April 28, 1993 from R.G.S. Associate regarding transportation improvements necessary for the development of the K-Mart project.

WHEREAS, among the road improvements necessary, Park Road improvements needed to be addressed.

WHEREAS, the Planning Board gave conditional site plan approval to K-Mart without addressing the Park Road Improvement issue.

June 15, 1994 Regular Town Board Meeting Page 13 of 23 Pages.

RESOLVED, the Batavia Town Board hereby awards bid for refuse removal at the Batavia Transfer Station to Marsceill's Disposal Service, 8619 Sanders Road, Stafford, New York, 14143, at one hundred, fifty dollars (\$150.00) per pull and fifty dollars (\$50.00) per ton for household garbage and one hundred fifty dollars (\$150.00) per pull and forty-seven dollars (\$47.00) per ton for construction/demolition debris and no rental charges for either.

Second by: Councilman Schirm APPROVED by unanimous vote. (4-0)

Resolution 94

Councilman Lewis offered the following:

REQUEST FOR ENACTMENT OF AMENDED SENATE BILL S.7284
AND ASSEMBLY BILL A.10298
TRANSPORTATION DEVELOPMENT DISTRICT (TDD)

WHEREAS, at the Batavia Town Board Meeting held April 6, 1994 the Batavia Town Board upon the recommendation of the Supervisor requested the enactment of Senate Bill S.7284 and Assembly Bill A.10298 by the New York State Legislature, the bill entitled "AN ACT authorizing the Town of Batavia, Genesee County, to establish a development facilitation improvement district or benefited areas and to appropriate, collect and expend monies in furtherance thereof".

WHEREAS, the Office of Assemblyman Charles Nesbitt has advised the Town that the bill must be amended "in order for it to comply with other bills of this type and increase its chances of being passed";

WHEREAS, the amendment deletes the wording "and other general improvements to the district highway system and local streets and roads, within such district as the town board may deem necessary to fulfill the purposes of this act" (amended bill attached).

RESOLVED, the Batavia Town Board upon the recommendation of the Supervisor hereby concurs that the bill be amended to delete the wording "and other general improvements to the district highway system and local streets and roads, within such district as the town board may deem necessary to fulfill the purposes of this act" and requests that the amended legislation identified as Senate Bill S.7284-A and Assembly Bill A.10298-A be adopted by the New York State Legislature.

June 15, 1994 Regular Town Board Meeting Page 14 of 23 Pages.

RESOLVED, the Town Clerk forward the new eight (8) executed Home Rule request forms immediately to Senator Mary Lou Rath, Attention Randy Trahan, LOB, 817, Albany, New York, 12247.

Second by: Councilman Schirm APPROVED by unanimous vote. (4-0)

Resolution 95

Councilman Schirm offered the following:

RESOLUTION FOR MAINTENANCE OF WATERMAIN TO THE VETERANS MEMORIAL DRIVE SUBDIVISION

WHEREAS, the Developer of the Veterans Memorial Drive Subdivision proposes the construction of an 12" watermain crossing of Lewiston Road, Route 63, S.H. 1402, in the Town of Batavia, and

WHEREAS, the water line within the Veterans Memorial Drive Subdivision project will be dedicated to the Town of Batavia upon completion, and will be connected to existing Town water system located on easement approximately 25 feet west of the west side of Lewiston Road, and

WHEREAS, the Water Main Crossing for this system will be constructed upon State-owned lands, utilizing a 24" steel casing, bored beneath Lewiston Road,

NOW, THEREFORE,

BE IT RESOLVED, that the Town of Batavia approves the installation of the water main from the Veterans Memorial Drive Subdivision to the existing watermain and that the Town of Batavia will own and maintain or cause to be maintained the Water Main Crossing, installed at Lewiston Road Station 598 + 12, as above stated.

BE IT FURTHER RESOLVED; that the clerk of this Board is hereby directed to transmit five (5) certified copies of the foregoing resolution to the State Department of Transportation.

Second by: Councilman Scofield APPROVED by unanimous vote. (4-0)

STATE OF NEW YORK

A. 10298--A

SENATE - ASSEMBLY

March 28, 1994

and when printed to be committed to the Committee on Local Government -- committee discharged, bill amended, ordered reprinted as amended IN SENATE -- Introduced by Sen. RATH -- read twice and ordered printed, and recommitted to said committee i ASSEMBLY -- Introduced by M. of A. NESBITT -- read once and referred to the Committee on Local Governments -- committee discharged, bill amended, ordered reprinted as amended and recommitted to said commitI ACT authorizing the town of Batavia, Genesee county, to establish a development facilitation improvement district or benefited area and to appropriate, collect and expend monies in furtherance thereof

The People of the State of New York, represented in Senate and Assem-

the establishment of improvement districts or benefit areas, as the case may be, set forth in either article 12 or 12-8 of the town law, the town compassing such lots and parcels of land in the Route 63 (Lewiston Road), Route 5 (West Main Street Road), and Park Road commercial development corridors, from the Batavia city line on the east, north to the New York State Thruway and west to Kelsey Road, south to Tonawanda 1. Upon the completion of the procedural provisions governing Creek and the area surrounding such roads, which such town board deterreconstruction, improvement, widening, or resurfacing of that portion of any existing or proposed roads which said town board determines to be necessary to fulfill the purpose of this act, including but not limited to, provision for, or cause to be provided, construction of roadway segments and intersections connecting Routes 63 and 5; provided, however, that any such construction or reconstruction thereof shall be subject to in accordance with the applicable provisions of the highway law and board of the town of Batavia, Genesee county, may establish a development facilitation district or districts, or benefited area or areas, enmines to be benefited, and provide for, or cause to be provided, in conthe construction, junction with county, state, and federal agencies,

EXPLANATION -- Matter in italics (underscored) is new; matter in brackets LBD13239-03-4 [] is old law to be omitted.

CO PHETE OF INCIDES INVITED

reconstruction, widening, resurfacing or ancillary or incidental ex-penses in connection therewith, shall be raised through levy of special assessments upon all lots or parcels of land within such improvement so, to provide a credit against such assessments for monies prepaid to transportation. The costs and expenses of the foregoing, including the acquisition of land, or rights in land necessary for the construction, district or benefited area in proportion to the benefit derived improvements within such improvement district or benefited area. The provided in subdivision 1 of section 231 of the town law, and if it does therefrom. In making any such determination of benefit, the board shall take into account which lots or parcels of land within such development facilitation district or benefited area are a significant contributing factor to the traffic congestion to be remedied by the construction of to provide for the prepayment of assessments in the manner for any road improvement which the town board may determine shall be financed by assessments levied on property within the district town board is hereby authorized, in providing for the levy of t t established by Sessments, the town 116 117 118 118 129 121 125 126 127 128

or benefited area as provided herein.

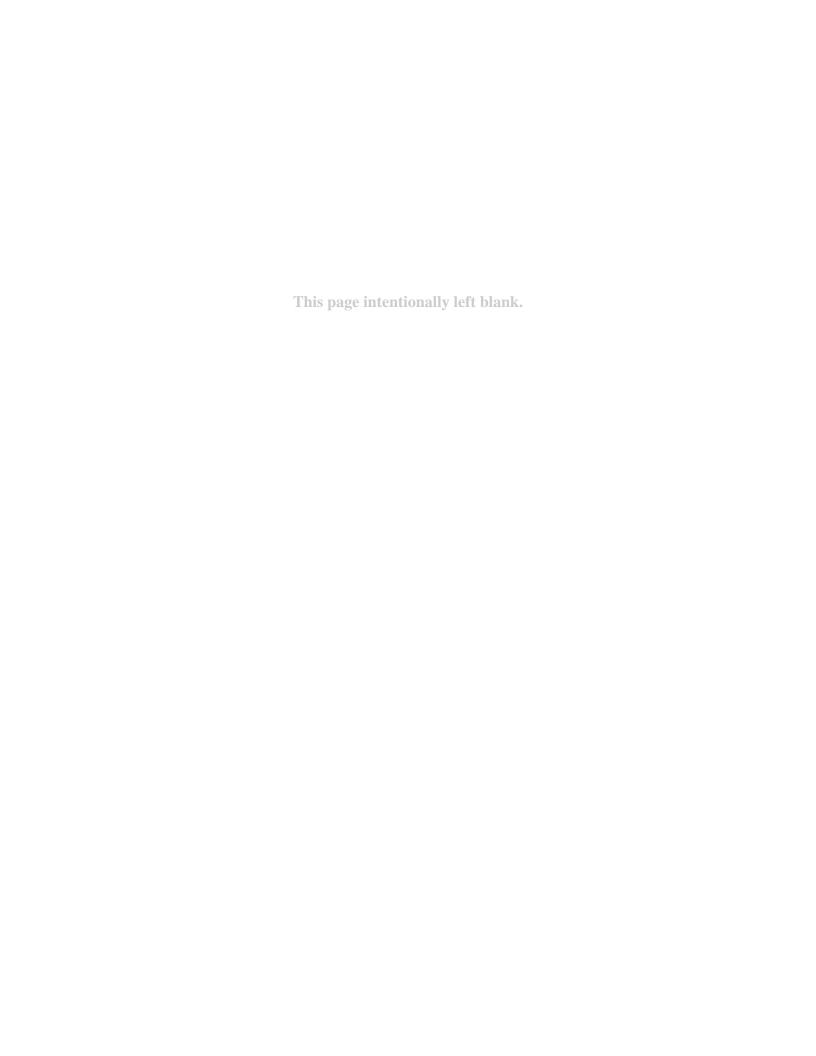
§ 2. The town of Batavia, Genesee county, is hereby authorized to appropriate, collect, and expend such sums as it shall deem necessary and appropriate to pay for the costs of surveys, plans, specifications, and sary for the project described herein and to charge any district or sions of this act for such amounts and to cause such amounts to be raised by any such district or benefited area and paid to the town as a reimbursement. Any such amounts shall be considered costs incidental to be included in the maximum estimated cost to be expended for such preliminary cost within the meaning of paragraph a of section 11.00 of the local finance law for any road improvement deacribed herein. benefited area subsequently established in accordance with the provi-sions of this act for such amounts and to cause such amounts to be the establishment of any such special district or benefited area and special district or benefited area and the same may be financed as a estimates and engineering, legal and planning professional fees shall

§ 3. Upon the establishment of a development facilitation district or benefited area, the town of Batavia, Genesee county, may provide for, to cause to be provided, any or all of the improvements set forth in secprovements set forth herein, all costs of maintaining and repairing such any federal, state, or county road, as improved, shall continue to be maintained by the appropriate federal, state, or county department or suant to the provisions of this act, in the area of the said town of shall be maintained and repaired as a town road, provided that forth in section two of this act. After the completion of the imimprovements or portions of any new highway or road constructed, purtion one of this act in accordance with the procedures and

escrow accounts, as may be established, any or all of such assessments as may be received from the specially benefited lots or parcels within the development facilitation district area and the said assessments area as provided herein, to establish and maintain escrow accounts, to benefited area as authorized in this act. The town may deposit into such tablishing a development facilitation improvement district or benefited expenses attributable to the said improvement district or 4. The town of Batavia, Genesee county, is hereby authorized, in esof financing and shall be used solely to fulfill the purposes of this act. be held in trust solely for the purpose 255255

S 5. This act shall take effect immediately.







<u>Transportation Improvement Districts &</u> <u>Development Facilitation Improvement Districts¹</u>

DEFINITION

Development Facilitation Improvement Districts (DFIDs) are special districts in which the municipal government has authority to assess and collect a fee from property owners (within the district) which is specifically allocated to finance or repay the financing for transportation-related capital improvements and/or construction of a road or roads.

LEGAL BASIS

A DFID is authorized by <u>specific</u> State legislation authorizing a specific locality to establish such a district or districts. Nine towns have been authorized to establish such districts. A copy of the legislation authorizing the Town of Ulster to establish a DFID is provided as attachment 1 (Chapter 521, 1990).

In all cases the authorizing legislation stipulates that the locality must follow the procedural provisions governing the establishment of improvement districts or benefited areas set forth in Article 12 (by petition of the people) and 12-A (by motion of the town board after public hearing and subject to a permissive referendum) of NYS Town Law. An example of the procedural steps taken by Ulster to establish its DFID #1 is provided as attachment 2.²

APPLICATION

<u>District Boundaries</u>: The State enabling legislation may define the boundaries of the DFID or it may allow the municipality to define the boundaries. As tests, the Office of Audit and Control requires that all the properties within the district are benefited by the project(s) and that all the benefited properties are included within the district.

Subject to the above tests, there are two other elements that are important. First, while DFIDs are most often self-contained, they do not need to be and may consist of more than one part. Such parts do not need to be contiguous. Second, while the transportation improvements financed through DFID-based levies are generally included within the DFID there is no specific statutory or regulatory requirement stipulating that they must be within the district.

<u>Costs</u>: DFID levies (or assessments or fees) are <u>specifically</u> intended to cover the transportation infrastructure improvements and/or construction costs and all associated costs including surveys, plans, specifications, engineering, legal and professional fees, financing and bonding costs, and the like. Municipalities are specifically authorized to establish escrow accounts "to be held in trust solely for the purpose of financing and paying the costs and expenses attributable to the said improvement district or benefited area..".



In establishing the costs to be repaid by levies on property owners within a DFID it is desirable to separate the project costs (and/or elements) that specifically benefit property owners within the district from those that don't. This can generally be done as part of the traffic/transportation study used to identify the necessary improvements in the first place.) Separate provisions to finance the latter should be made.

Assessments: The enabling legislation for existing DFIDs does not stipulate whether the assessment is to be made as a one-time or recurring assessment, or both. In existing DFIDs costs were financed by bonds and the assessment is an annual charge. (A comparison with other types of special districts authorized by Section 12 and 12A of NYS Town Law suggests that both annual and one-time, capital, charges are possible, however.) Annual assessments are to be collected at the same time and in the same manner as other property taxes and assessments but may be prepaid.

DFID costs are to be allocated "...upon all lots or parcels within such improvement district or benefited area in proportion to the benefit derived therefrom." The legislation does not define "benefits" or establish a methodology for allocating costs among property owners; consequently, a variety of approaches have been used. The most basic method, and one which underlies all of the current approaches, is to use vehicle trips as illustrated below.

More sophisticated and complicated approaches integrate consideration of broader benefits and impacts by incorporating consideration of peak and average daily trips, frontage (a proxy for property value), land-use, transportation management, and avoided costs. Such formulas are, in part, intended to capture part of the "unearned" private benefits resulting from a public investment and/or to promote certain types of behavior.

ADVANTAGES & DISADVANTAGES

A DFID provides for the allocation of transportation infrastructure costs to properties that particularly benefit from such infrastructure, or to properties whose economic uses generate the need for (impact) transportation infrastructure. DFID-based levies nominally extend to all properties within the development area. A DFID, thus, provides for greater **equity** in financing what is nominally a "public" good. Further, if bond financing is necessary, the bonds are backed by the **full-faith and credit** of the municipality, thus, presumably reducing interest rates and improving the marketability of the bonds.

Creation of DFIDs requires State enabling legislation and Comptroller approval and, thus, generally requires **more time to implement** than some alternative forms of financing. DFID



levies are property-based, thus, the economic uses or value of the properties in the district must be sufficient to support the additional property "taxes". And, as the costs of transportation improvement or infrastructure projects are often high, use of DFID-based financing <u>may be</u> restricted to relatively wealthy municipalities.

Example of Legislation Authorizing the Establishment of Ulster Development Facilitation District (#1)

ULSTER. TOWN OF - DEVELOPMENT FACILITATION IMPROVEMENT DISTRICT

CHAPTER 521

S. 7243, A. 9-1-18

Approved and effective July 18. 1990

Home rule request, pursuant to Art. IX, sec. 2(b)2, of Const.

AN ACT authorizing the town of Ulster. Ulster county to establish a development facilitation improvement district or benefited area and to appropriate. collect and expend monies in furtherance thereof

The People of the State of New York represented in Senate and Assembly, do enact as follows:

§ 1. Upon the completion of the procedural provisions governing the establishment of improvement districts or benefited areas, as the case may be, set forth in either article 12 A of the town law, the town board of the town of Ulster, Ulster county, may establish a development facilitation improvement district or districts, or benefited area or areas, encompassing such lots and parcels of land in the Route 9W-Route 32 corridors, from the Kingston city line, to the town of Saugerties line and the area surrounding such roads, which said town board determines to be benefited, and provide for, or cause to be provided, in conjunction with county, state and federal agencies, the construction, reconstruction, improvement, widening or resurfacing of that portion of any existing or proposed roads which said town board determines to be necessary to fulfill the purpose of this act, including, but not limited to, provision for, or cause to be provided, construction of roadway segments and intersections paralleling Route 9SNf and east-west connections for commercial service roads paralleling Route 9W, provide for, or cause to be provided, signalization lanes and intersection improvements to Route 32 and Route 9W from Kingston City line to Saugerties town line, and any other general improvements to the district highway system and local streets and roads within such district as the town board may deem necessary to fulfill the purposes of this act; provided, however, that any such construction or reconstruction thereof shall be south of Edgewater Drive (Bldg 962/963 Access Row) and shall be subject to and in accordance with the applicable provisions of the highway law, procedures established by the New York state department of the New York State Department of Transportation and the consent of the New York State Department of Transportation. The costs and expenses of the foregoing, including the acquisition of land, or rights in land necessary for the construction, reconstruction, widening, resurfacing or ancillary or incidental expenses in connection therewith, shall be raised through levy of special assessments upon all lots or parcels of land within such improvement district or benefited area in proportion to the benefit derived therefrom. In making any such determination of benefit, the board shall take into account which lots or parcels of land within such development facilitation district or benefited area are a significant contributing factor to the traffic congestion to be remedied by the construction of the improvements within such improvement district or benefited area. The town board is hereby specifically authorized in providing for the levy of such assessments, to provide for the prepayment of assessments in the manner provided in subdivision 1 of section 231 of the town law, and if it does so, to provide a credit against such assessments for monies prepaid to the town for any road improvement which the town board may determine shall be financed by assessments levied on property within the district or benefited area as



provided herein.

- 1. Town Law §§ 190 et seq.; 269 et sec,.
- § 2. The town of Ulster. Ulster county, is hereby authorized to appropriate, collect and expend such sums as it shall deem necessary and appropriate to pay the costs of surveys, plans, specifications and estimates and engineering, legal and planning profes-sional fees necessary for the project described herein and to charge any district or

benefited area subsequently established in accordance with the provisions of this act for such amounts and to cause such amounts to be raised by any such district or benefited area and paid to the town as a reimbursement. Any such amounts shall be considered costs incidental to the establishment of any such special district or benefited area and shall be included in the maximum estimated cost to be expended for such special district or benefited area and the same may be financed as a preliminary cost within the meaning of paragraph a of section 11.00 of the local finance law for any road improvement described herein.

- § 3. Upon the establishment of a development facilitation district or benefited area, the town of Ulster, Ulster county, may provide for, or cause to be provided, any or all of the improvements set forth in section one of this act in accordance with the procedures and provisions set forth in section two of this act. After the completion of the improvement set forth herein, all costs of maintaining and repairing such improvements or portions of any new highway or road constructed, pursuant to the provision of this act, in the area of the said town of Ulster, shall be a charge upon the area of said town outside villages and shall be levied and collected in the same manner and at the same time as any other town, charges, provided, however, that any federal, state or county road, as improved, shall continue to be maintained by the appropriate federal, state or county or agency.
- § 4. The town of Ulster, Ulster county, is hereby authorized, in establishing a development facilitation improvement district or benefited area as provided herein, to establish and maintain escrow accounts, to be held in trust solely for the purpose of financing and paying the costs and expenses attributable to the. said improvement district or benefited area as authorized in this act. The town may deposit into such escrow accounts, as may be established, any or all of such assessments as may be received from the specially benefited lots or parcels within the development facilitation district area and the said assessment shall be used solely to fulfill the purposes of this act.
 - § 5. This act shall take effect immediately

<u>Procedural Steps to Establish the Town of Ulster</u> <u>Development Facilitation Improvement District # 1</u>

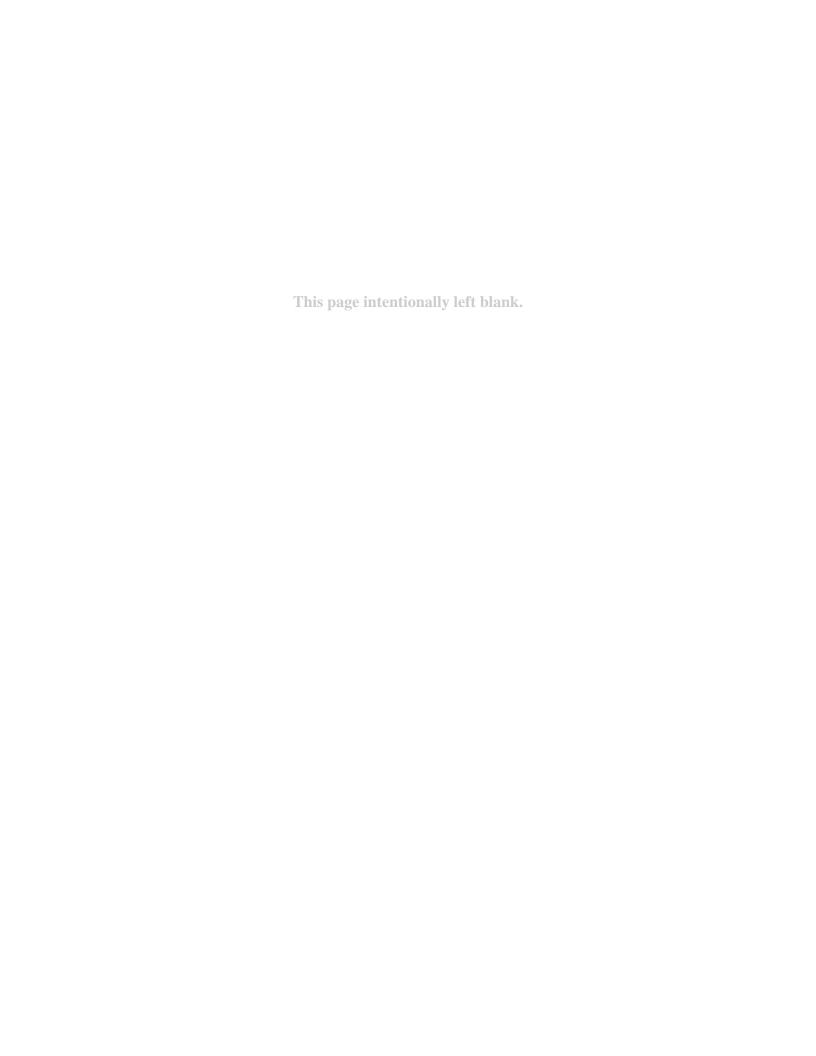
04-07-89	Completion of the Land Use/Transportation Study and Traffic Management Plan identifying the necessary transportation improvements and providing a cost estimate.
03-06-90	Submission of (State) legislation authorizing establishment of an improvement district.
00-00-90	Passage of legislation. (Ch. 521 of the Laws of 1990)
10-15-90	Adoption of a public order reciting the boundaries, costs and method of financing for the proposed District and specifying that a public hearing be held.



11-26-90	A public hearing is held and the Town resolves to establish the District.
03-18-91	Findings on the Final Environmental Impact Statement for the project are issued.
04-00-91	Ulster issues a final resolution to establish the District subject to a permissive referendum.
05-28-91	A Certificate of No Petition for a Referendum is issued.
06-06-91	Ulster requests permission of the Office of the State Comptroller to establish the District.
08-28-91	The Office of the State Comptroller grants permission to establish the District.
09-16-91	Ulster issues an order establishing the District and a resolution authorizing the issuance of \$9,440,000 of serial bonds to pay for the cost of improvements.

Development Facilitation Improvement Districts are also known as Transportation Development Di Highway Construction and Improvement Districts, Special Improvement Districts, and Special Assessment D

More comprehensive information on the procedures to be followed in establishing a DFID can be obtained in the Division of Municipal Affairs of the New York State Department of Audit and Control, e.g. "Legal Requirem istrative Procedures for Approval of Town Special Improvement Districts".





Transportation Mitigation Fee

As described in section 8 of this plan, the following pages consist of example language of transportation mitigation fees that could be utilized for transportation impacts associated with proposed development during the SEQRA process.

The excerpt is from the City of Ithaca for the Generic Environmental Impact Statement (GEIS) for the Southwest Area Land Use Plan from August 2000 in which it was found that there would be multiple transportation impacts to intersections, neighborhoods and adjacent properties.



City of Ithaca Common Council

Findings Statement (EXCERPT)

Southwest Area Land Use Plan Generic Environmental Impact Statement

Adopted - August 24, 2000

1. Purpose and Intent

This is the City of Ithaca Common Council's (The Council) Findings Statement for the adoption of the Southwest Area Land Use Plan ("the Southwest Plan"). The Council is the Lead Agency for the action, the adoption of the Southwest Plan.

. . .

2. Description of the Action

The action that is the subject of this GEIS is the adoption of a land use plan for an approximately 381-acre area referred to as the Southwest Area. The Southwest Area is bounded by Clinton Street to the north, Cayuga Inlet to the west, and Meadow Street and Elmira Road to the east and south. The study area consists of approximately 160 acres of potentially developable land and approximately 60 acres designated as substitute parkland in conjunction with the alienation of the Southwest Park parcel. The study area consists of 13 undeveloped parcels (See DGEIS page 1-1; table 1-1; figure 1.), as well as developed parcels along Elmira Road, Cecil A. Malone Drive (formerly West Clinton Street), Cherry Street, Commercial Avenue and Nates Floral Estates. It is currently zoned I-1 Industrial, MH-1 Mobile Home, B-5 Service Business, P-1 Public and Institutional, and FW-1 Floodway Zone. Current land uses are a mobile home park, vacant land, industrial uses associated with the Tompkins County Recycling and Solid Waste Center, and business/commercial uses.

The purpose of the Southwest Plan is to develop a coordinated plan for land use in this area. The Lead Agency recognized that under the existing zoning there was the potential for significant development in the Southwest Area, and that if such development was not properly coordinated, potentially significant adverse impacts could occur. Examples of such impacts are offsite traffic impacts caused by the incremental addition of traffic to surrounding roadways, and flooding and drainage impacts caused by uncoordinated development in which drainage systems do not work together. The Lead Agency further determined that it would be desirable to coordinate the aesthetic and design principles guiding development in the Southwest Area, and that the GEIS should explore ways in which public costs associated with new development could be fairly apportioned among development projects benefiting from public expenditures.

In achieving a coordinated development pattern that minimizes adverse environmental impacts to the maximum extent practicable, the City also sought to further other objectives, including:

• Increase in City (and County/School District) property tax revenues.



- Increase in City (and County) sales tax revenues.
- Development of a multi-modal transportation link between West Hill and the Route 13 commercial corridor and Buttermilk Falls State Park.
- An opportunity for the City to maintain or enhance its competitiveness within the region as a desirable location to live, work, shop and recreate.
- Job creation.
- Creation of substitute parkland.
- Adoption of Design Guidelines for existing development along Elmira Road, as well as new development in the Southwest Area.

3. How the GEIS Will Be Used

The purpose of a Generic EIS is to "discuss in general terms the constraints and consequences of any narrowing of future options and to present and analyze in general terms hypothetical scenarios that could and are likely to occur" (6 NYCRR 617.10 (a)) as a result of the action. The Southwest Plan recommendations are to be implemented by the adoption of new zoning and design guidelines applicable to the area. The actual intensity and form (i.e. layout) of new development will be dependent on private market decisions operating within the constraints of the new zoning, the design guidelines and these Findings.

The DGEIS examined six hypothetical scenarios and discussed generally the impacts of large-scale development in the Southwest Area. The purpose of this analysis was to determine the thresholds or limits of development that could, consistent with other objectives, occur without significant, unmitigatable adverse impacts.

Following the adoption of these Findings and the adoption of zoning and design guidelines implementing the Southwest Plan, individual applicants who wish to develop portions of the Southwest Area covered by the Southwest Plan must come before the Planning and Development Board (and other agencies) for site plan approval and must complete SEQRA processes of their own. Therefore, each individual project will be reviewed for the specific potential environmental impacts that may arise due to project specific actions and disturbances. The GEIS would be used as a starting point, or baseline document, in this review.

Should the Planning and Development Board (or other involved agency) find that there are site-specific issues that have not been addressed in the GEIS, or if the project is not in some way in substantial compliance with these Findings, then supplemental study may be required. Such study may take the form of attachments to an Environmental Assessment Form, a more in depth Environmental Site Assessment (ESA), or a project specific supplemental EIS. The costs of any such study would be borne by an individual project applicant. If a project is in substantial compliance with the Findings of the GEIS and no site specific issues are raised, then the project can be issued a Negative Declaration and proceed to site plan review.



. . .

6. Findings, Basis and Rationale for Decision

The following discussion sets forth the Findings, basis and rationale for the Lead Agency's decision, including required mitigation measures.

Land Use and Density

- (i). The study area generally consists of vacant or underutilized land. Although a variety of land uses are allowed by existing zoning, lack of infrastructure and access considerations inhibit future development. The Lead Agency Finds that the adoption of the Southwest Plan will have positive impacts by: 1) Encouraging coordinated development and by limiting the amount of development that can occur to a specified maximum; 2) Tying the costs of mitigation to certain intensities of development; and 3) Providing a mechanism for developers to pay their fair share of public improvement costs.
- (ii). The GEIS analyzed six hypothetical development scenarios in order to determine the level of development at which significant, unmitigatable adverse impacts would occur. The range of densities analyzed was from a low of 500,000 square feet of retail development to a high of 1,250,000 square feet of mixed retail and office development. The GEIS determined that a maximum development of approximately 1,000,000 square feet, (of which approximately 800,000 square feet was retail development and 200,000 square feet was office development) was the maximum amount of development that could be sustained without significant, unmitigatable traffic impacts. The Lead Agency therefore Finds that the ultimate density within the study area shall not exceed that which would result in 2,152 vehicle trips during the peak weekday hour, which has been calculated to be between 4:30 and 5:30 p.m. Trips shall be as calculated by the Institute of Transportation Engineers standard reference *Trip Generation*, taking into account appropriate credits for pass-by traffic, internal capture and non-automobile travel. Local data may be used to supplement *Trip Generation* where appropriate.
- (iii). The GEIS considered general land use alternatives of retail, office, and light industrial and found that such uses could be reasonably accommodated on the project site without significant, unmitigatable adverse impacts. The Lead Agency Finds that it is desirable to limit certain uses in order to achieve consistency with the design guidelines, discussed in section 5.b. below. Consequently, the Lead Agency Finds that it is desirable to adopt new zoning districts to implement the intent of the Southwest Plan and these Findings. The new districts will consist of the main mixed use district and a subdistrict for the developed areas along South Meadow and Elmira Road. Both districts will allow for a mix of land uses such as residential uses of all density, recreation, retail, office, entertainment, light industrial and manufacturing. Gasoline filling stations will be prohibited from the main mixed use district. Automobile repair/maintenance services as a primary use in the main mixed use district is also prohibited; it may however be an accessory use. Mobile homes, adult entertainment and heavy industry will be prohibited in both districts.
- (iv). The Lead Agency Finds that the No-Action Alternative would result in the failure



to adopt the Southwest Area Land Use Plan. Failure to adopt the Southwest Plan could result in greater negative impacts due to uncoordinated review of future projects, failure to consider cumulative impacts, no fair share cost distribution, failure to construct a coordinated drainage system, uncoordinated infrastructure improvements, adverse off-site traffic impacts and failure to adopt a policy for concurrency of traffic improvements. See page 4-1 of the DGEIS for discussion on the No-Action Alternative.

• • • •

Transportation

- (i). The DGEIS contained the results of a detailed traffic analysis. Additional analyses were provided in the FGEIS incorporating additional intersections and several changes to the proposed access scheme were considered. The entire analysis considered impacts to 36 intersections; impacts on residential neighborhoods within the City; and impacts to adjacent properties.
- (ii). The GEIS traffic analyses concluded that the intersections analyzed would operate at acceptable Levels of Service (LOS) with the construction of certain improvements (see DGEIS pages 2-39 and 2-40 and FGEIS page 264).
- (iii). The Lead Agency Finds that transportation improvements internal to the site shall be constructed by private developers at their expense. All roads shall be constructed to appropriate City standards and may be at the City's discretion turned over to the City for ownership and maintenance. The Lead Agency further finds that offsite traffic improvements that result in improvements to existing conditions and that mitigate the impact of development shall be paid for on a "Fair Share" basis. The Lead Agency Finds that the "Fair Share" cost of off-site traffic improvements shall be apportioned. Such apportionment is further discussed in Finding t (ii) below.
- (iv). The Lead Agency Finds that concurrency between development and mitigation shall be maintained to the extent practicable. A policy of concurrency will be established whereby planning and funding for infrastructure and transportation improvements keep pace with anticipated levels of development. Conversely, the pace of project approvals and actions to implement land use recommendations will be limited to reflect reasonable expectations for infrastructure and highway improvements.
- (v). The GEIS investigated the impacts of traffic on residential neighborhoods, including livability and quality of life issues. The Lead Agency Finds that additional through or connector streets, improvements to the existing streets and traffic calming measures will mitigate potential impacts of the action on neighborhoods where there may already be existing issues with respect to the amount of traffic using residential streets as through or connector streets. The Lead Agency has passed a resolution stating that traffic calming is a policy of the City of Ithaca, and the City is now engaged in a traffic calming study which will result in recommendations for installation of traffic calming devices in some city neighborhoods. The City has already begun to implement traffic calming measures on several neighborhood streets, and intends to continue to aggressively seek funding for such improvements.



- (vi). The Lead Agency recognizes that because the Southwest Area is flat and close to the population centers in the City, it presents an ideal opportunity to promote bicycle, pedestrian and transit use. The combination of on-site facilities as outlined in the Design Guidelines, and off-site improvements including bicycle-friendly traffic calming, implementation of the Ithaca Bicycle Plan, and improved transit service will allow safe and convenient access to the area. Given these improvements and the potential for increased automobile travel times, bicycling, walking and transit will become more attractive alternatives. The Lead Agency additionally Finds that it intends to revisit the routing of the proposed bicycle trail along Elmira Road as provided for in the Ithaca Bicycle Plan. The proposed trail may be able to be re-routed off of Elmira Road onto internal roads anticipated to be constructed in the Study Area.
- (vii). The Lead Agency Finds that promoting development in the undeveloped Southwest Area of the City will allow shorter travel distances for those in the densely populated areas of the City. The location of the Southwest Area, as well as not designing intersections and roadways for excessively high automobile levels of service, will minimize the effects of sprawl in the Ithaca area. The Lead Agency further Finds that it is acceptable to allow Levels of Service of E at certain intersections in order to avoid roadway improvements that ease travel and lead directly to sprawl.
- (viii). While numerous comments were received questioning the accuracy or conclusions of the traffic study, no commentor submitted calculations or analyses that would contradict the Findings of the GEIS traffic analyses. The FGEIS contained further data to substantiate the accuracy and conclusions contained in the traffic study.
- (ix). Based on the Lead Agency's analysis of existing and future traffic in the Study Area and in response to concern expressed during the public comment period about potential traffic impact, the Lead Agency Finds that it will additionally develop and implement a Traffic Monitoring and Management Plan (M & M Plan) for the Southside/South-of-the-Creek Area concurrently with development in the Southwest Area. The goals of the Plan are to protect the Southside and South-of-the-Creek neighborhoods from the negative impacts of increased traffic, to improve the accessibility of the project area for people who live east and south of downtown Ithaca, and to provide a direct route which strongly links the Southwest Area to the downtown and to the West End/Inlet Island corridor. The M & M Plan will be developed and implemented to be consistent with the City's Comprehensive Plan.
- (x). The Lead Agency, as part of the M&M Plan will study and implement a set of mitigations that will help to minimize the impacts of traffic in the City, especially in the South Side and South of the Creek neighborhoods. These mitigations will address both existing traffic and that generated by new development. The mitigations consist of converting Spencer Street to two-way traffic, constructing a new road behind Ithaca Plaza entering the new southwest development area, rebuilding the Plain Street pedestrian bridge over Six Mile Creek as a traffic bridge, widening Route 13 to five lanes, constructing the new Taughannock Road extension, and developing and implementing a



City-wide traffic plan which promotes an open traffic grid in all areas of the City, including the possible removal of the diverters on Wood and South Streets.

Mitigation Fees

(i). As discussed in the FGEIS, the Lead Agency will collect mitigation fees in four areas: 1) Transportation improvements; 2) Water improvements; 3) Sewer improvements; and 4) GEIS costs. These fees are intended to recoup the fair share of the City's costs from developers for improvements constructed by the City and benefiting developers. The formulas for and amounts to be collected for water, sewer and GEIS preparation are presented in the FGEIS at pages x-xii and are summarized as follows.

Water Fee	\$9.89/gallon/day
Sewer Fee	\$14.68/gallon/day
GEIS Preparation Fee	\$0.40/SF

(ii). FGEIS Appendix 5.2, Table 1 contained a formula for apportionment of transportation mitigation fees. The Lead Agency has further considered the formula presented in this Table and determined that certain improvements can and should be funded by sources such as grants and consequently should not be funded by mitigation fees in the same proportion presented in the Table. The Lead Agency will therefore apportion the collection of traffic mitigation fees according to the table attached to and made a part of these Findings

Based on this table, the Lead Agency will collect a traffic mitigation fee of \$1,460 per adjusted trip. The Planning and Development Board may adjust trip generation for passby reduction, internal capture, non-automobile travel, transportation demand management, or other factors as determined applicable and appropriate.

(iii) In calculating transportation mitigation fees, developers may receive appropriate credit for off-site and on-site improvements which are required as a result of site plan review, to be constructed by the developer, as required by their approved site plan. Site improvements to be considered are only those that become part of city owned transportation infrastructure. The credit for costs incurred by the developer will not necessarily be based on cash disbursement. The credit may be awarded by the Planning and Development Board at its sole discretion, and upon advice of a qualified professional traffic consultant and/or licensed professional engineer, as the reasonable cost for such improvements. When calculating the total mitigation fee, based on the final approved site plan, the Planning and Development Board shall consider the total adjusted trips plus the shared costs for water, sewer and the Draft GEIS (as shown on the above table).



- (vi). The Lead Agency Finds that it will seek other funding sources for the public portion of improvements in the Table presented in Finding t (ii) above. Such sources may include State and Federal grants. The Lead Agency further Finds that it is its intent to investigate alternative sources of funding such as a Transportation Improvement District (TID) or Benefit Assessment District (BAD) for the Southwest Area.
- (v) Not all fees will apply to all parcels. The following table allocates which fees shall apply to specific parcels in the study area. The location of parcels is referenced to DEIS Figure 1, which is attached to and made a part of these Findings.

Parcel name and Letter Designation	Transportation Fee	Water Fee	Sewer Fee	GEIS Preparation Fee
A Southwest Park	Yes	Yes	Yes	Yes
B Other City Land	Yes	Yes	Yes	Yes
C Cherry Street Extension	No	No	No	No
D4 Railroad Adja- cent Undeveloped Land	Yes	Yes	Yes	Yes
E1 Former Dump	Yes	Yes	Yes	Yes
E2 Former Dump	Yes	Yes	Yes	Yes
E3 Former Dump	Yes	Yes	Yes	Yes
F1 Levee parcel	Yes	No	No	Yes
F2 Levee parcel	Yes	No	No	Yes
F3 Levee parcel	Yes	No	No	Yes
F4 Levee parcel	Yes	No	No	Yes
F5 Levee parcel	Yes	No	No	Yes
F6 Levee parcel	Yes	No	No	Yes
All Other GEIS Study Area Parcels	Yes	No	No	Yes

(v). The Lead Agency recognizes that it cannot exact a mitigation fee without using the money for the purpose for which it was intended. Therefore, if the money collected is not expended within 10-years from the time of exaction, it will be returned to the payee with interest at the City's cost of borrowing.



General Development Fees

As described in section 8 of this plan, the example development fee schedule that follows from the Town of Wilton highlights specific fees that the Town of Batavia could charge applicants to mitigate transportation impacts.

In the Town of Wilton, these impacts are categorized according to the primary reviewer of the application (Town or an outside consultant) and whether the application is residential or non-residential.



WILTON FEE SCHEDULE

Subdivision Fees When Town is Primary Reviewer

Initial Application Fee: \$20.00/living unit

or \$300.00 minimum

Review Fee:* 1-5 living units \$130/unit

6-50 living units \$120/unit 51+ living units \$100/unit

or \$6,000 minimum

Final Application Fee: \$150.00/living unit

Park and Recreation Fee:

\$750.00/living unit

(including senior living units)

Traffic Mitigation Fee:** \$524.00/living unit (including senior housing)

(minus \$524.00 for one existing unit, if applicable)

\$330.00/living unit for multi-family units

Road Inspection Fee: \$3.00/linear foot

Sidewalk Installation Fee

If applicable: \$30/linear foot

Stormwater Management Fee \$2,000/stormwater management area when

if applicable: approved to be maintained by the town

Note: All above fees include senior living community projects.

Subdivision Fees When Reviewed by Outside Consultant

All fees are the same except review fees, which are as follows:

In-House Consultant 1-5 living units \$40/living unit

> 6-50 living units \$35/living unit 51+ living units \$30/living unit

> > or minimum of \$1750

\$140/living unit **Outside Consultant** 1-5 living units

> \$130/living unit 6-50 living units 51+ living units \$110/living unit

or minimum of \$6500

^{1/2} of the review fee is due at the time of conceptual submission; 1/2 is due with preliminary submission.

^{**} Projects of 10 living units or less: full traffic mitigation fees due at final approval. Project of 10



living units or more: 1/2 fee due at final; 1/2 due prior to issuance of the first building permit.

Non-Residential Fees When Town Is Primary Reviewer

Initial Application Fee:***	0-4,999 sf	\$250
	5,000-9,999 sf	\$500
	10000-29,999 sf	\$.06/sf

30,000-99999 sf \$.04/sf or \$1800 minimum 100,000+ sf \$.03/sf or \$4000 minimum

Minor Review Fee: \$100

Engineering Review Fee: 0-4,999 sf \$1000

5000-29,999 sf \$25/sf or \$1 400/minimum 30,000+ sf \$10/sf or \$7500/minimum

Traffic Mitigation Fee:	Industrial/Commercial	\$.50/gsf
_	Office	\$.78/gsf
	Service Establishment	\$.86/gsf
	Retail	\$1.30/gsf
	Self-Storage Facility	\$.14/gsf

Construction Inspection Fee:* \$.15/gsf

With minimum fee of \$150

Non-Residential Fees When Reviewed by Outside Consultant

All fees are the same except review fees, which are as follows:

In-House Review: 0-4,999 at \$400 5,000-29,999 sf \$.08/sf

30,000+ sf \$04/sf with minimum fee of \$2400

Outside Consultant: 0-4,000 sf \$1100

5,000-29,999 sf \$.30/gsf

30,000+ sf \$12/sf with minimum fee of \$9000

Soil and Woodland Conservation Fees

Application Fee: 5-50 acres \$ 50

51-100 acres \$100 Over 100 acres \$150

Review Fee: \$100 (Subject to Approval by Keith

Manz)

^{***1/2} due at conceptual submission; ½ due with preliminary submission

^{****}Fee can be adjusted for very small projects requiring minimal inspection.



Zoning Board of Appeals Fees

Application Fees: Area Variance - Residential Area Variance - Commercial:	\$35
Eat. < \$200000 value	\$200
Eat, > \$200,000 value	\$400
Use Variance - Residential	\$100
Use Variance - Commercial	
Est. <\$200,000 value	\$500
Est. > \$200,000 value	\$1000
Signs	\$100
Special Permit - Residential Special Permit - Commercial	\$35
Eat. <\$200,000 value	\$200
Eat, > \$200,000 value	\$400
Interpretations	\$50

Zoning Change Requests

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Eat. < \$200,000 value	\$200
Eat. > \$200,000 value	\$400

Conditional Use Permits \$40

Sign Permits \$2/sf min. fee \$100

Residential Building Permits \$10/sf min. fee \$40

Non-Residential Building Permits

New Construction	\$20/at min. fee \$100
Renovation	\$10/sf min. fee \$100

Fees current as of March 1, 2006. Fees are subject to change.