Town of Lysander Comprehensive Land Use Plan

Draft

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Town of Lysander Comprehensive Land Use Plan

Land Use Plan Committee

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Introduction

The purpose of this Comprehensive Land Use Plan (CLUP) is to provide the Town of Lysander with a sound plan for land use for at least the next 5 years. It is understood that such plans should look farther into the future and this plan does so where possible. However; one major constraint is Wastewater Treatment capabilities will be a limiting factor for at least the next 3 years. The previous plan was completed in 1991 the only revision was made in 2007 adding a very complex program to protect farm land. This addition known as "Transfer of Development Rights" (TDR) affected the AR-40 Districts in the Town where certain areas called "sending areas" were selected to be protected from development while other areas called "receiving areas" were selected to allow development. The goal was to redirect development in such a way as to retain prime farm land while at the same time allowing development in other regions of the Town, all of which continue to be in the AR-40 Districts. A developer wishing to build in a "receiving area" would be required to pay an owner of property in a "sending area" for the right to build in the "receiving area". Since the TDR was put in place no such transactions have taken place.

This 2015 CLUP has been assembled to best meet the town's desire to encourage sustainable residential, industrial and commercial development in a manner consistent with the retention of all the Town's outstanding characteristics. For example; the CLUP replaces the TDR program with a much less complex system involving zoning provisions which incentivizes developers to provide conservation easements and farmers to seek enrollment in NYS Agricultural Districts to protect their farming operations in all the areas of Town where the Incentive Zoning Overlay applies.

In developing the plan this "All Volunteer Committee" whose names are listed on the title page made it a key point to fully assess the desires of the Town's current residents and businesses through bi-weekly meetings, local press coverage and the use of surveys. This level of outreach to the community was extremely successful in identifying, or perhaps confirming, the Town's most desirable characteristics as well as what most of the respondents felt needs to be improved. This Comprehensive Land Use Plan (CLUP) sets forth what is needed to address both:

1. Take advantage of the Town's most desirable features while, at the same time, preserving them
2. Put in place incentives making it possible to develop Land Use in ways to advance the needed improvements

A summary of survey results are presented on the following page.

The CLUP must be reviewed for periodic updating to stay abreast of changing conditions such as opportunities to improve Traffic Flow, Wastewater Treatment Capabilities and changes in regulations. At the minimum, this review and update should occur every 3 years.

The Syracuse Onondaga County Planning Agency (SOCPA) has been instrumental in the development of this Plan. The Town should continue the close relationship that has been developed. SOCPA is an excellent resource for access to County, State and federal regulations the Town can tap to keep abreast of such things. In addition the Town and developers should coordinate early with the SOCPA, and utilize the county's coordinated review process to engage stakeholders and agencies early in sharing information on complex development projects being considered.

The plan is organized topically to cover the major land use issues consistent with desires expressed by the Town's residents and businesses. For each topic, background data has been used to identify major issues; from these issues, policies are developed to direct future land use decisions; finally, implementing procedures are presented to produce the desired policies. The Land Use Maps included in Appendix C serves as a Town-wide representation of major land use.

Public Input
Ranked in order of most to least important actions over the next 5 years

Retain Agricultural Land	1
Retain Open Space	2
Improved Traffic Flow	3
More access to Waterways	4
More Industry	5
More Parks & Recreation	6
More Retail	7
More Dining	8
Homes on 1 acre lots	9
More Bus Service	10
Park & Ride	11
More single Family Homes	12
Homes On smaller lots	13
Lite Rail	14
More Planned Unit Development such as Radisson & Timber Banks	15
More Multi Family Homes	16

Public Input
Features of the Town which sets it apart from all others

Seneca & Oswego Rivers	1
Education	2
Canal	3
Open Space	4
Agricultural Resources	5
Parks & Recreation	6
Cross Lake	7
Residential Areas	8
Dining Facilities	9
Tourism	10
Industry	11
Public Infrastructure	12
Transportation	13

Summary of Recommendations

Implementation of this Comprehensive Land Use Plan (CLUP) is dependent on the Town revising its Zoning Code and its Subdivision Regulations to be consistent with this Plan and especially to incorporate the Incentive Zoning provisions discussed in the Plan. To facilitate such revision Appendix A includes a Draft Incentive Zoning Article XXVII to replace the two Articles dealing with Transfer of Development Rights (TDR)

Chapter 117 "Subdivision of Land"

Add a provision: for a representative of the Planning Board to conduct a "Site Walk-through" with the developer's design professional followed by a design discussion session for the purpose of firmly establishing the basis for going forward. The objective is to assure that the development is consistent with the character of the community and takes advantage of the natural environment surrounding and within the proposed subdivision.

Also add a provision: for the Developer to work with the Planning Board's representative to perform a fiscal analysis for the scope of the entire development not just for capital expense but to include life cycle analysis as well. This analysis must ensure that the Town is making sound investments that it and its residents can sustain long term.
The life cycle cost analysis should be used by the Town as the basis to build a reserve for the ongoing maintenance and ultimate replacement cost of the infrastructure.

Add a provision: The Planning Board must guard against approving minor subdivisions where it is likely to be a part numerous minor subdivisions or might limit future major subdivisions

CLUP Review and Coordination

The CLUP must be reviewed for periodic updating to stay abreast of changing conditions such as opportunities to improve Traffic Flow, Wastewater Treatment Capabilities and changes in regulations. At the minimum, this review and update should occur every 3 years.

The Town and developers should coordinate early with Syracuse Onondaga County Planning Agency (SOCPA), and utilize its coordinated review process to engage stakeholders and agencies early in sharing information on complex development projects being considered.

Transportation

Peak hour traffic congestion at several intersections will continue to be a concern. The congestion can be relieved through signalizing and providing turn lanes at key intersections and careful design of new subdivision roadways. As new development occurs it is important that the Planning Board must take care to assure the following:

- Avoid creating new roads where the anticipated development will not be expected to generate enough taxes to maintain those new roads.

- The rights-of-way of existing collectors and arterials should be expanded where feasible to sufficient width to permit any future road improvements such as turn lanes and signalization of critical intersections.

- Minimize the number of curb cuts along arterials and collectors, design techniques must be utilized such as reverse fronting of subdivisions and creation of local internal streets.

- Town's Pavement Management Plan must be fully implemented and include an ongoing process of capital planning and to cope with any increased mileage of local streets

- Where only a small number of lots are being considered the Planning Board must require a sketch plan for the entire larger parcel with future access points identified, drainage problems noted, and other salient features identified; this sketch plan can then be used as a basis of judging the merits of minor subdivisions as well as setting precedents for any future subdivision of the original and adjacent parcels.

- Subdivision streets in major subdivisions must provide interconnections with adjacent developed and undeveloped lands without burdening residents along these streets with traffic loads inappropriate to the character of the area. These interconnections provide additional routes for safety vehicles to enter subdivisions.

- Walk and Bikeways along such roads must also be considered

- As the Planning Board reviews future development including the Town's current highway system and the possible areas of future development, its highly likely that new collector highways may be necessary to serve undeveloped areas of the Town or to connect existing parts of the arterial/collector system.

- The NYSDOT has investigated the 370/John Glenn Blvd. intersection and recommended the installation of an exclusive eastbound right-turn lane on Route 370 and a second northbound left-turn lane on John Glenn Boulevard (with receiving lane on Route 370

westbound. The Town should continue to lobby for this project as it affects many residents.

- While there is no likelihood of completion of the Baldwinsville By-pass in the foreseeable future, the Town should ensure that no steps are taken that would preclude the completion to Route 48 in Van Buren and work with the Village of Baldwinsville and the Town of Van Buren to periodically remind Albany of the critical need.

River System

More than two thirds of the Town's border consists of waterways. It is therefore very important that the Town do the following:

- Protect the waterways from faulty septic systems. It is of critical importance, not only to the Town but the entire reach of these waterways.

- In light of the 2010 NYSDEC "Polluted" designation for the Seneca River and a substantial portion of Cross Lake the Town should seek assistance from the County Health Department and NYS DEC to create more stringent sewage disposal requirements; not just for the Town but for the entire waterway.

- Any new development along the Town's waterway (within 500 feet of flood plain) will not be allowed to include septic systems, and must connect to a Publically Owned Wastewater Treatment Facility such as the Baldwinsville Seneca Knolls Plant

- Any re-development however small along the Town's waterway (within 500 feet of flood plain) must find suitable means for sewage treatment to be approved by the County Health Department.

Parks and Recreation

The following policies will be used to guide land use decisions regarding recreation activities in the Town:

•The Town's central park should be the focus of major recreation programs on a Town-wide basis and there is room on the site to offer additional programs and facilities.

•Revenues from subdivision fees will be used in parallel with Incentive Zoning Program to acquire and equip an additional park.

•The borders of existing parks should be protected by buffer strips from any new development.

- Walkways should be considered for major new developments to interconnect between developments and to other attractions such as public river access, the YMCA and future park land

- The Town should encourage greater public access to the river system.

Agriculture

Through the years, community planning efforts and discussions among local residents reveals that the preservation of economically viable agriculture in the community is a key issue facing the local population. The findings of the CLUP committee's public survey strongly support this. Therefore, the importance of linking Town goals and objectives to the preservation of agricultural resources is a key aspect of the quality of life the Town wishes to maintain. The CLUP requires the following:

- Conduct a study whose goal would be the production of a "Town of Lysander Agriculture and Farmland Protection Plan". Goals within the scope of the Plan could be:
  - Identify policies for the conservation and protection of current productive farmland and its support acreage,
  - Determine criteria and prioritize the agricultural land within the Town which should be preserved,
  - Strengthen the reputation of Lysander's agricultural reputation and work for the support of the non-farm residents of the Town by increasing the awareness of the significance of local agriculture in daily life,
  - Encourage the Town and its residents to support future economic development which could be the result of increased agricultural production, value added production agritourism, etc.,
  - Ensure local regulations are supportive and protective of agricultural activities.
- Significant acreage on both sides of Route 370 on the Cold Springs Peninsula need not depend on the results of such study since they have, for many years, proven to be very productive and are perhaps the most visible farm land in the entire community, even to the point of demonstrating the benefits of agribusiness including agritourism attracting visitors to the orchards, vegetable and berry fields. In keeping with the community's strong desire to retain such farm land it is recommended that major portions of these farm lands immediately adjacent to 370 be preserved through the application of Conservation Easements, the continuation of the NYS Agricultural District which already exists to the Northeast of 370 and the enrollment of a new NYS Agricultural District to the Southwest of 370.
- Residential development to the Northeast and Southwest of these lands shall be allowed at an increased density through the application of the incentive zoning process which would exchange increased density allowance for the developer's agreement to provide sewer extensions and appropriate Buffers between the farm land and the residences

Physical Environment

To address environmental issues and achieve its policies, the Town has three basic methods: State Environmental Quality Review (SEQR), coordination, and Town regulatory actions. Though presented separately for this discussion, they should be viewed as integral components of the Town's overall effort to promote the proper use and protection of environmental features.

The NYSDEC web site gives guidance through a "Map of the SEQR Process" which can be found at:

http://www.dec.ny.gov/permits/32521.html

Coordination

For implementing the environmental component of the Town plan, coordination will most often be carried out by regular communication among Town agencies and by the Town with outside regulatory agencies. Maintaining and enhancing this form of coordination is especially important during the course of a project SEQR review.

Town Regulatory Actions

The tools available to the Town to foster the proper use and protection of the physical environment are its zoning and subdivision powers and its ability to provide public facilities. Acting separately or in conjunction with each other, these tools create the town's system for protecting the physical environment. This CLUP exercises these powers in the following manner:

- The implementation of the Incentive Zoning Overlay to promote the provision of needed public infrastructure described in detail throughout the CLUP including:
  - Town, County and Developers' decisions concerning new trunk sewers and/or pumping stations will have a major impact on the location and extent of residential growth in the Town.
  - In light of the Seneca River water quality degradation it is possible that the Health Department or NY DEC may soon restrict the use of septic systems for all new development within to County Consolidated Sewer District. Even before this becomes the case the CLUP uses "Incentive Zoning" to exchange development rights for needed trunk/siphon to Wetzel Road or to Baldwinsville-Seneca Knolls even to the point of working with WEP to expand treatment capacity

- One way to expand capacity is to reduce inflow beginning with an "Infiltration Inflow Analysis and corrective measures" of aging facilities.
- Insist on periodic inspection and proper maintenance of grease traps and other industrial/commercial process equipment to reduce biological load
- Search out and remove illegal sump pump, basement drains and stormwater connections
- Reduce stormwater run-off and infiltration.

The Town shall encourage and require, when practical, the design of public facilities to provide for future interconnections between adjoining projects in order to promote a logical expansion of facilities within the Consolidated Sanitary District.

The provision for both public sewer and water service should be incorporated in every significant development project proposed within the Consolidated Sanitary District.

The Town must not allow the development of community water/sewer systems since the Town does not have the capability to operate and maintain these types of systems.

Where shown in specific AR-40 districts, "Incentive Zoning" provisions will be applied to create amenities such as park land and to preserve open space and farm land as well as wastewater conveyance subject to fiscal impact analysis and coordination and concurrence with regional infrastructure providers.

The Town should work closely with WEP, the Village of Baldwinsville and the Town of Van Buren to reduce Infiltration Inflow to the sanitary sewer system and to seek out and force the removal of illegal connections. Such activities are frequently funded by various environmental agencies. The Town should seek such funding.

Stormwater Management

As an MS-4 community the CLUP requires that the current NY State Department of Environmental Conservation (NYSDEC) Stormwater Design Manual be complied with for all stormwater management issues beginning with sketch plan to ultimate maintenance of facilities. This includes maintenance of existing facilities.

Subdivision Review

As a part of the Incentive Zoning process the Town Planning Board must take an active role in working with the developer to best assure that fiscal analysis is proper for the scope of

the entire development not just for capital expense but must include life cycle analysis as well. This analysis must ensure that the Town is making sound investments that it and its residents can sustain long term. That the development is consistent with the character of the community and takes advantage of the natural environment surrounding and within the subdivision. It is expected that for major subdivisions (5 or more lots) a representative of the Planning Board will participate in a site walk-through with the developer's design professional followed by a design discussion session for the purpose of firmly establishing the basis for going forward with the implementation of the exchange of the appropriate amenities for the requested development rights.

The life cycle cost analysis should be used by the Town as the basis to build a reserve for the ongoing maintenance and ultimate replacement cost of the public infrastructure.

Public Facilities

Where shown in specific AR-40 districts, "Incentive Zoning" provisions will be applied to create amenities such as park land and to preserve open space and farm land as well as wastewater conveyance and other amenities subject to fiscal impact analysis and coordination and concurrence with regional infrastructure providers.

The provision for both public sewer and water service should be incorporated in every significant development project proposed within the Consolidated Sanitary District.

The Town must not allow the development of community water/sewer systems since the Town does not have the capability to operate and maintain these types of systems

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Availability of only public water relieves some concerns for public health, but not for other aspects of environmental quality. Therefore, developments with public water and individual lot on-site septic systems shall only be allowed on lots with a minimum size of one acre, two acres in Agricultural District.

Commercial and Industrial Land Use

The need for significant retail and service development in Lysander is limited by the Town's proximity to the Village of Baldwinsville, to the Town of Clay, and to areas south of the Town in Salina and Liverpool where substantial retail and service facilities already exist. Therefore, new retail and service uses are expected to be on a lesser scale designed to serve the immediate needs of adjacent residents.

The Town is experiencing very positive Industrial growth. This growth is not accidental it is occurring for many reasons:

- The presence of a sound labor force
- Attractive residential properties (great places to raise a family)
- Exceptional education facilities/staff
- Access to transportation and dependable utilities
- The Town has also demonstrated a willingness to joint venture with industry to develop suitable waste treatment / pretreatment facilities to entice development in the view of the current Public WWTF limitations. Such a facility may also produce energy

The Town should continue its strong relationships, with the Onondaga County Planning Agency, the County's Office of Economic Development and the Onondaga County Industrial Development Agency (OCIDA).

Commercial uses along Route 48 north of Hencle Blvd must encourage site designs which limit the number of access points, combines access points where feasible, and assures that access points are properly located. Multiple strip commercial uses with vaguely defined curb cuts must be avoided. Any further speculative re-zoning to commercial districts is also to be avoided

For large scale residential developments, particularly the type that may eventually occur in the eastern peninsula area of the Town, some form of "Incentive Zoning" similar to that described in the Residential Land Use Section or a PUD procedure should be utilized so that commercial sites as well as parks are predetermined and scheduled to be built as residential development warrants. Such a procedure assures that all elements necessary for a well-rounded community will be planned in advance and assures that commercial uses not be permitted to develop in a manner incompatible with residential or other noncommercial land uses. In addition it must consider and allocate appropriate Open Land to preserve view sheds and Agricultural land

Residential Land Use

Residential development in the town has suffered as a result the need to require large lot sizes to accommodate septic systems where sewers do not currently exist. Another serious consideration is that these larger lot sizes consume more land that the town's residents would like to see preserved; namely farm land and open space to retain the vistas afforded by the rural character of the community.
In 2007 the Town implemented a Transfer of Development Rights (TDR) zoning provision, the purpose of which was to preserve farm land. However the TDR did nothing to address the large lot impediment.

The Town has concluded that the objective sought by the TDR Program may be achieved more efficiently and more equitably by repealing Local Law No. 8-208 and Chapter 139,

Article XXVII And Article XXVIII of the Town Code, and adopting land use zoning for the Town which will better meet the Town's current land development objectives.

Incentive Zoning

An incentive Zoning Overlay has been applied to multiple AR-40 parcels and to one Industrial parcel to allow developers to increase density and other concessions as shown on the Overlay Map in exchange for the amenities described on the Overlay Map. In general these amenities include:

- The provision of a conservation easement as shown.
- Enrollment of such areas into a NYS Agriculture district.
- Provision of utilities and infrastructure as shown
- The incorporation of natural resources such as woodlands, steep slopes, streams, and wetlands into the sub division design.
- Provision of Park Land.
- Roadway improvements.
- Provision of funds for the Town to apply to any of the above.

For the Industrial parcel a developer willing to conduct a "Brownfield Remediation" of the abandoned oil tank site; the site can be developed either as Waterfront Residential or Commercial. Sewers connecting to a publically owned wastewater treatment facility will also be required.

Where The IZ Overlay shows the need for a conservation easement and NYS Ag. District for property currently owned by the farmer it is the intent that if the farmer wishes to sell such property for development or wishes to self-develop that the easement be procured at the time of sale.

Justification for Non-Continuous Development

The Town may be approached by developers in the future for permission to develop in areas within the County Sanitary District not immediately adjacent to either existing development or to existing water and sewer infrastructure. In these instances, the Town may require developers to provide justification for their proposed development. Such justification should include plans for developer funding of needed infrastructure expansion, an analysis of the new development's impact on adjacent areas of the Town, and a discussion of ancillary costs of development such as improvements to existing roads, new roads needed and long-term environmental costs. The Town can request supporting documentation such as a market study to provide assurance that there is a market for the new development. This justification will help protect the Town from a failed development that may leave large infrastructure costs to be carried by taxpayers of the Town or a small group of residents within sewer and water districts. The establishment of new PUDs in the Town will be an acceptable method of evaluating ways to mitigate illogical infrastructure extensions. The intent is to reduce the long-term burden of operation and maintenance of infrastructure on the local tax base.

Public Safety

The Lysander Planning Board will develop a protocol to notify emergency response agencies of any new proposed developments within their districts or areas where services are provided. In addition, the Lysander Planning Board will be responsible for providing a protocol for fire districts, in particular, to review and provide feedback on any and all housing developments and new commercial and industrial construction in Lysander. This will help assure the inclusion of any necessary modifications into a part of the site plan approval process.

Transportation

In developing this Plan the committee applied for and was awarded a substantial grant for the Syracuse Metropolitan Transportation Council (SMTC) to conduct a Traffic Study resulting in valuable data and recommendations upon which this Plan is based. See Appendix B for the complete Traffic Study.

With the growth of the Town of Lysander over the past 25 years, it has become obvious that traffic is and will be impacted by the fact that a substantial portion of town residents need to cross the Seneca River when they leave the town especially if they wish to go south toward Syracuse or east toward the Town of Clay. The Seneca River and a short section of the Oswego River comprise approximately 31 miles of the Town's boundary and can only be crossed at the Belgium Bridge on Route 31, the 370 bridge into the Town of Salina, the bridge on Route 48 in the Village of Baldwinsville, and the bridges on Route 690 near the 370 exit as well as the bridges at the end of Lamson Road to Phoenix and at Jack's Reef.

The State and County Departments of Transportation have pointed out to the Town and its Planning Board and Land Use Plan Committee particular concerns for future development on the Cold Springs Peninsula to the point that future planned build out at Timber Banks exceeding 200+/- units will require additional traffic study.

A 2008 study of the NYS Route 370 corridor pointed out that "current and future developments on primarily agricultural lands … have the potential to burgeon into significant problems." A communication from the NYS Department of Transportation in January 2014 points out the importance of preserving open space and farmland to prevent traffic from drastically increasing on the Cold Springs Peninsula. The Town through incentive zoning and clustering will encourage the continuance of farming on the peninsula which will also preserve the view sheds.

Discussions with the State and County Departments of Transportation and with the Syracuse Metropolitan Transportation Council make it very clear that there will be no expansions of major highways or bridges in or near the Town in the foreseeable future. While there may be some development pressures on the Cold Springs Peninsula, expansion beyond projects already approved on and near River Road will likely need Traffic Signals and Turn Lane additions to relieve traffic problems at the intersections of River/370, Hicks/370, Doyle/370 as well as at the five corner intersection of River, Patchett, and Hicks.

Development taking place on 370 must limit access points and be carefully planned as to sight distances. Any new curb cuts on either River Road or 370 should be limited to preserve the function of moving traffic rapidly.

In addition to the SMTC Study a study done by the Lysander Town Engineer has shown that major developments of homes on large lots required where there is neither water nor sewer or even where there is water but no sewer results in road maintenance costs well beyond what the taxes on those homes will pay. Accordingly it does not make sense to allow further major developments containing homes at the R-40 zoning level and perhaps not even at the R-20 level without section 278 cluster use and/or some form of incentive zoning which would leave open space and minimize the length of roads and other infrastructure in new developments..

ExistingHighwaySystem

Any assessment of the existing highway system and future highway needs involves an understanding of highway function and an examination of the system's existing characteristics. Existing characteristics include highway jurisdiction, traffic volumes, highway widths, accident frequency, and planned improvements.

Highway Function

Highway function refers to the role of a particular road in the context of the overall highway network. The two major functions of any highway system are: (1) to carry traffic, and (2) to provide access to adjacent land. Individual roads are classified according to the extent they serve one or both of these functions. Conflicts between these functions often arise as development progresses (turning movements increase as the number of adjacent land uses increase, thus slowing the flow of through traffic). As these conflicts increase, there are demands for new or improved highways and/or limits to new development.

Highways are classified according to their relative traffic carrying/land access functions as freeways, arterials, collectors, and local streets. The freeway or interstate highway primarily serves to carry traffic; no direct access to adjoining properties is provided. At the opposite end of the continuum is the local street which has land access as its primary purpose; traffic movement on a local street is clearly a secondary function, and through traffic is desirable. Collectors and arterials fall between local streets and freeways as described below:

HighwayClassification	Function
Local Street	• Provides access to abutting properties (land service). • Provides intra-neighborhood traffic • Moving traffic is secondary function.
Collector Street	• Collects traffic from local streets and conducts it to arterials. • Provides inter-neighborhood traffic. • Land access is a secondary function.

Highway Classification	Function
Arterial	• Moves larger volumes of vehicles from one area to another (inter-community traffic movement) and to freeways. • Land access is a secondary function which should be kept to a minimum
Limited Access or Freeway	• Carrying traffic is the only function. • No land access function.

The State highways in the Town function as arterials (Routes 370, 31, 48) or as freeways (I-690). Most County highways function as collectors and most Town highways function as local streets; the exceptions are County roads which function as local streets (Sprague, Cross Lake Road, and North Cross Lake Road) and local roads which function as collectors (Willett Parkway, West Entry Road, and Drakes Landing Road).

Route 631, a Provisional State highway can be classified as a hybrid; a freeway between 31 and 370 and an arterial otherwise. This route is the first part of the long delayed Baldwinsville bypass which may never happen without continued pressure by local government. However it does provide some relief since it links 31 at Willet parkway to I-690 at Hencle Blvd.

While the four classes of highways are distinct in concept, in reality there is an inherent conflict between their respective land service and traffic service functions. This is especially true with respect to local streets, collectors, and arterial highways. While this conflict may not be readily apparent when development is minimal and traffic volumes are low, the conflict becomes increasingly apparent as development progresses. The following example illustrates this point:

> Route 370 is a State arterial highway which carries significant externally generated and local traffic either directly to Syracuse or to other employment centers south of Lysander. In addition to moving inter-community traffic, Route 370 performs a land service function for abutting properties (residential and commercial) which have direct driveway access onto the highway. Each driveway represents a potential source of friction with through traffic; consequently as frontage subdivision increases and more driveways are added, the friction increases and the conflict between land service and traffic service functions becomes more apparent. Ultimately, traffic flow is seriously impaired and traffic volumes increase to the point where the highway is no longer a desirable place to live. Neither highway function is well served at this point.

The function that a particular highway plays in the Town highway system must be an integral component of the development review process and be incorporated into local land use controls, where necessary. This will be increasingly necessary to balance the highway improvement needs created by additional development and increased traffic in an era of limited public fiscal resources.

Highway System Characteristics

The SMTC Traffic Study evaluated many roadway travel conditions through statistical analysis. The following captures the results of these analyses.

Traffic Volumes

The Route 370/John Glenn Boulevard intersection, which is just outside of the Town of Lysander (in the Town of Salina), experiences the highest traffic volumes of all of the intersections included in this analysis. The intersections with the next highest traffic volumes are Route 370/Route 48 in the Village of Baldwinsville and Route 31/River Road. At the Route 370/Route 48 intersection, the northbound right-turn and westbound left-turn volumes are notably high, with about 430 vehicles during the AM peak hour and over 500 vehicles in the PM peak hour.

Table 2 compares the volume of traffic entering Route 690 southbound (SB on) and exiting Route 690 northbound (NB off) at the Routes 370/31 and Hencle Boulevard exits during the morning and evening peak hours. (Since Hencle Boulevard is the northern terminus of Route 690, traffic can only enter to travel southbound and exit from Route 690 northbound at this location. The exit at Routes 370/31 also allows for northbound entering and southbound exiting movements, but these volumes are relatively minor.)

As shown in the SMTC Study Appendix B the AM peak hour southbound on (entering) volume and the PM peak hour northbound off (exiting) volume are the highest volumes. This is expected since these are the movements likely to be made by a commuter living in the Town of Lysander and working
anywhere south of the town, including in Syracuse. Significantly more traffic utilizes the Hencle Boulevard exit for these movements than the Routes 370/31 exit, but this is largely due to the high northbound and southbound through movement volumes at the Route 690/Hencle Boulevard intersection. These are the turning movements that would be made by commuters accessing points north of Hencle Boulevard in the Town of Lysander and into Oswego County.

Most of the residential development within the Town of Lysander is located east of Route 690. The turning movement volumes at the two Route 690 exits for traffic to/from points to the east is fairly evenly split, with about 150-200 vehicles entering Route 690 southbound from the east during the AM peak hour and exiting Route 690 northbound to the east during the PM peak hour at each exit.

Traffic volume data for road segments and bridges

The SMTC staff examined Annual Average Daily Traffic (AADT) data available from the NYSDOT
Traffic Data Viewer for road segments throughout the Town of Lysander.

The highest traffic volumes in the town are on Route 31 between the Village of Baldwinsville and the Town of Clay. With over 19,700 vehicles per day, the Route 370/Route 31 overlap within the Village of Baldwinsville is the segment with the highest traffic volume. Most of the other road segments with substantial traffic volumes are located in the southeastern portion of the town (Baldwinsville, Radisson, and Cold Springs areas). Route 48 north of Hencle Boulevard is an exception to this statement, carrying nearly 8,400 vehicles per day and providing access to/from Route 690.

The Seneca and Oswego Rivers form the southern and eastern borders of the town and, as such, access to the town is limited by the available bridges. Table 3 lists the bridges over the Seneca and Oswego Rivers along the border of the Town of Lysander and the AADT carried by each bridge.

Based on the traffic volumes in Appendix B - Table 3, most traffic accesses the Town of Lysander via the Route 31 bridge to/from the Town of Clay. Route 690, Route 370, and Route 48 also carry substantial traffic in and out of the Town of Lysander. The Plainville Road and Lamson Road bridges carry significantly less traffic.

HighwayAccidents

- The SMTC examined the available accident data for intersections and road segments, including bicycle and pedestrian accidents, in the Town of Lysander for the most recent three-year period available (December 1, 2010, to November 30, 2013). Accident data were obtained from the NYSDOT's Accident Location Identification System (ALIS). The SMTC also included the intersection of Route 370/John Glenn Boulevard (in the Town of Salina) in this analysis.

- Accident rates at the Route 370/Route 48, Route 31/River Road, and Route 370/Hicks Road/Hayes Road intersections all exceed the published statewide average rate for similar type intersections. Rear-end or right-angle collisions were the most common collision type at these locations.

- The Route 370/John Glenn Boulevard intersection had the greatest number of total accidents over the three-year period examined (total of 40 accidents). The NYSDOT has investigated this location and recommended the installation of an exclusive eastbound right-turn lane on Route 370 and a second northbound left-turn lane on John Glenn Boulevard (with receiving lane on Route 370 westbound). This safety improvement project is currently included in the SMTC's Transportation Improvement Program to start the scoping phase in Federal Fiscal Year 2014. The Town should continue to lobby for this project as it affects many residents.
- For the road segments within the town with the highest accident rates, the majority of accidents were relatively minor, being classified as property damage only or "non-reportable" (meaning property damage of less than $1,000 with no injuries or fatalities).

- The segment of River Road from Doyle Road to Patchett Road had the highest accident rate within the town, and the vast majority of collisions on this segment were collisions with deer or roadside objects, not collisions with another motor vehicle. Many of these occurred under dark (night/early morning) conditions.

- There were no fatalities at intersections within the town during the time period examined. There were two fatal accidents on road segments within the town, each with one fatality, during the three-year period examined. One of these collisions occurred on Route 690 southbound, just south of Hencle Boulevard. The other fatality was a collision with a pedestrian that occurred on Route 370/Route 31 between Route 690 and Dexter Parkway.

- Pedestrian and bicyclist accidents mostly occurred within the Village of Baldwinsville, which likely has more pedestrian and bicycle activity than other parts of the town. None of the pedestrian or bicycle accidents occurred at the same location more than once.

HighwaySystem'sConfiguration

Lysander's highway system is unique in that the Town can be considered an island from a transportation perspective. The Town is separated from the rest of Onondaga County by the Seneca and Oswego Rivers and the only links between the Town and the employment and retail centers in the remainder of the County are the Town's six bridges. The bridges include the bridge at West Phoenix on Lamson Road; the Belgium Bridge on Route 31; the Cold Springs Bridge on Route 370; the bridge at Baldwinsville on Route 48; the bridge at Jack's Reef on

Plainville Road and a four lane bridge west of Baldwinsville on Route 690. The existence of these bridges channels traffic along certain key roads and necessitates that these routes be protected for their traffic carrying role.

The other aspect of Lysander's highway system that needs emphasis is that most of the County roads in Lysander were originally built to serve a farm-to-market function, but now serve as commuter roads. Although many of these roads are in rural areas, the trend for increased residential development on scattered rural sites suggests the long-term desirability of preserving these roads as high speed (55 miles per hour) collectors and developing residential sites so as to avoid future conflicts between land use and traffic. In order to provide for highway drainage, adequate shoulders and any needed alignment improvements, additional right-of-way may be needed.

IssueSummarization

The following issues have been identified during the investigation of the Town's current highway system and through meetings with Town officials:

- Methods need to be developed to protect the traffic carrying capacity of the Town's arterial and collector highway system.

- The protection of the functioning of highways leading to the bridges connecting the Town with the rest of Onondaga County should receive ongoing attention.

  - A bypass around the Village of Baldwinsville would be important to the traffic systems of both the Town and the Village. While there is no likelihood of completion of the by-pass in the foreseeable future, the Town should ensure that no steps are taken that would preclude its completion to either Route 48 or Route 690 in Van Buren and work with the Village of Baldwinsville and the Town of Van Buren to periodically remind Albany of the need.

- Since arterial highways and collector roads are vital to the Town's transportation system for their traffic carrying function, a hierarchy of road classification needs to be continued.

- The need for new collectors to serve future development should be explored so that potential future rights-of-way can be protected.

- Increased local road mileage will result in increased maintenance and capital repair costs as the road system ages; these future expenses should be considered in overall Town fiscal and capital planning. Care should be taken to avoid creating new roads where the anticipated development will not be expected to generate enough taxes to maintain those new roads.

Policies

The following transportation policies are intended to guide the Town in land use decisions affecting the transportation system of the Town. The overall goal of these policies is to protect and enhance the ability of the Town's transportation system to accommodate current and future traffic and land access requirements.

- Collector and arterial highways will continue to be designated and their traffic carrying function will be protected; future development along these designated highways will be located and designed to have minimal impact on their traffic carrying function.

- The rights-of-way of existing collectors and arterials should be expanded where feasible to sufficient width to permit any future road improvements such as turn lanes and signalization of critical intersections.

- Potential major commercial and industrial developments (outside of Radisson) will occur along arterials and collectors with necessary access points located at proper locations.

- To minimize the number of curb cuts along arterials and collectors, design techniques must be utilized such as reverse fronting of subdivisions and creation of local internal streets. Interior development of parcels (rather than frontage subdivisions) will encourage variable setback requirements, lot width requirements, lot size requirements, interior roadway extensions, or other suitable techniques.

- Subdivision streets in major subdivisions must provide interconnections with adjacent developed and undeveloped lands without burdening residents along these streets with traffic loads inappropriate to the character of the area. The intent is to decrease the number of vehicles needed to enter collectors and arterials for the purpose of local trips to an adjoining subdivision; also more interconnections provide additional routes for safety vehicles to enter subdivisions. Walk and Bikeways along such roads should also be considered.

- Town's Pavement Management Plan must be fully implemented and include an ongoing process of capital planning and to cope with any increased mileage of local streets

- The use of cul-de-sacs along arterials and collectors must be minimized to protect the functioning of these roads; while cul-de-sacs are appropriate along local streets, their length should be limited for safety reasons. Existing cul-de-sacs over 500 feet in length should be extended to create through streets where feasible.

Highway Supplemental Regulations

Article XVII of the Town's Zoning Ordinance promotes a pattern of land development for present and future needs of the Town's highway network. The regulations try to balance the functions of the arterial highways and collector roads with the use and design of nearby properties. The major highways and roads are listed below:

- Arterials: Routes 370, 31, 631 and 48.

- Collectors: River Road, Hayes Road, Hicks Road, Pendergast Road, Lamson Road, Sixty Road, Smokey Hollow Road, Hencle Boulevard, Willett Parkway, Drakes Landing Road, West Entry Road, Church Road, East Mud Lake Road, Fenner Road, and Plainville Road.

Minimum Right-of-way

For collectors and arterials, the minimum recommended right-of-way for new and existing roads will be 80'. Since most existing arterials and collectors in the Town are either 3 rods (49.5') or 4 rods (66') wide, additional right-of-way will be needed to achieve the 80' minimum. Developers can be encouraged to grant additional right-of- way (7' for a 4 rod road or 15' for a 3 rod road) to meet the requirement. These grants of right-of-way will reduce the amount of land that will have to be purchased in advance of any future road improvements and will make such improvements more economically feasible in the future.

Subdivision Design

Proper design of subdivisions can minimize road maintenance costs and ensure safe access to individual home sites. Beyond being diligent in selecting the location of highway access points for major (five lots or more) subdivisions, the town should carefully scrutinize minor (four lots or fewer) subdivisions which create a few frontage lots from a larger parcel having significant frontage along a highway and/or large acreage. The location of these new frontage lots may define the eventual access points for the remainder of the parcel and these remaining access points for large interior parcels must be properly located for the potentially greater traffic activity they may generate. The best procedure is for the Planning Board to require a sketch plan for the entire large parcel with future access points identified, drainage problems noted, and other salient features identified; this sketch plan can then be used as a basis of judging the merits of minor subdivisions as well as setting precedents for any future subdivision of the original parcel.

During subdivision reviews, desirable design features include properly locating access roads into the subdivision, street layouts which provide for easy maintenance (for example, by controlling the location and length of cul-de-sacs), street connections between subdivisions where feasible (to provide alternate access for emergency vehicles and to reduce the need to travel on main collectors or arterials), and minor collectors (connecting collectors or arterials) sited to minimize impacts on adjacent residences. Subdivision reviews shall ensure that appropriate lot proportions are maintained when lots are modified to satisfy transportation goals.

Proposed New Collectors and Arterials

As the Planning Board reviews future development including the Town's current highway system and the possible areas of future development, its highly likely that new collector highways may be necessary to serve undeveloped areas of the Town or to connect existing parts of the arterial/collector system.

River System

The Oswego River, Seneca River, and Cross Lake represent roughly 31 miles of the town's nearly 50 miles of border. Few non coastal towns are fortunate enough to be so bounded. These water bodies are unquestionably one of the town's greatest assets and must be protected and preserved.

The river system around Lysander is part of the larger Barge Canal that provides access between Albany and Tonawanda as well as Oswego. The canal's role as a commercial cargo carrier has all but disappeared. The primary users of the Town's waterways are pleasure craft and the numbers of pleasure craft locking through to the Town's only lock (Lock 24) has averaged nearly 2500 per year between 2009 and 2013. It is estimated that more than 3 times that number travel the 25 plus miles on either side of lock 24 to Oneida Lake to the East, Cayuga/Seneca Canal to the West and Phoenix on the North.
Increased emphasis on the attractiveness of the Town's Waterways has contributed to substantial new development including recreational, residential, commercial (primarily dining), a marina, and two river parks.

Three significant considerations to shoreline development exist in many areas where:
1. Wetlands, floodplains and state flowage easements extend hundreds of yards from shore, limiting developable shoreline
2. Existing seasonal cottages are falling into disrepair, and may utilize outdated and insufficient wastewater treatment; transition to year-round or larger residences can present significant planning and permitting challenges;
3. Expansion of public wastewater infrastructure to facilitate shoreline development may be cost-prohibitive, and is limited to serviceable areas; additional study is needed

Once the above obstacles are overcome the river system has the potential to see more intensive future use and development, particularly since the shorelines of other water bodies in the area have become almost entirely developed; the river system in Lysander is one of the last areas with some vacant privately-owned frontage along any water body in the county. Overcoming the above obstacles will be critical.

IssueSummarization

The following are the key issues the Town in concert with the County must resolve concerning the water bodies:

- What types of development should the Town encourage and in what locations?
- What new controls, if any, are needed to ensure proper town review of development proposals along the river?
- How can public access to the lake / river system be improved?
- What steps need to be taken to prevent the natural systems along the river from being compromised by new development?
    - What steps are needed for improving water quality
    - What steps are needed for sustainable development in parallel with creative use of wetlands
    - What steps are needed to restore/replace blighted properties

Policies

The following policies related to development and redevelopment are intended to guide the Town in making land use decisions affecting the river system around Lysander:

- Development and Redevelopment along the river system's shoreline must not compromise designated wetland areas or infringe upon the flood storage capacity of the river system.
- Protection of the waterways from faulty septic systems is of critical importance, not only to the Town but the entire reach of these waterways. The Town must set strict conditions on waterfront development and redevelopment to assure adequate sewage disposal is achieved.
- The Onondaga County Health Department and the Department of Water Environment Protection must be integrally involved in all waterfront development and redevelopment.
- Any renovation which would increase the volume of an existing structure which is currently being served by a septic system must have said system reviewed and approved as "meeting or exceeding current standards" by Onondaga County Health Department as a condition of the issuance of a building permit.

- The design of new developments along the shoreline of the river system must consider their effects on existing vegetation, the need to minimize erosion, the aesthetic appearance of the development from the river, and the proper location of boat access points.

- Commercial developments must be carefully located with sufficient parking not encroaching on the shoreline, control over access locations to the river and adjacent highways, proper flow of water through any manmade channels, and minimal effects on surrounding land uses.

- Greater public access to the river should be achieved through the development of additional commercial or public launch sites along the river system.

- Design of public or private access to the river must minimize impact upon the physical and environmental characteristics of the site.

- Drainage systems emptying into the river or streams tributary to the river must incorporate green infrastructure such as the County's "Save the Rain" techniques to prevent pollutants from entering the waterways. See also NYS DEC Stormwater Management Manual.

- The Town must see that the developer coordinates review of any water front development with the Onondaga County Health Department, the Department of Water Environment Protection the New York State Department of Environmental Conservation, the Corps of Engineers, and New York State Canal Authority.

Implementation

In order to control development along the Town's Waterfront, the Town needs to review and expand Article XXII 139-61 Riverfront Development Overlay Controls to avoid conflicts and to encompass all properties having direct access to and impact on the river system. These Controls add an extra layer of scrutiny and design criteria to the existing zoning along the Town's Waterfront. The controls apply to new developments although substantial modifications to existing uses such as expansion, changes to water or sewer systems any changes to stormwater drainage or demolition and replacement must also require review and approval. The review could be either a controlled site or a specific permit review and could be done by the appropriate board.

- Setbacks from river: Keeping permanent structures (except for docks and boat launches) back from the shoreline is important both to limit shore erosion during construction, to minimize the impacts on structures of any subsequent erosion or flooding, and to improve the aesthetics of the river shore by providing green space between structures and the water. Since lots vary greatly in depth, a standard must be flexible. In addition to addressing variations in lot size, future regulations should take into consideration the width of

publicly owned shoreline and the proximity of private property to the actual shoreline. It is suggested that setbacks for structures be the same as front yard setbacks from the highway right-of-way and be measured from the mean high water mark. Where existing lot sizes do not allow for this setback, the river setback could be reduced but in no case closer than 25 feet from the flood plain or the Flowage Easement whichever is greater.

- There should be a minimum lot width for lots fronting on the shoreline; this width will be measured along the Front lot line (street line)

- The Overlay Controls regulate the amount of clearing of natural vegetation along the shore. Minimal vegetative removal is desired to help prevent shoreline erosion, to provide a vegetative buffer strip to help filter out pollutants from stormwater runoff, to enhance the aesthetics of the river system, and to provide habitats for shore fauna. Clear cutting of shoreline vegetation will generally not be permitted and regulated areas will include much of the land in the shoreline setback area. Where no established vegetation currently exists or where clear cutting is unavoidable, new plantings will be required.

- The Town will examine the provision of river access and encourage the use of boat slips versus docks where physical and environmental considerations allow. Where multiple slips are proposed for a waterfront subdivision, an internal marina will be encouraged where physical and environmental considerations allow

- Any proposals to develop in or adjacent to either shoreline or floodplain areas will require special site review in addition to SEQR review and necessary State and/or Federal permits. Site plans will include necessary flood proofing of structures and ancillary structures as well as attention to mitigating effects on surrounding natural areas**.**

- In light of the 2010 NYSDEC "Polluted" designation for the Seneca River and a substantial portion of Cross Lake the Town should seek assistance from the County Health Department and NYS DEC to create more stringent sewage disposal requirements; not just for the Town but for the entire waterway.

- Any new development along the Town's waterway (within 500 feet of flood plain) will not be allowed to include septic systems, and must connect to a Publically Owned Wastewater Treatment Facility such as the Baldwinsville Seneca Knolls Plant

- Any re-development however small along the Town's waterway (within 500 feet of flood plain) must find suitable means for sewage treatment to be approved by the County Health Department.

Parks and Recreation

ExistingFacilities

The Town currently has one main park of **75** acres located immediately north of the Village of Baldwinsville on Smokey Hollow Road. The park contains 4 tennis courts, a basketball court, 2 ball diamonds, a football field, a soccer field, 2 volleyball courts, a walking path, various pieces of play equipment, a large pavilion, a small pavilion, a community room, restrooms/security office and a maintenance facility; the large land area provides room for walking, picnicking, and other unstructured activities. Possible areas of expanded activities could be additional practice fields.

The Radisson Community includes numerous open space areas, trails throughout the community, tennis courts, ball fields, swimming pool, fishing ponds, golf course, a community building, and other amenities for residents. Generally, only the walkways are open to the public with other facilities available to residents of Radisson. The Radisson walkways are an excellent example of thinking of Parks and Recreation on a level different from an open space filled with ball fields and playgrounds.

The schools in the Town include athletic fields and some other facilities open to Town residents. All of these school facilities are located in the Village of Baldwinsville with the exception of Palmer School on Hicks Road.

Onondaga County operates a large nature center at Beaver Lake (approximately 670 acres) which serves the entire County as well as visitors from neighboring counties; in 2013 attendance was approximately 325,000. Beaver Lake is a wildlife sanctuary, has interpretive displays, features trails throughout the nature center, and conducts a wide variety of educational programs during the year. The County anticipates maintaining current levels of these activities in the future.

The State of New York maintains an even larger facility at the Three Rivers Wildlife Management Area; this management area contains 3,462 acres and consists of land left over from an armaments plant used during World War II (the other 3,000 acres of the original armaments plant was used to create Radisson). The management area is used for hunting, hiking, camping, horseback riding, and for dog field trials. Activities tend to be less structured than those at Beaver Lake and there are no permanent facilities for public use (there are State maintenance facilities on the site). The management area is spread across a large area of the Town northwest of Radisson and does not constitute one contiguous area, but rather three separate areas.

IssueSummarization

As a result of meeting with recreation personnel from the State, County and Town, the following issues were found to be paramount in the Town's recreation planning:

• What general recreation strategy should the Town pursue given its existing facilities over the next 5 years?

- Can walkways be implemented as part of new developments to interconnect between developments and to such attractions as the YMCA or the Lysander Ice Arena.
- Where and when will new facilities be needed in the Town to serve growing populations and is the development of a new facility feasible?
- How can the Town take advantage of the river system along its boundaries in terms of recreation planning?
- Can the Town, in conjunction with the Town of Van Buren and/or the Village of Baldwinsville create opportunities for canoe and kayak access to river, above and beyond what may already exist at present?

Can the Town forecast the recreational needs in the near future, in order to accommodate resident's needs?

Will the YMCA have an impact on Town programs or will there be an opportunity for the Town to offer programing in conjunction or through the YMCA?

Are there funds available to create any new Park facilities that other Towns have been successful in securing?

Would the Town of Lysander benefit from any possible consolidation or shared services with Van Buren or the Village?

Policies

The following policies will be used to guide land use decisions regarding recreation activities in the Town:

- The Town's central park should be the focus of major recreation programs on a Town-wide basis and there is room on the site to offer additional programs and facilities.

- Revenues from subdivision fees will be used in parallel with Incentive Zoning Program to acquire and equip an additional park.

- The borders of existing parks should be protected by buffer strips from any new development.

- The Town should encourage greater public access to the river system.

Implementation

A park in the Cold Springs area will serve the numerous subdivisions being developed along River Road and Route 370; the density of development has approached a level needed to justify a park. The application of the Incentive Zoning process should be effective in developing a park in this area. The park should be located a distance away from the Village since school facilities are available in the Village and in a location easily accessible from all areas in the peninsula. A location adjacent to Route 370 will provide the best access although a site along collector roads near Route 370 is also acceptable.

Walkways should be considered for major new developments to interconnect between developments and to other attractions such as public river access, the YMCA and the above mentioned park. The Town will require these walkways be owned and maintained by the developer or a Home Owners Association (HOA).

All HOAs in the Town must be NY State Attorney General approved.

The Town should encourage either the public or private development of at least one and eventually as many as three sites for additional general access to the river system. The development of these sites needs to be given some priority since suitable land along waterways is becoming more scarce and expensive. One site in the eastern portion of the Town and one west of Route 690 would seem to be the minimum necessary to serve Town needs. The sites will need sufficient land to park cars and trailers and to provide buffers from surrounding land uses. Public launch sites can be developed as a part of a larger neighborhood park or, more likely, as freestanding sites. Such sites may be acquired when subdivisions are developed along the river frontage and the sites should be incorporated into the overall design in a way that would not be detrimental to neighboring residential use. Private sites could be developed in the form of additional marinas with the Town ensuring that adequate parking and launch space are included in any proposal.

The Town needs to continue to monitor its parks and recreation needs and adjust its plans depending on Town growth patterns and residents' recreation needs. As the Town's recreation needs are refined, a commitment of resources to supplement subdivision lot fees may be required.

Agriculture

- The Town will encourage the use of the Town's agricultural district to protect agricultural activities in the Town.

- Agricultural and residential uses in areas outside the County Sanitary District boundary will be protected from each other primarily through larger residential lot sizes; a two acre minimum lot size is recommended for areas zoned Agricultural "A." A less dense pattern of development will help forestall premature conversion of agricultural land to vacant or other uses.

BackgroundInformation

While agriculture in Lysander continues to involve large tracts of land, the number of people living in the Town directly employed in the Agriculture Industry has decreased. There has been a decline in the number of commercial farms in recent years with small farms being consolidated into larger farm operations either through purchase or lease agreements. However at the same time there is an increase of small "family" roadside stands / small farm operations which produce some limited agricultural products for sale to the public as a source of added income to off farm employment, as well as a sense of the owner's personal fulfillment for being part of the "agricultural community". The raising of poultry dairy cows, fruits, vegetables, and grains are the primary farming activities within the agricultural sector of the Town.

The number of acres currently being farmed is unknown and can vary from year to year. There is one Agricultural District in Lysander, District No. 3, which comprises approximately 25% of the total land area of the Town.

Lysander is similar to many communities in New York State in that the rural portion of the Town is characterized by the presence of agriculture. Through the years, community planning efforts and discussions among local residents reveals that the preservation of economically viable agriculture in the community is a key issue facing the local population. Therefore, the importance of linking Town goals and objectives to the preservation of agricultural resources is a key aspect of the quality of life the Town wishes to maintain.

The preservation of active farmland is one of the objectives of this Land Use Plan and it is important that this be achieved through the comprehensive planning process. The production of this Land Use Plan provides the opportunity to foster that objective, recognize and encourage responsible development, and mitigate impacts to infrastructure and the agricultural community.

If the community looks at the overall land area and the fabric of development areas versus agricultural lands, many impacts can be mitigated by establishing a comprehensive approach to preserve the remaining large tracts of farmland. A rational planning and zoning approach will foster the objective of maintaining the efficiency and productivity of farmland in targeted areas of the Town for generations to come while permitting residential development at a desirable density.

Issues

The following issues relate to the future of agricultural land use in the Town of Lysander:

- How will the continuance of the agricultural district affect the pattern of utility extensions and residential development in the Town, particularly on the Cold Springs Peninsula?

- How will the Agricultural District affect residential development densities in the area outside the County's Consolidated Sanitary District?

- Should the Town continue to encourage the use of agricultural districts and, if so, for how long and to what geographic extent?

    - How can economically viable farmland and tillable acreage be preserved and balanced with the inevitable growth of the community preserved in a way that is financially beneficial to farming as a business?

    - If further development of vacant land or farmland is foreseen on the Cold Springs peninsula, what are the impacts and methods of mitigation to the underlying infrastructure (e.g. roads and sewers) necessary for this development to proceed?

    - Should all vacant land or farmland be preserved?

Policies

The following policies have been established as part of the Lysander Land Use Plan update in response to ongoing public concern regarding the loss of local agricultural operations and the potential impact of sprawling development on the cost for municipal services and quality of life.

- The Town will maintain an economically viable agricultural presence in those areas zoned AR-40, especially in the Cold Springs Peninsula through the use of Incentive Zoning Overlays incorporating Conservation Easements and NYS Agricultural

Districts where appropriate.

- The Town will continue the existence and possible expansion of the Town's Zoning Agricultural District in the western portion of the Town as a means to maintain an agricultural presence and keep the rural character of the area intact, and to avoid unnecessary extensions of utilities to these areas.
- The Town will support farm owners pursuing conservation easements for agriculture and open space protection.

- Farming within the Agricultural District and in areas outside of the County Sanitary Sewer District will be encouraged as a means of providing open space, enhancing an important economic segment of the Town's economy and preserving the rural character of the non- suburban portions of the Town.

- Zoning in agricultural areas outside the limits of public utilities will encourage less dense development and will be of a character that will not encourage premature conversion of agricultural land to vacant or residential/commercial uses.

ImplementationProcedures

Most of the areas used for agricultural purposes in the Town are zoned Agricultural (A) District in the zoning ordinance. The following implementation procedure is suggested to provide an appropriate framework to protect the Town's agricultural interests.

Conduct a study whose goal would be the production of a "Town of Lysander Agriculture and Farmland Protection Plan". Goals within the scope of the Plan could be:

- Identify policies for the conservation and protection of current productive farmland and its support acreage,
- Determine criteria and prioritize the agricultural land within the Town which should be preserved,
- Strengthen the reputation of Lysander's agricultural reputation and work for the support of the non-farm residents of the Town by increasing the awareness of the significance of local agriculture in daily life,
- Encourage the Town and its residents to support future economic development which could be the result of increased agricultural production, value added production agritourism, etc.,
- Ensure local regulations are supportive and protective of agricultural activities.

Except as discussed below until such study is completed the current “A” and “AR-40” Zoning should provide adequate protection, as has been demonstrated over the past several years.

Significant acreage on both sides of Route 370 on the Cold Springs Peninsula need not depend on the results of such study since they have, for many years, proven to be very productive and are perhaps the most visible farm land in the entire community, even to the point of demonstrating the benefits of agribusiness including agritourism attracting visitors to the orchards and berry fields. In keeping with the community’s strong desire to retain such farm land it is recommended that major portions of these farm lands immediately adjacent to 370 be preserved through the application of Conservation Easements, the continuation of the NYS Agricultural District which already exists to the Northeast of 370 and the enrollment of a new NYS Agricultural District to the Southwest of 370. Residential development to the Northeast and Southwest of these lands shall be allowed at an increased density through the application of the incentive zoning process which would exchange increased density allowance for the developer’s agreement to provide sewer extensions and appropriate Buffers at between the farm land and the residences

Physical Environment

EnvironmentalComponents

As elements encompassed by the physical environment are numerous, including characteristics found on every site as well as unique special features found only within limited locations a l l sites will have soil, topographic, drainage, and groundwater characteristics which need to be evaluated on both a Town-side and individual lot basis. These characteristics will vary across the Town providing opportunities and constraints to individual site development. The unique or special features may be described as landforms performing certain functions which are not found within the general environment and which are limited to definable areas. The most significant of these unique features are the wetlands and flood hazard areas.

Another distinguishing factor of these elements is the manner in which they are regulated. Wetlands and flood hazard areas are recognized for their unique roles within the general environment and are, therefore, subject to special controls at Federal, State or local levels. The other elements of soil, topography, drainage and groundwater resources form the characteristics of every site and are not specifically regulated. However, the variations in these characteristics are an important consideration to the Town in promoting land use patterns, providing public facilities, and reviewing project design.

Wetlands

A wetland is an area of land where groundwater level is at or near the soil surface for a significant part of the year. Common names associated with wetlands include bog, marsh, swamp, and wet meadow. Historically, wetlands were viewed as basically useless areas being neither fully land nor fully water. Thus, wetlands needed to be either drained, filled, or dredged in order to accommodate other “useful” purposes such as farming, construction, or improved river navigation. Since the 1970s, the general perception of wetlands has been changing resulting in the recognition that these wetland areas are important and have intrinsic value.

The recognition of the importance of wetlands has taken its most significant form through Federal and State legislation. The Federal Clean Water Act and amendments to the Rivers and Harbors Act of 1899 empowered the U.S. Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (CORPS) to protect the wetlands that relate to the nation's rivers and major waterways. The NYS Freshwater Wetlands Act (1975) directed the New York State Department of Environmental Conservation (NYSDEC) to protect wetlands in order to secure their natural benefits consistent with the general welfare and development of the State. The State also enacted the Environmental Quality Review Act (SEQR, 1978) which requires that State, County, and local agencies identify and fully consider the effects an action (e.g., development project approval) may have upon environmental features (including wetlands).

The involvement of multiple levels of government is indicative of the fact that wetlands provide many benefits. NYSDEC has identified the following benefits attributable to wetlands:

1. Flood and stormwater control (flood storage area)
2. Wildlife habitat (birds and mammals)
3. Water supply (surface water and groundwater recharge area)
4. Water quality (cleansing and filtration of run-off)
5. Fish habitat (spawning grounds)
6. Food chain (supporting the fish and wildlife habitat)
7. Recreation (hunting, fishing, biking)
8. Open space/aesthetic (visual diversity, physical separation)
9. Educational/research (biological/geologic studies)

BenefitsofWetlandProtectionforaTown

The Federal and State involvement is based, in part, on the fact that an individual wetland is part of a wide-ranging ecological system which crosses many political jurisdictions. Though Federal and State agencies provide the principal reinforcement and protection of wetlands, this should not rule out local concern for and involvement with wetlands.

Of the nine natural benefits identified by the State, five can readily be considered as affording significant positive effects within a town. The wetlands habitat, with its combination of plants, organisms, soils, and topography can contribute to the quality of a community. Conversely, the reduction or loss of a wetland can necessitate the installation of expensive public facilities to compensate for the functions previously provided by the wetland.

Flood and Stormwater Control: A wetland is a natural basin to receive stormwater run-off. It is a stable area that can store a large volume of stormwater, reducing its rate of flow. Stormwater is held until it is either absorbed into a groundwater system or discharged into a stream channel. This function lessens the volume and rate of flow within stream channels and, thereby, provides erosion and flood control.

Water Supply: As a meeting point between groundwater and the soil surface, a wetland allows rainwater to enter the groundwater system and replenish its supply.

Water Quality: The unique plants, organisms, and soils of the wetland act upon suspended elements within water. Their combined action filter, collect or discompose material in the water entering a wetland, resulting in the discharge of cleaner water. This function is especially important in areas relying upon potable groundwater sources for the recreational or potable use of nearby surface water.

Open Space/Aesthetic: Wetlands can be appreciated for the visual diversity they add to a developed area, although this is clearly the most subjective attribute of wetlands. Leaving wetlands in their natural state creates areas in contrast to structures, pavement and landscaped lawns. Wetlands can also serve as a buffer between different types of development projects or uses.

WetlandsinLysander

The preceding section describes the general benefits of wetlands and why they are protected. Wetlands vary in character, quality, and size as well as in the relative importance of each function. Both State and Federal agencies have identified and classified wetlands according to plant and animal life, soil data and topography. Within the Town, the State has identified the following types of wetlands:

Wetland Type	Acreage
Wet Meadow	190
Emergent Vegetation	382
Floating Vegetation	5
Flooded Shrubs	1,205
Deciduous Trees	3,016
Conifer Trees	116
Dead Trees	314
Upland Islands	48
Muck Land	7
Open Water	239
	5,522

This acreage is divided among 41 State regulated wetlands comprising approximately 14% of the Town area. These wetlands meet the minimum size of 12.4 acres (5 hectares) as provided in State legislation. Many of the State wetland areas as well as additional wetlands areas (including areas smaller than the 12.4 acres) are regulated by the Federal government. The Hydrology map shows the regulated wetlands.

Wetlands are concentrated along the Seneca River, in the Cold Springs Peninsula, and in abroad band running east/west across the central part of the Town. The western peninsula has several small wetlands but, in general, is less affected than other portions of the Town. The third largest wetland complex in the County encompasses portions of Beaver Lake Nature Center, Three Rivers Wildlife Management Area, and Dinglehole Swamp and covers 1,830 acres. It is alsoconnected to another large wetland of 963 acres which is largely included within the boundaries of the Three Rivers Wildlife Management Area.

Most of the wetlands are outside the boundaries of the Onondaga County Sanitary District. This is significant to the Town since most development outside the Sanitary District will rely upon groundwater supplies and on-site septic disposal. Since wetlands contribute to groundwater quantity and quality, it is important for existing and future residential development that the wetlands' integrity be maintained.

Wetlands within the Onondaga County Sanitary District boundary occur in two general areas: inland sites and along the river. The inland sites will be affected by the greater intensity of development occurring in the Sanitary District since this development will cause an increase in surface water run-off. The wetlands are part of the natural drainage system and should be protected to maintain this function. These inland wetlands can also provide the open space requirements for a development and aesthetically serve to stand in contrast to the landscaped character of adjoining developments.

Wetlands along the river are important for flood storage, water quality, and animal habitat.

TreatmentofWetlands

The Town's response to wetlands will be carried out through its zoning and subdivision controls including the SEQR review process and through coordination with NYSDEC and/or the CORPS. These two permitting agencies respond to the specifics of a proposal and how it may affect a particular wetland. They may require shifting of structures or improvements to avoid wetland intrusion and to lessen impacts, but they will not control the basic land uses. The Town establishes basic ground rules through its land use and lot size controls to which NYSDEC and the CORPS will have to respond. Therefore, the Town needs to establish land use controls and policies consistent with the respective wetland functions.

Generally, wetlands outside of the Sanitary District will require low intensity uses with large lots that will not overtax subsurface water supplies or the soil's septic absorption capacity; large lots will enable structures and septic systems to be kept away from wetlands.

Developments within the Sanitary District will tend to have water and sewer service and, therefore, can be more intensely developed. Wetlands protection in this area should emphasize the careful use of wetlands as both drainage areas and open space. Subdivision design which utilizes smaller lots may be the means of accommodating more intense development while leaving the adjoining wetlands intact.

Flood Hazard Areas

Areas subject to periodic flooding are shown on the Hydrology map, this map depicts the likely boundaries of a 100 year intensity flood event as determined by a flood insurance study of the Town. This and similar studies are prepared by the Federal Emergency Management Agency (FEMA) pursuant to the National Flood Insurance Program. The purpose of this program is to minimize flood damage to new developments located in flood hazard areas.

The Federal regulations and guidelines are intended to minimize damage caused by flood waters. The guidelines recognize two subareas within the flood hazard area: the floodway and the flood fringe. The floodway is the area within which flood waters are expected to flow and generally includes the stream channel and adjoining banks. The flood fringe is commonly called the flood plain and is the area of land expected to be inundated with standing or slow moving water. Within the floodway, Federal guidelines permit no structures that could obstruct or be dislodged by flowing water. The guidelines permit a range of activities within the floodplain provided proper flood protection measures are taken. These measures include elevation of the lowest habitable floor level to or above the 100 year flood level, flood proofing and/or elevation of utilities and roads, and anchoring of non-permanent structures. The FEMA guidelines are generally focused on the manner of construction in order to reduce the likelihood that a structure would be damaged by a 100 year storm.

FloodHazardAreasintheTown

Areas subject to flooding within the Town are primarily located along the shoreline of the Seneca River and along several smaller streams. The two largest floodplains along streams are both in the western portion of the Town, one around Beaver Lake and tributary streams and the other around Ox Creek. Floodplains along the Seneca River are generally narrow except for some deep inland intrusions in the Cold Springs Peninsula. Portions of these lands along the river are also subject to flowage easements obtained by the NYS Department of Transportation (NYSDOT) which administers the Seneca River as part of the NYS Barge Canal. Within these flowage areas, the State has acquired flowage rights so it may purposely flood these areas in order to regulate the level of the canal.

The Town maintains a dual system for controlling development within flood-prone areas: The Floodplain Zone District which reinforces the NYS Barge Canal flowage easement and the separate Flood Damage Prevention Code established pursuant to the National Flood Insurance Program. Together, these two systems address the range of flood-related issues confronting the Town and provide mechanisms for review of development projects.

Steep Slopes

The slope or contour of the land is a characteristic which, besides describing if a site is hilly or flat, is a means of assessing its suitability for certain uses. It has generally been found that a slope in excess of 15% poses significant problems for construction. A site with this degree of gradient will require extensive cutting and filling and, thereby, the loss of vegetative cover. This, in turn, results in increased soil erosion and stormwater run-off. On-site septic systems also require fairly level areas to function properly and may not be able to be situated on a steeply sloped site.

Slopes ranging from 8-15% present problems for the construction of roads, including excess run-off, erosion, and pavement slippage. Operationally, these roads can pose difficulties for maintenance, snow clearance, and the flow of traffic which can be affected by different acceleration and stopping patterns.

The problems associated with steep slopes are not insurmountable, but generally require extra expense and attention. The Town is the principal agency to oversee development on steep slopes. As such the Town requires that where structures or roads are placed on a site it must be done so as to minimize slope disturbance and that, when a slope is cut, the structure and slope are properly stabilized. The design of which shall be the responsibility of the developer's Professional Engineer who shall also oversee the construction thereof.

Lysander is not significantly affected by steep slopes. There are some steep slopes along the river, but these are mostly within the boundaries of the Barge Canal and, therefore, not developable. The other area affected is in the western portion of the Town which is primarily agricultural. For development in these areas, the Town should insure that any new lots will be large enough to provide a level area for structures and septic systems without extensive slope disturbance.

Soils

There are many characteristics of the soil and underlying subsurface which can affect the suitability of a site for development. Of principal community concern is the availability of groundwater and the ability to handle on-site septic disposal. Lack of one or both of these needs will generally require a Town response either in the provision of a service or restrictions upon development. Other factors, such as soil stability and drainage are resolvable through construction techniques or overlap with environmental characteristics discussed in other sections of this Plan.

Availability of groundwater and limitations of soils for septic absorption fields have been mapped (see Septic Suitability). Adequate supplies of groundwater are available in most of the Town from either unconsolidated deposits or from bedrock and groundwater supplies do not seem to pose a general constraint upon development. One problem area where the supply of groundwater may be variable from both sources is in the western part of the Town, north of the hamlet of Lysander.

Limitations of soils for septic drain field absorption are presented in three categories: slight, moderate, and severe. These terms are derived from the measurement of a variety of factors such as soil permeability, slope, and depth to bedrock and indicate the relative difficulty in designing and installing an adequate septic system.

In all instances, a properly functioning septic system is technically possible, but expensive modifications may have to be incorporated with difficult soil conditions; possible modifications include enlargement of the septic field to better disperse waste water or importation of more suitable soils onto a site. The map of soil limitations for septic tank absorption fields indicates that most of the Town has significant problems for on-site septic systems

A typical on-site septic system will receive sanitary waste from the house, remove and treat solids in the septic tank, and distribute remaining waste water to a tile filter field which regulates the dispersal of waste water into the ground. Once in the ground, the remaining waste is treated by natural bacteria and filtered by soil. Eventually the cleansed waste water will reach a subsurface water table. The design size, location, and construction of a filter field are dependent upon the anticipated septic flow rate, soil conditions, and other site characteristics. The filter field can be expected to minimally cover an area of 40 x 60 feet; it also needs to be separated from surrounding property lines, structures, surface water bodies, and water wells.

The Onondaga County Sanitary Code establishes the requirements for installation of a septic disposal system. The code also stipulates that the minimum area for a lot with on-site septic disposal is 40,000 sq. ft. This lot size provides the minimum area to accommodate the space for a typical structure and the filter field given the soil conditions found generally within the County.

Summary of Environmental Components

The physical characteristics of the Town have been categorized into a series of features, namely wetlands, floodplains, steep slopes, soil types, and groundwater characteristics. Some of these features are subject to separate regulatory controls at the Federal or State level while others are peripherally addressed during local permit reviews. The Town recognizes that:

1. All of these features represent complex environmental systems and are highly interrelated.

2. Each feature possesses a variety of attributes that present both constraints and opportunities for land development.

3. These attributes need to be balanced against development regulations as established by the Town's zoning ordinance.

4. The Town shares a responsibility with Federal, State and County governments in assuring that any development activity avoids unnecessary disruption of these natural systems and includes adequate mitigation measures when appropriate.

CulturalFeatures

Cultural features are manmade additions to the natural environment; certain of the features, because of their antiquity, uniqueness or ability to interpret past cultures, are deemed worth preserving. Two cultural features in Lysander need consideration when the Town reviews development proposals: archeological resources and historic sites and structures. This consideration should be a routine part of any SEQR significance determination and is specifically addressed on the Environmental Assessment Form.

Archeological Resources

Archeological resources include objects (artifacts) and sites below the ground which are significant to our cultural heritage. Archeologically sensitive areas may contain objects and sites which will help explain life in prehistoric times prior to the European occupation of the land. Archeological resources, if destroyed by development, cannot be replaced.

The primary area in Lysander with a higher than average probability of finding such resources is along the Seneca River from Cold Springs to Cross Lake; a further area is located around West Phoenix. Designation of such areas means that there is a higher probability of finding such resources, not that such artifacts will be discovered on every parcel within the designated areas. Likewise, it is possible that new sites or artifacts could be found outside these designated areas since not every prehistoric site is known. All suspected impacts on such sites, as well as any project involving major land disturbance within one of the designated areas, should be brought to the attention of the Office of the State Archeologist in Albany.

Historic Sites and Structures

There are 29 sites in Lysander (outside the Village) according to the Town of Lysander Environmental Inventory prepared by the Onondaga County environmental Management Council, (circa 1998), as historic. One of these sites, Whig Hill on Route 370 east of Plainville, is on the National Register of Historic Places. Thirteen historic sites or structures are located in or near the hamlet of Lysander, four in and around the hamlet of Plainville, and the remaining 11 are scattered throughout the Town.

The one site on the National Register enjoys several direct safeguards under the 1966 National Historic Preservation Act. Federal projects which affect National Register properties must be reviewed by a special governmental advisory council to determine if there will be any environmental impact. Owners of registered properties can receive tax incentives for rehabilitating these properties, but are subject to disincentives if historic structures are demolished. In addition, any action on or adjacent to a site on the National Register or a site proposed for inclusion in the Register is automatically classified Type I action under SEQR. Two questions on the Environmental Assessment Form address actions which would impact historic structures or sites.

Issues

- There are significant environmental features distributed throughout the Town, present in both suburban and rural areas. Adverse effects on features are not limited to just the suburban portions, but also occur with rural development practices. In both rural and suburban settings the Town needs to foster the proper use and protection of environmental features. The different development practices and needs of the two areas may preclude the use of identical treatments of features.

- Town policies and procedures include its zoning and subdivision controls and its administration of public facilities. These three mechanisms need to work in concert to insure the most appropriate use of a site or a larger area.

- Outside regulatory agencies play a significant role in the proper use and protection of specific features. Their role, however, is primarily to respond to the specifics of a development proposal or to development's proximity to an environmental feature. These agencies will protect specific environmental features from a definite proposal, but their mandate may not provide the means to address the incremental and cumulative effect of development within an area. The Town's perspective for proper use and protection of the physical environment is broader based and more encompassing. The Town needs to find ways to ensure that the policies and permit requirements of these outside agencies are coordinated with Town policies to provide effective environmental protection.

Policies

- The Town will designate land uses and intensities of development consistent with and non-disruptive to the natural environment.

- All development proposals must be designed to constructively interact with natural land forms in order to avoid the need for remedial construction of public facilities. Clustering of development to protect environmentally sensitive areas on a site is to be encouraged.

- Drainage systems, public water, and for lots smaller than 40,000 square feet connection of sewers to Publically Owned Treatment Facilities will be required in all subdivision developments within the County Sanitary District.

- If there are several significant environmental features within a site and developers are not able to provide comparable protection to all, the Town, in the course of project review, will establish priorities for the levels of protection to be afforded to each feature. Generally, highest priority will be given to those features which are subject to Federal or State control and/or which have the least capacity for mitigation or remedial action.

- Development within areas having significant environmental constraints will be the least intensive possible while permitting both use of the land and protection of the environment.

- Cultural resources will be protected from adverse impacts of development through application of SEQR, zoning reviews, and subdivision regulations.

Implementation

To address environmental issues and achieve its policies, the Town has three basic methods: State Environmental Quality Review (SEQR), coordination, and Town regulatory actions. Though presented separately for this discussion, they should be viewed as integral components of the Town's overall effort to promote the proper use and protection of environmental features.

SEQR

SEQR is probably the most commonly used tool that the Town will use to address the environmental implications of a project. The SEQR process is derived from the NYS Environmental Quality Review Act and its accompanying regulations are administered by NYSDEC. Each government agency, including the Town Board, Planning Board, and Zoning Board of Appeals is required to comply with the SEQR process prior to issuing a permit or approval, funding an action or directly completing an action. It includes such things as zoning and subdivision reviews, authorization for public facilities, stream bank disturbances, and mining. Simple permits such as for buildings, driveways, or plumbing systems are usually not subject to SEQR, since they involve minimal discretion.

SEQR is an investigatory and analytic tool used by the lead and involved agencies to identify and understand the environmental implications of a proposed activity. It is used to identify both the beneficial and adverse impacts, to choose measures to lessen adverse impacts, and to help frame a project decision within a set of choices about the environment. Upon completion of the SEQR process, the lead agency has a good understanding of the relative environmental costs and benefits of a project. It then uses that understanding to support and guide its decision on the non-environmental aspects. The NYSDEC web site gives guidance through a "Map of the SEQR Process" which can be found at:

http://www.dec.ny.gov/permits/32521.html

Town involvement with SEQR will occur either as a" lead agency", an "involved agency" or an "interested" agency. A lead agency is one that is issuing a permit or an approval, funding an action or directly undertaking an action. It is chosen (or it chooses) to see to it that the SEQR process is followed out correctly and it guides the SEQR process through from start to finish. By law, a lead agency is also an involved agency; it is the involved agency that is most knowledgeable and responsible for the proposed action. An involved agency is defined by SEQR as an agency which has some decision to make on a pending project; this usually entails a zoning or subdivision review. Involved agencies that aren't chosen as the lead agency work closely with the lead agency in the SEQR review process.

The Town may be an interested agency on a project when it does not have a decision to make on the project but wants to stay informed about the proposed action; examples of this may include wetlands permits, mining permits, or Agricultural District formation.

When the Town is the lead agency, it will be responsible for preparing or participating in the preparation of an environmental analysis. The Town should use the Natural Resource Inventory Maps prepared by the Onondaga County Environmental Management Council, soil survey data from the Soil Conservation Service and similar resources to assist in the development of facts and issues about the project. These sources are the result of research by various agencies into the characteristics of the physical environment. They provide an excellent point for the Town to begin its analysis of how a project will affect various environmental features.

The SEQR regulations provide a procedure which an agency will follow in its environmental review. One of the most important steps is the identification of mitigation measures to lessen or remove the identified adverse impacts. Once the SEQR process is complete, the Town proceeds with the evaluation of the project based upon other issues such as compatibility of land use, site design, effect on tax base, and economic impact.

SEQR organizes projects or actions into three basic types: a Type I Action is considered likely to have an identifiable impact, a Type II is not likely to have such impacts, and Unlisted Actions are projects neither on the Type I or Type II list. Type I actions always trigger a higher level of analysis; Type II actions are not subject to SEQR review. Unlisted Actions are those that are neither on the Type I or the Type II list. They make up the greatest number of actions reviewed in New York.

Depending upon the project, Unlisted Actions may trigger a full environmental impact statement or minimal review.
It is recommended the Town consider the following:

- For all projects: Insure that SEQR is incorporated into the review of the project, determine the type of action (Type I, II, or Unlisted), and outline the necessary analysis.

- For Unlisted actions: Be ready to identify potential impacts based upon project scale or proximity to a feature shown on the environmental inventory maps. Environmental analysis must be focused rather than being so broad that it unduly burdens the Town or the applicant.

TownasanInterestedAgency

The process described above is essentially the same for outside regulatory agencies but as an "interested" agency, the Town participates informally in the SEQR process. These are approvals and decisions that affect land and property within the Town but do not require formal Town approval.

The precise role or interest that the Town may have in outside agencies' permits will vary considerably, but the opportunity for the Town to make comments and suggestions exists in the SEQR process.

It is recommended the Town consider the following:

- The Town should contact NYSDEC, Onondaga County Department of Health, and the Army Corps of Engineers to insure that the Town is notified directly of all pertinent environmental reviews conducted by these agencies.

- When notified, the Town should routinely review and comment upon a project for the conformance to local requirements plus any environmental implications that it might identify.

- The Town should delegate responsibility for environmental reviews to the Planning Board or to a Conservation Advisory Commission (the Town does not currently have a CAC).

Coordination

Coordination is acting in concert with others to achieve a logical sequence of events or direction. For implementing the environmental component of the Town plan, coordination will most often be carried out by regular communication among Town agencies and by the Town with outside regulatory agencies. Maintaining and enhancing this form of coordination is especially important during the course of a project SEQR review. SEQR provides the means to identify and compare

the different permit requirements, to establish a workable schedule of agency reviews, to determine appropriate submission requirements, and to enable agencies to jointly assess the environmental implications of their respective approvals. The Town needs to reserve time during project reviews to accomplish coordination.

Town Regulatory Actions

The tools available to the Town to foster the proper use and protection of the physical environment are its zoning and subdivision powers and its ability to provide public facilities. Acting separately or in conjunction with each other, these tools create the town's system for protecting the physical environment.

PublicFacilities

Park Land, Roadways, water and sewer lines are capital facilities which themselves are incorporated into the physical environment and redefine the development potential of a site. By freeing a use from relying upon a groundwater supply or subsurface soil conditions, these facilities allow a site to be developed beyond its natural constraints. This physical enhancement increases the economic potential of land by enabling it to support more dense development. In other words; if these capital facilities can be made available through incentive zoning the lots per acre could increase. The increase in density should not however be used to consume environmentally sensitive areas or circumvent the constraints imposed by this CLUP, including the preservation of Farmland, open space, woodlands and the like.

Public facilities should be used to enhance the following environmental objectives:

- Public facilities must be provided to development sites within the County Sanitary District in a manner that avoids disturbances of any identified significant environmental features.

- Public facilities must be arranged so that associated lots and/or structures do not intrude upon or disturb any identified significant environmental feature.

- Public facilities must not be extended into an environmentally sensitive area unless it is necessary to alleviate an existing public health or safety concern.

- Recent trends in residential development seem to favor multiple mixed lot/home size communities as opposed to 40,000 SF lots in particular districts allowing developers to adjust to changes in the market especially over the slower rate of demand experienced the past 10 years. This gives rise to the concept of "Incentive Zoning Overlays" where appropriate; for

example The Cold Springs Peninsula is in need of Park Land, Incentive Zoning Overlays would allow increased density (smaller lots) in exchange for a developer's agreement to dedicate 30 acres of land for such use. Other examples include the developer installing sewers to the existing Wastewater Treatment Plant or to building "through streets" in lieu of cul-de-sacs to improve traffic conditions, especially on the Cold Springs Peninsula.

SubdivisionDesignGuidelines

1.Lot Size and Arrangement

- When public facilities are made available, lots can be sized and arranged so that the maximum number of lots is placed upon the portions of a site unaffected by any significant environmental feature. To achieve this, lots on the unaffected portions of a site should be the minimum permitted lot size to allow maximum placement of lots in these areas.

  - Maximizing the number of lots allows for the greatest potential to pay for the expense to provide and maintain the public facilities

- When public facilities are not available, lots should be sized and arranged so that the minimum number of lots are in proximity to a sensitive feature such as wetlands and flood hazard areas. Lots should be enlarged where possible to lessen the likelihood of any intrusions into a significant environmental feature.

2. Management of a Sensitive Feature

    - When public facilities are available, the environmentally sensitive portions of a site may be included as part of the tract's open space dedication to be administered by either the Town, a private homeowners association, or some other method. The Town should avoid accepting such environmentally sensitive areas without a clear agreement concerning ownership and maintenance of such areas; such areas may not be suitable as intensive recreation sites.

- When public facilities are not available, environmentally sensitive areas will generally have to be protected by the individual lot owners. A sensitive area can be divided into abutting lots and not established as its own lot which would be subject to further subdivision requests of potential abandonment. Of course, any environmentally sensitive feature can still be purchased by an environmental group for preservation purposes.

3. Techniques

    - NYS Town Law §278 provides for the modification of zoning requirements by a planning board during a subdivision review. This process is explicitly intended to assist in the protection of the environment and can be used to reduce required lot geometrics or yard setbacks to avoid or lessen disturbance of a significant feature. Overall development density is not changed for a development site, but redistributed within the site. This process is especially useful when public facilities are available and increases the amount of land unaffected by structures and, therefore, potentially useful as open space. Care should be taken in the base plan to avoid counting acreage that could not be developed because of terrain, wetlands, protected farmland, woodlands, park land and the like.

    - Lot width/depth ratio is a common requirement of local subdivision regulations and is specified at 1:4 by the Town. Modification of this maximum ratio can be considered when it serves to protect a sensitive feature from development intrusion, further subdivision activities, or abandonment. Such modifications will be more useful in areas not served by public facilities.

4. Zoning

- The zoning classification of environmentally sensitive land should promote development that avoids intrusions and maximizes the separation between developed and environmentally sensitive areas.

- The zoning on land served by both public water and sewers should be at densities that promotes concentration of development within portions of site unaffected by a sensitive feature. The development densities must also be at levels that promote the economic provision of services.

- Lots with individual groundwater sources and on-site septic systems have a greater reliance upon the proper functioning of natural systems. Hence, the integrity of sensitive features needs to be protected with larger lots to disperse human demands upon the systems.

Public Facilities

SewerandWaterSystems

The provision of water and sanitary sewer systems is a major factor in the development of a community. Water and sewer systems are collection and distribution networks which relieve an individual site from providing on-site groundwater or septic waste disposal areas. These networks are typically publicly owned and managed and, hence, the name "public facilities." They may, however, be privately operated by either a corporation or a collection of individual property owners. Regardless of ownership, the essential character of the systems is the same and the availability of such systems is a major consideration in establishing Town land use policies.

Public water and sewer services provide a means of incorporating development activity into the characteristics of the physical environment. Provision of water from a community source will greatly reduce the individual site's relationship to groundwater resources. Similarly, provision of sanitary sewers replaces the need for a site's soils to absorb and cleanse septic waste and, thereby, reduces the need for a site to possess minimal dimensional characteristics. These public facilities provide the means to enhance the protection of environmentally sensitive features. Provision of sanitary sewers eliminates the need for septic tank fields which can fail and damage wetlands, surface waters, or groundwater. The provision of facilities, therefore, becomes an important way of modifying and potentially reducing harmful environmental effects.

Public water and sewers can allow greater residential density, but this density needs to be controlled. Increased traffic, drainage problems, and loss of open space are commonly noted problems which accompany poorly planned dense development. Maximum effectiveness of water and sewer service as a tool for directing land development is obtained by establishing methods to insure that these services are balanced between the capacities of the physical environment and the capabilities of other existing facilities. A principal method of regulating this balance is the interjection of local zoning and subdivision controls.

Sanitary Systems in the Town

The provision and availability of sanitary services is based upon a multi-tiered system. There are two forms of districts and two types of sewer facilities. The County's Consolidated Sanitary District is established by the County Legislature and, in Lysander, constitutes the potential service area of the Baldwinsville-Seneca Knolls Treatment Plant. Individual sewer districts are established by the Town Board to provide sewer service to each lot. The County Department of Water Environment Protection (WEP) owns and maintains the treatment plant and the major sanitary trunk lines leading to the plant.
Town owned facilities include pumping stations and street and minor trunk lines connected to the County trunk lines; the County maintains the pump stations as part of its operations.

CountyFacilities

The County's role in the system with its Consolidated Sanitary District, the treatment plant, and trunk sewers is to set a basic framework within which the Town sewer districts and local sewer network function. The Sanitary District boundary represents the likely extent of the service area for the Baldwinsville-Seneca Knolls Wastewater Treatment Palnt. The treatment plant is located south of Route 370 on Barbara Lane and discharges treated wastewater into the Seneca River. With recent (2014) Additional loads from new and expanded industrial facilities the plant will soon approach its design capacity. Additionally; the plant may be required to upgrade treatment capacity to meet more stringent discharge regulations expected to be put in place in response to the recent (2010) degradation of Seneca River water quality.

WEP is contemplating removing some of the Town of Geddes load from the plant redirecting it to the WEP Metro Plant. If this happens additional capacity would become available to the Town. Given these facts and uncertainties it's not prudent to plan on expanded use of the Baldwinsville-Seneca Knolls Plant for at least the next year or two.

Two trunk lines lead into the plant: one serving the Village of Baldwinsville and another serving the Radisson area.

Some areas, such as the Village and portions of Radisson, existed prior to trunk line construction while other areas, such as Clinton Heights, are fairly recent. The net effect is that undeveloped land immediately adjacent to and capable of direct trunk line connections is limited until treatment capacity can accommodate it. Development activity on non- adjacent sites will need to access the trunk sewer either indirectly through the nearby Town network or directly through construction of a new connection. The lack of direct access to a trunk sewer does not preclude development, but introduces concern for the scale of development, and shifts attention to the capacity of the intervening Town sewer network.

An alternative to or perhaps in addition to expansion of the Baldwinsville-Seneca Knolls Plant; WEP's Wetzel Road Wastewater Treatment Facility might be able to accept future Cold Springs sanitary waste via a new trunk sewer and syphon extended under the Seneca River. Such an extension would also need to be coordinated with the Town of Clay to assure Clay's future needs are also accommodated. Given the uncertainty of this option and the time it would take to implement it's not prudent to plan it use at this time.

TownFacilities

Town facilities comprise the smaller transmission lines and street laterals receiving sanitary wastes from properties within a sewer district. Wastewater is collected in the Town system and transported to the County trunk sewers which deliver it to the treatment plant. Town sewer districts are the financial and administrative mechanisms through which the Town oversees the operation of its sewer facilities. Most town sewer districts are established in response to a development proposal and the facilities are commonly installed by the developer.

As noted above, most Town sewer districts within Lysander are concentrated along the County trunk sewers since the availability of sanitary connections among other factors has made these sites attractive for development. Five sewer districts do not have direct connections to the trunk sewers and may be indicative of future development for some areas of the Town. Two of these districts are Fairways North and the Indian Springs sewer districts; both are near to the trunk and adjacent to the existing service areas but their respective sanitary waste is transported to the County trunk line through existing sewer lines in adjacent developments.

Five other existing sewer districts in the Town are not in proximity to existing development and, in fact, do not connect directly or indirectly to County trunk sewers; these are, the Melia Park Sewer District on the south side of Route 370 in the eastern peninsula, the Springbrook Sewer District located between Doyle and River Roads, White Tail Woods, Brickwalk and The Landings. All have dry sewers to permit eventual connection to trunk sewers; in the interim, both Springbrook and Melia Park rely on individual septic systems for each lot.

These sewer districts were formed because of project size, site conditions, Town zoning, and the Onondaga County Health Department policy concerning the County Sanitary District. The Health Department's Division of Environmental Health independently reviews subdivision proposals, examining the provisions for septic waste disposal for each lot. The Health Department's policy considers the County Sanitary District as the areas to be eventually serviced with sewers. Therefore, the Department's policy is to require dry sewers or a community septic system for all developments within (and occasionally adjacent to) the Sanitary District boundary that are unable to immediately connect with operating sewers. As a result of this policy, the Whispering Oaks subdivision used a community septic system for wastewater disposal which failed. It has since connected to an extension of the village trunk sewer.

Sewer Issues

As stated above limited Wastewater treatment capacity has become a concern for residential development. The Town must continue to work with WEP to help create opportunities to generate sustainable growth while at the same time improving the Seneca River Water Quality. Large developments and industrial projects should be referred to and reviewed by WEP in the very early stages.

Proximity to existing sewer facilities is of major concern to projects which rely upon an indirect connection through the Town sewer network and for projects too distant for any immediate connection. For projects immediately adjacent to existing facilities, the Town will need to insure that the intervening Town network has the capacity to pass-through the additional wastewater flow. The Town should minimize, to the extent possible, the need for pumping stations which add operational costs to the sewer district and can be a major limitation upon future expansion.

Projects within the County Sanitary District but distant from the existing facilities are to be discouraged and will be subject to the policy requiring dry sewers. Projects closer to the existing facilities will be encouraged through Incentive Zoning to provide the necessary connections to the nearby facilities while at the same time providing for the ultimate build-out of projects more removed from these facilities.

Trunk sewers are usually County facilities, but the loss of Federal funding and other budgetary constraints makes trunk expansion by the County unlikely. The Town or a developer can install their own trunk sewers, but the costs would have to be borne by the area served and may prove to be prohibitive. In the case of the Cold Springs Peninsula the "area served" should be considered as all future development and those areas which will benefit by having the existing Dry Sewers connected. Town, County and Developers' decisions concerning new trunk sewers will have a major impact on the location and extent of residential growth in the Town. In light of the Seneca River water quality degradation it is possible that the Health Department or NY DEC may soon restrict the use of septic systems for all new development within to County Consolidated Sewer District. Even before this becomes the case the CLUP uses "Incentive Zoning" to exchange development rights for needed trunk/siphon to Wetzel Road or to Baldwinsville-Seneca Knolls even to the point of working with WEP to expand treatment capacity.

- One way to expand capacity is to reduce inflow beginning with an "Infiltration Inflow Analysis and corrective measures" of aging facilities.
- Insist on periodic inspection and proper maintenance of grease traps and other industrial/commercial process equipment to reduce biological load
- Search out and remove illegal sump pump, basement drains and stormwater connections
- Reduce stormwater run-off and infiltration.

The Town is prepared to work with WEP to improve the likelihood of new Industrial and Residential development in the areas served by the Baldwinsville Seneca Knolls and Wetzel Road Wastewater Treatment Facilities.

Stormwater Management

As an MS-4 community the Town insists that the current NY State Department of Environmental Conservation (NYSDEC) Stormwater Design Manual is complied with for all stormwater management issues beginning with sketch plan to ultimate maintenance of facilities. This includes maintenance of existing facilities.

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Water Service in the Town

The provision of water service in the Town is similar to sewer service in that there is a multi-tiered system. Major water transmission lines are provided by Onondaga County through the Metropolitan Water Board (MWB). Individual property service is provided by Town water districts which are operated under lease by the Onondaga County Water Authority (OCWA), an independent authority chartered by New York State. Some Town residents also receive water from the Village of Baldwinsville which owns and operates its own wells.

The water supply map shows the distribution of major water lines within the Town west of the Village of Baldwinsville is the line from the Village well (Doan Field) to the Village boundary. The line roughly follows Route 370 and adjacent developments have been allowed access to the water. Some service is provided through a Town water district while other service is retailed directly from the Village. The Village also supplies water to the Clinton Heights area through a Town district.

Public water in the balance of the serviced area is operated by OCWA through Town or OCWA water districts. OCWA is not a County agency, but is a public authority with the responsibility of providing water to individual properties. Typically, OCWA oversees a water system under a lease agreement with the Town or water district. In addition to its role of system maintenance, OCWA will, at times, act as a contractor and install water lines in a development. OCWA generally is responding to initiatives on the part of the Town or a developer when water is extended into new areas.

The MWB is the wholesaler or supplier of water from which a Town district through OCWA acquires water for retail consumption. Water is obtained from Lake Ontario and transported to the MWB reservoirs in the Town of Van Buren. Secondary distribution lines extend from West Phoenix to Cold Springs and north of the Village of Baldwinsville (see map 5).

Water service is more extensive than sewer service, but it generally remains within the boundaries of the County Sanitary District. The only area receiving water outside the County Sanitary District is West Phoenix. Certain sections along Lamson Road will likely be served in the near future.

The provision of public water, together with sewer service, usually occurs in conjunction with a subdivision development. Public water without public sewers often occurs in existing residential areas whereas, in regard to new subdivisions, only two currently are without wet sewers (Melia Park and Springbrook). Typically, a developer will initiate a request to form a water district for a new tract and the costs of installation will be included in the lot price. Residents requesting service for an existing area will have a more noticeable burden for the installation of public water. Both new and old water districts will be similarly responsible for maintenance, general district operation, and individual user changes.

Water Supply Issues

- A public water system relieves a site of the need to supply its occupants with a reliable source of groundwater. Water lines can be provided to most developed areas in the eastern half of the Town. This accessibility has helped relieve health concerns in the West Phoenix area and most recently in the Hayes Road area. Though the immediate concern for potable water has been resolved in these two areas, there is still concern about continuing pollution of the groundwater since these areas do not have public sewers.

  A lot on public water and not on sewers still relies upon the ability of the soil and subsoils to absorb septic waste on-site. There is a tendency for people on public water to use more water than those still on wells. The higher usage by people with public water can overload a septic system. Failure of a septic system can result in septic wastes reaching the soil surface or polluting the groundwater supply used by others. Both present health hazards that can be avoided by insuring that a site with only public water has sufficient area and/or soil conditions to process its septic waste.

- A water district is the primary means the Town has to administer the provision of this urban type of service to an area. Reasons for establishing a water district are varied and the impacts of such a district can extend beyond those initially anticipated. In order to ensure that subsequent impacts are addressed, a water district should be considered in concert with other Town control mechanisms, i.e., zoning, subdivision regulations, and special district creation.

- With the exception of the West Phoenix/River Road area, all water districts are within the County Sanitary District boundary. This boundary identifies the portions of the Town area likely to be intensely developed and within which sewer service may be provided. Proposals by developers to extend water districts beyond the Sanitary District boundary must be carefully scrutinized for all possible effects, including impacts on groundwater, highways, agriculture, and overall Town development patterns.

Issues Related to Both Water and Sewer

Both public water and sewers create opportunities to protect sensitive environmental features such as ground and surface water, wetlands, steep slopes, or flood plain. The smaller lot sizes that such services justify provide a means to cluster development on a site to avoid sensitive areas while still permitting relatively dense development.

- Public facilities are typically introduced into an area to respond to existing environmental problems or proposed development projects. A public facility, once installed, can also function as an inducement mechanism encouraging certain patterns of development within proximity to the facility. In this context, a public facility does not necessarily increase total development in the Town, but will modify the location and density within various portions of the Town. Thus, the marketability of certain lots will be affected by proximity and access to public facilities; other factors affecting marketability include total Town residential demand, total land area available, size and location of parcels, highway access and specific site characteristics.

- The Town, in response to environmental or health concerns, may not be able to avoid providing public water and/or sewer service. In doing so, "Incentive Zoning" exchanging such for development rights will help. The town must also continuously evaluate the secondary effects such a project may induce upon surrounding properties. Upon identifying the possible secondary effects, the Town may choose to try to increase or decrease the development inducement by modifying system design, capacity, and/or location.

Policies

The Onondaga County Consolidated Sanitary District boundary defines the areas of the Town best suited for moderate and intensive residential development. This area contains sufficient undeveloped land and improved lots to accommodate the Town's housing needs during the life of the plan assuming wastewater treatment capacity issues will be resolved as housing needs grow. The Town will not initiate extension of the sanitary sewers beyond the limits of the Sanitary District boundary itself except in response to existing environmental and/or public health concerns. If a developer wishes to extend sanitary sewers beyond the boundaries of the Consolidated Sanitary District, this should only be permitted where approved by WEP and must be in areas already served by public water and where the developer assumes primary financial responsibilities for the sewer extension.

The Town will not seek further extensions of water service or the formation of new water districts outside of the Consolidated Sanitary District except in response to existing environmental and/or public health concern.

- The Town shall encourage and require, when practical, the design of public facilities to provide for future interconnections between adjoining projects in order to promote a logical expansion of facilities within the Consolidated Sanitary District.

- The provision for both public sewer and water service should be incorporated in every significant development project proposed within the Consolidated Sanitary District.

- The Town must not allow the development of community water/sewer systems since the Town does not have the capability to operate and maintain these types of systems
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- Availability of only public water relieves some concerns for public health, but not for other aspects of environmental quality. Therefore, developments with public water and individual lot on-site septic systems shall only be allowed on lots with a minimum size of one acre, two acres in Agricultural District.

- Development proposals with public water and operating public sewers may be developed at densities greater than one unit per acre subject to adequate highway access and adequate mitigation of site or environmental constraints and conformance with the goals and policies of this CLUP.

- The Town shall encourage and require, where practical, the design and layout of public water and sewer services to facilitate protection of sensitive environmental features such as the Seneca River, wetlands and the like. Water and sewer lines shall avoid, to the extent possible, intrusion and disturbance of these areas.

- Where shown in specific AR-40 districts, “Incentive Zoning” provisions will be applied to create amenities such as park land and to preserve open space and farm land as well as wastewater conveyance subject to fiscal impact analysis and coordination and concurrence with regional infrastructure providers.

- The Town should work closely with WEP, the Village of Baldwinsville and the Town of Van Buren to reduce Infiltration Inflow to the sanitary sewer system and to seek out and force the removal of illegal connections. Such activities are frequently funded by various environmental agencies. The Town should seek such funding.

Implementation

Zoning Ordinance

The AR-40 zoning district exists for land within the Consolidated Sanitary District that is not currently served by sanitary sewers. Active farmland already in the AR-40 can be preserved through the use of "Incentive Zoning" overlays exchanging conservation easements for the right to increase development density, for example; a 500 acre parcel is divided into a 250 acre conservation easement to be farmed while 250 acres are used to build A-20, A-12.5 properties with appropriate buffers between the two such as hedge rows, natural streams or tree lined collector roadways "Incentive Zoning" overlays have also been applied for large vacant parcels within the Consolidated Sanitary District, not currently served by sanitary sewers where they can be reclassified as the new residential district, as sewers are made available to a site or are provided by a developer.

Subdivision Review

The Town Planning Board must take an active role in working with the developer to best assure that fiscal analysis is proper for the scope of the entire development not just for capital expense but must include life cycle analysis as well. This analysis must ensure that the Town is making sound investments that it and its residents can sustain long term. That the development is consistent with the character of the community and takes advantage of the natural environment surrounding and within the subdivision. It is expected that for major subdivisions (5 or more lots) a representative of the Planning Board will participate in a site walk-through with the developer's design professional followed by a design discussion session for the purpose of firmly establishing the basis for going forward.

The life cycle cost analysis should be used by the Town as the basis to build a reserve for the ongoing maintenance and ultimate replacement cost of the infrastructure.

Major subdivisions within the R-20, R-12.5, and R-10 districts must include provision for public water and sewer. When connecting to existing sewers, the subdivision plan shall indicate means to accept and transport sanitary wastewater from succeeding developments.

Trunk Sewer Expansion

Installation of new or extension of existing trunk sewers has historically been a County responsibility. Due to a variety of factors, the assumption of that responsibility by the County is currently being debated and may not continue. Regardless of how the County resolves this debate, the Town has its own options:

- The Town can discourage any expansion of the trunk sewer network and regulate development through the zoning and subdivision processes or

- Use Incentive Zoning to facilitate the following:

    1. The Town can construct, on its own or in concert with developers, new trunk sewers and/or pumping stations and force mains to induce development within selected portions of the Town.

    2. The Town can permit developers to construct new trunk sewers and/or pumping stations and force mains at their own expense.

Commercial and Industrial Land Use

CurrentPatternsofCommercialandIndustrialDevelopment

The need for significant retail and service development in Lysander is limited by the Town's proximity to the Village of Baldwinsville, to the Town of Clay, and to areas south of the Town in Salina and Liverpool where substantial retail and service facilities already exist. Therefore, new retail and service uses are expected to be on a lesser scale designed to serve the immediate needs of adjacent residents.

The Town's retail and service uses are primarily intended to serve the local residents. Several farm equipment stores provide service to local farmers, farm stands provide produce to Lysander residents, and auto service outlets, restaurants, neighborhood stores, and service outlets are all locally oriented.

Office uses in the Town can be expected to grow mainly in Radisson and the village of Baldwinsville.

Heavy industrial uses are expected to continue to grow in the Radisson Business Park with additional businesses in several scattered locations. The Town's largest industry is the Anheuser-Busch brewery followed by the newly expanded (2014) McLane Northeast Food distribution facility, The Agrana Fruit Processing Plant which went into operation May 2014 and the newly expanded Indian Springs Manufacturing facility just west of the village

The Town is experiencing very positive Industrial growth as mentioned above. This growth is not accidental it is occurring for many reasons; chief among them is the presence of a sound labor force, attractive residential properties (great places to raise a family), exceptional education facilities/staff, access to transportation and dependable utilities. The Town has also demonstrated a willingness to joint venture with industry to develop suitable waste treatment / pretreatment facilities to entice development in the view of the current Public WWTF limitations. Such a facility may also produce energy

Issues

The current Zoning for Commercial and Industrial land use appears to be more than adequate with four Districts dedicated to various degrees of Retail/Service use and one district to Industrial use.

Policies

- Retail and service businesses should be concentrated in hamlets, adjacent to the Village of Baldwinsville or in specially designated retail areas along major arterials. Scattered strip retail stores must be discouraged as a general policy.

- Major office development should occur in office park settings or in combination with other significant retail/service developments.

- Heavy commercial and industrial uses should be concentrated in the Radisson Industrial Park or in selected industrial areas designated on the Zoning map. These industrial areas should be large enough to accommodate major buildings, should be buffered from any surrounding residential areas, should have adequate transportation access to major arterials, should be capable of being served by public water and sewers, and should not have any significant environmental impediments.

Implementation

The following is a detailed commentary on existing and proposed commercial and industrial development in the Town;

1. The Town should continue its strong relationships, with the Onondaga County Planning Agency, the County's Office of Economic Development and the Onondaga County Industrial Development Agency (OCIDA). As an integral part of the development of this Comprehensive Plan we have added all the available Commercial / Industrial Parcels to the County's GIS Database. As a result potential prospects are made aware of all the benefits the Town has to offer. The Town must keep this database up to date and review at least quarterly.

2. There are currently (August 2014) more than 600 undeveloped acres zoned for industrial use in the Town including more than 250 acres in Radisson. The parcels range in size from 2 acres to 150 acres, many with access to rail service a major drawback for some parcels is the existence of both State and federal wetlands on portions of the site. See the Wetland Overlay on Industrial Parcels to identify readily available land.

There are a number of areas other than Radisson with access to public water and sewers as well as a location on a collector or arterial highway. One example; the area is north of Hencle Boulevard between Smokey Hollow Road and Route 48. The site is within the County's Consolidated Sanitary District. The site is vacant and has a railroad along its northeastern boundary, a few residences, and an American Legion
Post on the eastern side, vacant land to the south, and vacant land and a few scattered residences to

the west and north. Either collector or arterial highways are on three sides of the site; access to Hencle Boulevard is restricted by deed to a 60 foot curb cut along one parcel, with the exact access

point to be determined by the County's Department of Transportation. Other access points would be needed from either Smokey Hollow Road through existing occupied parcels or from Route 48; along Route 48 access is restricted immediately north of the intersection with Hencle boulevard and an access point would have to include some land north of the County's Consolidated Sanitary District boundary lines.

The site has small areas in State wetlands along with several additional scattered areas of national wetlands; there is a large power line right-of-way through the site. Even after eliminating areas affected by these problems, there is significant developable land available from the approximately 210 vacant acres. The Smokey Hollow Water Supply District is located in the southeast corner of the site with the Route 48 Water Supply District located directly south of Hencle Boulevard

3 The effect of a large amount of commercially zoned area along Route 48 north of the terminus of 690 (combined with other industrially zoned areas) is to create the potential for a number of commercial enterprises with individual access points onto the highway. Route 48 is already a main route connecting Onondaga and Oswego Counties, carries significant truck and car traffic (counts as high as 8400 AADT) Town planning for commercial uses along Route 48 must encourage site designs which limit the number of access points, combines access points where feasible, and assures that access points are properly located. Multiple strip commercial uses with vaguely defined curb cuts must be avoided. Any further speculative re-zoning to commercial districts is also to be avoided; sufficient land is now zoned to handle any major commercial uses that might wish to locate along Route 48. Special attention in terms of future commercial development needs to be given for sites adjacent to the Wildlife Management Area; certain commercial uses may detract from the open space character of the Management Area. Buffer strips and other design alterations may be necessary for commercial sites adjacent to the Wildlife Management Area.

4 The Town should entertain a zone change(s) to an appropriate commercial district when residential development in a particular area attains a sufficient level to support retail services. Through the zone change process, the Town can specify the exact location, extent, and sequence of commercial development within this area. Properties not needed for commercial use should be zoned and developed appropriately.

5 Route 370 west of the Village is relatively undeveloped in terms of commercial uses; primarily because it is zoned AR-40 and should continue to be. The hamlet of Plainville should retain its commercial zoning.

6. In the remainder of the Town, there are small commercially zoned areas around the hamlets of Lysander, Little Utica, and Jack's Reef. These commercial areas should be made to conform to parcel boundaries and to commercially usable properties. Any other spot commercial development along highways in the rural portions of the Town should be discouraged.

7. The Town's zoning ordinance contains four commercial zoning districts as follows:

- Neighborhood Residential-Business
- Retail Services
- General Business and
- General Commercial

Each serving the particular needs of the Geographic and Demographic area depicted on the Zoning Map.

8. For large scale residential developments, particularly the type that may eventually occur in the eastern peninsula area of the Town, some form of "Incentive Zoning" similar to that described in the Residential Land Use Section or a PUD procedure should be utilized so that commercial sites as well as Parks are predetermined and scheduled to be built as residential development warrants. Such a procedure assures that all elements necessary for a well-rounded community will be planned in advance and assures that commercial uses not be permitted to develop in a manner incompatible with residential or other noncommercial land uses. In addition it must consider and allocate appropriate Open Land to preserve view sheds and Agricultural land

Residential Land Use

The 2007 Revision of the Land Use Plan was intended to incorporated the Transfer of Development Rights Program (TDR Program) pursuant to Town Law Section 261-a, which was developed by the Town at significant expense, over some years prior to its adoption on 10-23-2008 as Local Law No. 8-208 (Town Code, Chapter 139, Article XXVII). The TDR Program comprises a Public Option (dependent on a grant from New York State which was never approved and dispersed) by which the Town would purchase development rights and resell them to interested residential land developers, and a Private Option by which land owners and developers were free to negotiate the sale and purchase of development rights. The Town's stated goal of the TDR Program was maintaining an economically viable agricultural presence and rural character in those areas zoned AR-40, especially in the Cold Springs Peninsula. The objectives of the TDR Program were to provide an effective growth management tool for the Town to:

- Preserve farmland;
- Help distribute higher residential density development away from active farmland;
- Mitigate traffic impacts associated with increased demand for residential development; and
- Direct development to areas that can be more effectively serviced by local infrastructure.

The TDR Program was intended to accomplish those objectives by restricting residential development in areas that the Town wanted to preserve (Sending Areas), and directing that development to areas the Town had planned for growth (Receiving Areas). Sending Areas would be encumbered with agricultural conservation easements in exchange for the right to increase density in Receiving Areas from AR-40 to R-20. The increase in density would take place through the transfer of development rights from one Area to the other.

In the seven years since the Town adopted the TDR Program the Public Option has never been funded**,** and there has been no evidence of any action by any developer to use the Public or Private Option of the TDR Program.

Repeal of the TDR Program

The Town has concluded that the objective sought by the TDR Program may be achieved more efficiently and more equitably by repealing Local Law No. 8-208 and Chapter 139, Article XXVII And Article XXVIII of the Town Code, and adopting land use zoning for the Town which will better meet the Town's current land development objectives.

Background; In the early 1990's when a Land Use Plan was first prepared, demand for single-family housing development, with the exceptions discussed below, was limited in the agricultural portions of the Town. The level of demand outside of the Radisson PUD, and residential projects in the Peninsula off NY Route 370, in the vicinity of the Baldwinsville Seneca Knolls Treatment Plant, did not justify the developer's expense to extend necessary municipal facilities to new housing developments. As such, lot size requirements for development outside of the existing sewer system network were established and codified to meet the requirements for on-site sewage disposal systems.

In response to increased demand for residential housing, the Town adopted this Plan as a guide to implement local land use policy. In 1991, local officials had determined that the most efficient and cost effective growth management tool for agricultural areas of the Town, particularly the newly established AR-40 Zoning District, was to utilize available public water and public sewer serviced by the Seneca Knolls Plant, to dictate the locations and evolution of housing density and development.

This Plan has proven to be effective in that public water and sewers were expanded by developers in subdivisions along Route 370, including Clinton Heights, Abbott's Landing, Holly Hill and Collington Pointe, and in the Timber Banks PUD. In these subdivisions served by public sewers, the AR-40 zoning was changed to R-12.5 at the request of the developer. The R-12.5 zoning maximizes the number of houses in the subdivisions and minimizes the amount of farmland utilized in the Peninsula, thereby maintaining the Town's reputation as a desirable place to live and work.

Residential Development Projections

The potential loss of agriculture and open space, particularly in the AR-40 Zoning District is the direct result of development pressure for single-family housing. Based upon a GIS evaluation of real property tax parcels and Census records, there are currently 8850+/- total residential units in the Town. Roughly 50% of the Town population is within prime wage earning age and the demand for single-family residences is expected to outpace all other land use for the next five to ten years, the possible exception of Industrial development.

Growth projections originally outlined in the 2002 Town of Lysander Parks and Recreation Master Plan of 6,916 total units in the AR-40, taking into account zone change requests and approvals to allow R-20 density, were off the mark due to a significant down turn in the economy which began in late 2008 and which continues to persist in early 2014, although showing signs of improvements. Now that Radisson has been mostly built-out, development pressures appear to be concentrated in the Peninsula, especially in the new PUD, TIMBER BANKS, and along the NY Route 370 corridor southeasterly from the Village of Baldwinsville, However, due to the lack of proximity of the Baldwinsville Seneca Knolls or the Wetzel Road Sewer Treatment Plant from most of the developable land in the Peninsula and the expense to developers of extending public sewers any significant distance from their own land, and new capacity pressures from industry, the number of residential subdivisions in the Peninsula that will be served by public sewers may be limited for the near future, and future residential development in the Peninsula will be a mixture of subdivisions served by public sewers and subdivisions served by septic systems. Clearly, subdivisions served by septic systems will require large lots and AR-40 zoning districts appear to be marginally suited for such purpose. On the other hand, Through the IZ process encouraging developers to work with the community to extend the needed infrastructure subdivisions served by public sewers should serve to conserve available agricultural land by concentrating houses on smaller, R-20 and R-12.5 lots through incentive zoning overlays, which will use much less of the agricultural land used in an AR-40 zoning district for the same number of houses.

BuildingPermits

The following table outlines a 10-year trend analysis concerning building permits issued in the Town of Lysander.

Housing Units Authorized by building Permits			
Year	Total	1 Family	Multi family
2004	106	106	0
2005	115	115	0
2006	200	74	126
2007	75	75	0
2008	118	72	46
2009	81	59	22
2010	121	69	52
2011	105	25	80
2012	47	47	0
2013	103	60	43
Total	1071	702	369
10 year avg./year.	107.1	70.2	36.9
Most Recent 5 years Avg.	91.4	52	39.4

Note: The average number of building permits issued annually over the most recent 10 and 5 year periods range from 107 to 91 number of housing units respectively, more than a third of these were multi-family units. Given these statistics coupled with the recent ground breaking in the town of Van Buran for more than 400 apartment units it is expected that the intensity of apartment development is not likely to continue. Therefore it is reasonable to predict something closer to our ten average of single family homes (70 homes) are likely to be built each of the next 10 years.

Current Subdivisions approved or under review

The table below outlines all residential subdivision proposals for the AR-40 Zoning District approved or under review by the Town as of year-end 2013

Name of Subdivision	No. Units	Comments
Abbott Realty	26	May be combined/Collington Pt.
Anita Manor	24	
Brickwalk	15	
Camex Realty	222	
Emerick Heights	36	
Erminger Property	20	May be combined/Speach prop.
Laurel Ridge	90	Estimated upon full build out
Lombardy Property	45	May be combined/Timber Banks
Melia Park	15	Section 3
Melvin Farms	425	Estimated upon full build out
Pompo Wood	30	Estimated upon full build out
Timber Banks	550	Pooler
Sen Patch	51	
Total development lots proposed in AR-40 district	1,576	

Through an evaluation of this current level of demand, an annual development rate of 70 residential lots per year can be conservatively assumed for the short term. The estimate is based upon the average number of building permits issued for single-family units since 2004. This is realistic due to the number of subdivisions currently before the Planning Board and slated for construction beginning in 2014.

Issues

- What areas of the Town are best suited for continued residential subdivision growth?
- At what density should residential subdivision development occur?
- What areas should be developed for residential subdivisions and in what time frame; how does this relate to the provision of necessary services?
- How can the Town plan for residential growth that does not compromise the functional aspects of the transportation system?

- What type of residential density and development patterns should be encouraged in areas outside of the County's Consolidated Sanitary District boundary?

- Should the Town continue to allow zone changes to increase the underlying density of the AR-40 and (A) zoning districts?

- What changes to the zoning ordinance or subdivision regulations are needed to achieve the desired residential development patterns?

- How can residential development be made compatible with other Town priorities such as protecting environmentally sensitive areas and preserving the highway functionality of Town arterials and collectors?

- How can residential development be managed in a manner that curbs urban sprawl and the impacts of land consumption associated with such development trends, particularly in the AR-40 Zoning District on the Cold Springs Peninsula?

- How can the Town plan for residential growth in a way that mitigates the long-term tax burden associated with operation and maintenance (O&M) of infrastructure?

Policies

The following policies have been established in response to increasing concern regarding the perceived loss of local agricultural operations and potential impacts that new residential development may have on the transportation and public infrastructure systems, and other municipal services (i.e., schools, fire departments, etc.).

- Higher residential diversities will be encouraged in new subdivisions through higher density zoning such as R-20 and R-12.5 in areas served by public sewers, or through a specially created non-traditional residential district, or PUD procedures. An IZ Overlay as previously discussed has been developed for certain AR-40 districts to allow 278 cluster development procedure.

- For areas outside the County's Consolidated Sanitary Sewer District, minimum residential lot size will be one +/- acre per single-family residential unit; lot sizes larger than one acre may be justified to achieve goals beyond environmental protection.

- Flexibility in design of subdivisions will be encouraged to provide a variety of housing opportunities, to permit protection of environmentally sensitive or unique natural areas, to permit creative use of natural topography and landforms, and to preserve mature trees wherever possible.

- Encourage more concentrated residential development in the AR-40 suitable for residential development and through IZ make logical infrastructure extensions happen.

- Housing growth must be encouraged to proceed at a pace and in locations consistent with the availability of public facilities.

- Residential growth adjacent to the Seneca River system must be of a scale and design to preserve the aesthetic quality of the river and to protect the river from environmental degradation.

ImplementationProcedures

Agricultural (A) District

This district was established for areas outside the existing County Consolidated Sanitary Sewer District where neither public water nor sewer is available.

The 80,000 square foot lot size provides ample room to locate a well and a septic system while providing additional area to relocate either facility, if necessary. The 80,000 square foot lot size has sufficient area to allow siting of structures to avoid minor environmental problems on a site such as wet areas or drainage swales. Larger lots in rural areas will also have less impact on adjacent agricultural uses since there will be greater buffer areas between homes and agricultural activities. Finally, the larger lot size will lower the overall density of housing in the Agricultural (A) Zoning District where significant development pressure is not expected to occur for some time into the future.

Minimum lot width for the 80,000 square foot lot should be 200 feet except for lots along designated arterials and collectors. Front yard and rear yard setbacks are 50 feet and maximum lot coverage is 25%, except along designated arterials and collectors where the front yard setback must comply with the requirements of the Town Highway Overlay District. Side yard setbacks can be a minimum of 20 feet on either side.

Uses permitted by right in the Agricultural (A) District will be single-family dwellings and farms as is the current situation.

Agricultural – Residential District (AR-40)

This district will be used for undeveloped parcels within the County's Consolidated Sanitary Sewer District that do not currently have public sewers directly available. AR-40 lots typically will have public water and septic systems. Uses permitted by right in this district will be single-family dwellings and farms. The only controlled site use will be utility substations, churches, public schools, and farm stands. Special permit uses include child day care facilities, private schools, nursing homes, parks, playgrounds and recreational facilities (privately operated, but not- for-profit), regulation golf courses, country stores, tourist homes, and veterinary treatment facilities. This district is intended for single lot and residential subdivision development at the 40,000 square foot lot size within reasonable proximity to existing infrastructure. Due to the extremely high public infrastructure maintenance cost for developments consisting of 40,000 square foot lots the Town should require such developments to, at least, provide privately owned and maintained roadways

built to Town standards.

Geometric requirements for the AR-40 District will include a 40,000 square foot minimum lot size, 150 foot minimum lot width measured at the front yard setback line, a 50 foot front yard setback, a 50 foot rear yard setback, a minimum 15 foot side yard setback with both side yards combined to equal or exceed 40 feet, maximum lot coverage of 20% and a maximum building height of 30 feet.

Other Residential Districts

To avoid and minimize impacts upon significant environmental features and to promote the sound use of public facilities and infrastructure the following districts are intended to promote the formation of low to moderate density neighborhoods.

The Residential-20 (R-20) District is designed to encourage residential development in conjunction with the provision of public water and sewer services. This district is to be applied to areas already served by such facilities or to sites with planned developments that address the provision of essential water and sewer facilities.

The Residential-12.5 (R-12.5) District is intended to encourage medium density residential development in conjunction with water and sewer services. Provisions for open space protection and/or recreation may be provided on a neighborhood or community basis and should include portions of sites affected by sensitive environmental features. Development within this district should encourage the formation of cohesive neighborhoods that are harmoniously blended with the lower or higher intensity uses of surrounding areas.

Planned Unit Development (PUD) District

The PUD District will continue to be used to provide flexibility in land use and geometric controls. To avoid conflicts with recommended provisions of the Town Land Use Plan, when a PUD General Project Plan provides for stricter supplemental regulations, then its controls shall govern a site development. PUD developments will continue to provide flexibility in land use for a combination of single family homes, apartments and higher density condominium / townhouse development. Developers of PUD's will be expected to provide suitable wastewater disposal and all infrastructure to connect to all public utilities as well as open space as a part of their land use plan. PUD developments will be subject to Town Board approval for the PUD zone change request and the Town Planning Board for site plan review and approval.

Incentive Zoning

An incentive Zoning Overlay has been applied to multiple AR-40 parcels and to one Industrial parcel to allow developers to increase density and other concessions in exchange for anyone or more of the following amenities:

- The provision of a conservation easement as shown.
- Enrollment of such areas into a NYS Agriculture district.
- Provision of utilities and infrastructure, primarily sewers connected to a publically owned wastewater treatment facility.
- The incorporation of natural resources such as woodlands, steep slopes, streams, and wetlands into the sub division design.
- Provision of Park Land.
- Provision of funds for the Town to apply to anyone or more of the above.

For the Industrial parcel a developer willing to conduct a "Brownfield Remediation" of the abandoned oil tank site; the site can be developed either as Waterfront Residential or Commercial. Sewers connecting to a publically owned wastewater treatment facility will also be required.

Where The IZ Overlay shows the need for a conservation easement and NYS Ag. District for property currently owned by the farmer it is the intent that if the farmer wishes to sell such property for development or wishes to self-develop that the easement be procured at the time of sale.

As a part of the Incentive Zoning process the Town Planning Board must take an active role in working with the developer to best assure that fiscal analysis is proper for the scope of the entire development not just for capital expense but must include life cycle analysis as well. This analysis must ensure that the Town is making sound investments that it and its residents can sustain long term. That the development is consistent with the character of the community and takes advantage of the natural environment surrounding and within the subdivision. It is expected that for major subdivisions (5 or more lots) a representative of the Planning Board if not the entire Planning Board will participate in a site walk-through with the developer's design professional followed by a design discussion session for the purpose of firmly establishing the basis for going forward with the implementation of the exchange of the appropriate amenities for the requested development rights.

A draft Article XXVII to replace the two TDR Articles in the Town's Zoning Chapter 139 Code is presented in Appendix A.

Justification for Non-Continuous Development

The Town may be approached by developers in the future for permission to develop in areas within the County Sanitary District not immediately adjacent to either existing development or to existing water and sewer infrastructure. In these instances, the Town may require developers to provide justification for their proposed development. Such justification should include plans for developer funding of needed infrastructure expansion, an analysis of the new development's impact on adjacent areas of the Town, and a discussion of ancillary costs of development such as improvements to existing roads, new roads needed and long-term environmental costs. The Town can request supporting documentation such as a market study to provide assurance that there is a market for the new development. This justification will help protect the Town from a failed development that may leave large infrastructure costs to be carried by taxpayers of the Town or a small group of residents within sewer and water districts. The establishment of new PUDs in the Town will be an acceptable method of evaluating ways to mitigate illogical infrastructure extensions. The intent is to reduce the long-term burden of operation and maintenance of infrastructure on the local tax base.

Public Safety

Lysander has a long, proud history of providing services to the residents and visitors of our community. Lysander Town Government must continue to work closely with fire, ambulance and law enforcement agencies to provide quality services well into the future. The Lysander Town Board will continue to be an active participant of the Lysander Public Safety Committee. Lysander will recognize the autonomy of the fire districts, but will continue to engage in open discussions to provide the best possible services to the community.

ImplementationProcedures

The Lysander Planning Board will develop a protocol to notify emergency response agencies of any new proposed developments within their districts or areas where services are provided. In addition, the Lysander Planning Board will be responsible for providing a protocol for fire districts, in particular, to review and provide feedback on any and all housing developments and new commercial and industrial construction in Lysander. This will help assure the inclusion of any necessary modifications into a part of the site plan approval process.

The Public Safety Committee should assist the Districts in developing common Standard Operating Procedures (SOPs) and to train their dedicated staff in such. It is felt that doing so will facilitate training of new members, perhaps in a more central manner than is currently practiced. Practices which are common from one District to another, to the extent possible given geographical/other differences, should also help to coordinate “Mutual Aid” and other multi District activities such as recruiting and retention.

Appendix A

Draft Zoning Code Article XXVII "Incentive Zoning"

Appendix A

ARTICLE XXVII

INCENTIVE ZONING

§139-72. Purpose and Intent.

The Town Board has determined that it is appropriate to make adjustments to permissible density and area requirements for specific purposes of preserving farmland and open space as well as to promote the extension of roadways, sewers and other such amenities at a minimum cost to the residents and taxpayers. It is the intent of this Article to empower the Town Board to grant incentives or bonuses to advance the vision and policies articulated in the Town of Lysander's Comprehensive Plan, and the following objectives:

A. The preservation and enhancement of natural and cultural features.

B. The accommodation of land uses and physical site arrangements which are not contemplated under conventional zoning, but which would further the land use conservation and development goals of the Town.

C. The creation of usable open space and recreation lands and trails.

D. The preservation of farmland, scenic view sheds, water resources, forests, meadows, geologic features, environmentally sensitive areas, significant plant and animal habitats, and important ecological resources.

E. The provision of a more desirable environment than what would be possible through the strict application of existing zoning regulations.

F. The promotion of the general health, safety, and welfare of the Town.

§139-73. Legislative Authority

In accordance with §261-b of the Town Law of the State of New York, the Town Board of Lysander is empowered to provide for a system of zoning incentives or bonuses in exchange for specific social, economic, or cultural benefits or amenities as the Town Board deems necessary and appropriate and which are consistent with the intent and purpose set forth in §139-72.

§139-74. Applicability.

The Incentive Zoning Program was developed pursuant to §261-b of the Town Law of New York State and the Town of Lysander Land Use Plan (Comprehensive Plan). Incentive Zoning areas shall be indicated as floating overlay zones on the official Town of Lysander Zoning Map and may be adjusted over time following due process through Town Law. The procedure for amending the Incentive Zoning area overlays shall be the same as for an amendment to the Town Zoning Map.

§139-75. Definitions.

For the purpose of this Article, the terms used are defined as follows:

COMMUNITY BENEFITS OR AMENITIES

Open space which has physical, economic, social or cultural benefit to the residents of the community.

INCENTIVES OR BONUSES

Adjustments to the permissible density, area, height, use or other requirements of the Zoning code for the Town of Lysander and any amendments thereto in exchange for a specific community benefit or amenity that provides for the significant preservation of open space in a manner not otherwise allowed by the Zoning Law; these adjustments may incorporate two (2) or more non-contiguous parcels of land.

INCENTIVE ZONING

The system by which specific incentives or bonuses are granted, pursuant to §261-b of the New York State Town Law, on condition that specific social, economic, or cultural benefits or amenities are provided to the community.

§139-76. Benefits or Amenities.

A. The following benefits or amenities may be either on or off the site of the subject application:

1. Preservation of farmland or open space.
2. Regional Parks.
3. Utilities and appurtenances in excess of those required to mitigate proposed development impacts.
4. Preservation of cultural or historic facilities in excess of those required to mitigate proposed development impacts.
5. Other facilities or benefits to the residents of the community which are consistent with the purpose and intent of this Article, as determined by the Town Board.
6. Any combination of above-listed amenities and/or cash in lieu of any amenity(s) for specific purposes identified.

B. These amenities shall be in addition to any mandated requirements pursuant to other provisions in Chapter 139, Zoning Code for the Town of Lysander.

§139-77. Incentives or Bonuses.

The following incentives may be granted by the Town Board to an application on a specific site:

A. Increases in residential or non-residential unit density.

B. Changes in use.

C. Increases in lot coverage.

D. Changes in setbacks or height.

E. Increases in floor area.

F. Reduction of required buffer area.

§139-78. Criteria and Procedure for Approval.

A. A pre-application conference shall be held prior to the submission of an application for incentive zoning. The purpose of a pre-application conference is to inform the applicant of applicable procedures, submission requirements, development standards and other pertinent matters before the applicant finalizes the incentive zoning proposal.

1. The pre-application conference will be coordinated through the Planning Board.

2. The applicant requesting consideration for incentive zoning is required to attend the pre-application conference.

3. Opinions presented during a pre-application conference are advisory in nature and do not represent a commitment on behalf of the Town Board or represented agency regarding the acceptability of the incentive zoning proposal.

B. An application for incentive zoning will consist of a letter of intent accompanied by the following information:

1. Once concept plan showing the site developed to its fullest extent under the zoning regulations in Chapter 139 of the Town Code, and one concept plan showing the site developed in a manner that incorporates the desired incentive and amenity to be provided. These plans shall show the following information:

    a. Location and extent of all proposed land uses, including development areas and open spaces, with areas shown in acres.

    b. All interior streets, roads, access easements and their planned private or public ownership, as well as all points of access and egress from existing public rights-of-way.

    c. An area map showing adjacent parcels; that portion of the applicant's property under consideration; all properties, zoning districts, sub-divisions, streets, access, easements, watercourses, drainage facilities, buildings, structures, and other significant natural and built features within 300 feet of the applicant's property, and all uses of abutting lands.

2. A written description of the proposed amenity.

3. The cash value of the proposed amenity.

4. A narrative which:

    a. Describes the benefits to be provided to the community by the proposed amenity.

    b. Provides a preliminary indication that there is adequate sewer, water, transportation, waste disposal and fire-protection facilities in the zoning district in which the proposal is located to handle the additional demands the incentive and amenity may place on these facilities beyond the demand on them as if the site were developed to its fullest extent under the zoning regulations in Chapter 139 of the Town Code.

    c. Explains how the amenity helps implement the vision and policies of the Comprehensive Plan, and land use goals of the Town as supplemented by the laws and ordinances adopted by the Town Board.

    d. Description of the requested incentive.

e. Completed long environmental assessment form, Part I.

5. Fifteen sets of the application shall be provided to the Town for distribution and review. The Town Board, upon receipt of an application, and as part of its review, shall refer the application to the Planning Board and to the Zoning Board of Appeals for their review and recommendations.

C. The Planning Board shall forward a written recommendation to the Town Board indicating whether or not it supports the approval of the incentive and amenity. This recommendation shall consider the following:

1. The suitability of the site(s) for the type of open space preservation, sewer, roadway or other amenities proposed, the physical characteristics of the land, and the relation of the proposed development to surrounding existing and probable future development.

2. The adequacy of major roads, utilities and other facilities and services to serve the development.

3. That the proposal is conceptually sound, is consistent with the Town Comprehensive Plan, and meets local and area wide needs.

D. The Zoning Board of Appeals shall forward a written recommendation indicating its position with respect to the application and relevant observations, issues, and/or questions.

E. The application shall be referred to the Onondaga County Planning Department for its review. The Town may also refer the application to the Town Engineer, as well as other local and county officials, representatives of federal and state agencies and consultants as deemed appropriate. These agencies may include, but are not limited to, the Onondaga Farmland Protection Board, Onondaga County Agricultural Council, the Onondaga County Department of Water Environment Protection, the Onondaga County Department of Transportation, the New York State Department of Transportation, and the New York State Department of Environmental Conservation.

F. Once the application has been determined to be complete, a public hearing will be scheduled before the Town Board. The Town Clerk shall give notice of the hearing in the official newspaper of the Town at least ten (10) days prior to the date of the hearing.

G. All applicable requirements of the State Environmental Quality Review ("SEQR") Act shall be complied with as part of the review and hearing process. In addition to other information that may be required as part of the environmental assessment of the proposal, the assessment shall include verification that the zoning district in which the proposal is to be located has adequate sewer, water, transportation, waste disposal, and fire-protection facilities to:

1. First, serve the remaining vacant land on the site as though it were developed to its fullest potential under the zoning regulations in effect at the time of the amenity/incentive proposal; and

2. Then, serve the on-site amenity and incentive, given the development scenario in Sub-Section G(1) above.

H. In order to approve an amenity/incentive proposal, the Town Board shall determine that the requirements of SEQR have been met and the proposed amenity provides sufficient public benefit to provide the requested incentive. In order to make this determination, the Town Board may require the completion of an environmental impact statement. Thereafter, the Town Board is authorized to act on an application for approval pursuant to this Article.

§139-79. Cash In Lieu of Amenity or Bonus.

If the Town Board finds that a community benefit is not suitable on site or cannot be reasonably provided, the Town Board may require a cash payment in lieu of the provision of the amenity or bonus. These funds shall be placed in a trust fund to be used by the Town Board exclusively for amenities specified in these provisions. Payments shall be made by the applicant prior to the issuance of any permit, stripping of any ground cover, site grading, or any other site improvements or construction activities.

Appendix B

Traffic Study

Memorandum

TO: Town of Lysander Comprehensive Plan Update Committee

FROM: Meghan Vitale, SMTC

DATE: August 12, 2014

RE: Traffic data compilation and summary (Technical Memorandum #1)

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The SMTC has compiled intersection turning movement count data and available Annual Average Daily Traffic (AADT) data for a number of locations within the Town of Lysander. The data are summarized here for use by the Comprehensive Plan Update Committee members.

Intersection turning movement count data

The Committee provided the SMTC with a list of intersections of interest within and adjacent to the town. These intersections are listed in Table 1. As indicated in Table 1, turning movement counts were recently completed by NYSDOT or a consultant for some of these intersections; SMTC staff conducted turning movement counts for the remaining intersections. Detailed diagrams of each of the intersections counted by SMTC are included in Attachment A. Raw turning movement count data for the intersections counted by SMTC and NYSDOT are included in Attachment B.

Turning movement counts were conducted from 7:00 a.m. to 9:00 a.m. and from 4:00 p.m. to 6:00 p.m. The resulting AM and PM peak hour volumes are shown on Figure 1. The peak hours for each intersection are listed in Table 1, along with the type of traffic control for that intersection. In general, the intersections of interest experienced a morning peak hour from 7:00 a.m. to 8:00 a.m. and an evening peak hour from 4:45 p.m. to 5:45 p.m.

The Route 370/John Glenn Boulevard intersection, which is just outside of the Town of Lysander (in the Town of Salina), experiences the highest traffic volumes of all of the intersections included in this analysis. The intersections with the next highest traffic volumes are Route 370/Route 48 in the Village of Baldwinsville and Route 31/River Road. At the Route 370/Route 48 intersection, the northbound right-turn and westbound left-turn volumes are notably high, with about 430 vehicles during the AM peak hour and over 500 vehicles in the PM peak hour.
~~~~~~

Table 1: Summary of intersection data

Intersection	Count date	Source	Traffic control	Peak Hour Start		Total Entering Peak Hour Volume	
				AM	PM	AM	PM
Route 690 / Hencle Boulevard	June 2014	SMTC	Signalized	7:00 a.m.	4:45 p.m.	1,200	1,440
Route 370 / Route 690 southbound ramps	June 2014	SMTC	Unsignalized	7:00 a.m.	4:45 p.m.	910	1,060
Route 370 / Route 690 northbound ramps	June 2014	SMTC	Unsignalized	7:00 a.m.	4:45 p.m.	630	1,120
Route 370 / Route 48	June 2014	SMTC	Signalized	7:00 a.m.	4:30 p.m.	1,670	2,060
Route 370 / Route 631 (Baldwinsville Bypass)	June 2014	SMTC	Signalized	7:00 a.m.	5:00 p.m.	630	850
Route 370 / Hicks Road / Hayes Road	October 2012	GTS Consulting	Unsignalized	7:15 a.m.	4:45 p.m.	930	1,010
Route 370 / River Road	October 2012	GTS Consulting	Unsignalized	7:15 a.m.	4:45 p.m.	1,120	1,360
Route 370 / John Glenn Boulevard	October 2012	NYSDOT	Signalized	7:15 a.m.	4:45 p.m.	2,520	3,120
Route 31/ River Road	October 2012	GTS Consulting	Signalized	7:00 a.m.	4:45 p.m.	1,550	2,460
River Road / Hicks Road / Patchett Road	October 2012	GTS Consulting	Unsignalized	8:00 a.m.	4:45 p.m.	550*	800*

* Does not include volume on Patchett Road westbound

Town of Lysander Comprehensive Plan Update
Technical Memorandum #1

Figure 1: Existing intersection turning movement volumes

38(43)
17(35) AM(PM) Peak Hour traffic volume
58(89)

0 0.5 1 2 Miles

Data Sources: SMTC; NYSDOT, 2014; GTS Consulting, 2012
Prepared by SMTC, 6/2014

Rt. 31/ River Rd

Rt. 690/ Hencle Blvd

Rt. 370/Rt. 690 SB Ramps

Rt. 370/Rt. 690 NB Ramps

Rt. 370/ Rt. 48

Rt. 370/ Rt. 631

Rt. 370/ Hicks Rd/ Hayes Rd

Rt. 370/ River Rd

River Rd/ Hicks Rd/ Patchett Rd

Rt.370/ John Glenn Blvd

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Fax: (315) 422-7753
www.smtcmpo.org

Table 2 compares the volume of traffic entering Route 690 southbound (SB on) and exiting Route 690 northbound (NB off) at the Routes 370/31 and Hencle Boulevard exits during the morning and evening peak hours. (Since Hencle Boulevard is the northern terminus of Route 690, traffic can only enter to travel southbound and exit from Route 690 northbound at this location. The exit at Routes 370/31 also allows for northbound entering and southbound exiting movements, but these volumes are relatively minor.)

Table 2: Traffic entering and exiting Route 690 in the Town of Lysander (vehicles per hour)

	AM Peak Hour		PM Peak Hour	
Route 690 exit	**SB on**	**NB off**	**SB on**	**NB off**
Routes 370/31	510	170	270	590
Hencle Boulevard	730	330	450	810

As shown in Table 2, the AM peak hour southbound on (entering) volume and the PM peak hour northbound off (exiting) volume are the highest volumes. This is expected since these are the movements likely to be made by a commuter living in the Town of Lysander and working anywhere south of the town, including in Syracuse. Significantly more traffic utilizes the Hencle Boulevard exit for these movements than the Routes 370/31 exit, but this is largely due to the high northbound and southbound through movement volumes at the Route 690/Hencle Boulevard intersection. These are the turning movements that would be made by commuters accessing points north of Hencle Boulevard in the Town of Lysander and into Oswego County.

Most of the residential development within the Town of Lysander is located east of Route 690. The turning movement volumes at the two Route 690 exits for traffic to/from points to the east is fairly evenly split, with about 150-200 vehicles entering Route 690 southbound from the east during the AM peak hour and exiting Route 690 northbound to the east during the PM peak hour at each exit.

Traffic volume data for road segments and bridges

SMTC staff examined Annual Average Daily Traffic (AADT) data available from the NYSDOT Traffic Data Viewer for road segments throughout the Town of Lysander. Figure 2 shows the available AADT data.

The highest traffic volumes in the town are on Route 31 between the Village of Baldwinsville and the Town of Clay. With over 19,700 vehicles per day, the Route 370/Route 31 overlap within the Village of Baldwinsville is the segment with the highest traffic volume. Most of the other road segments with substantial traffic volumes are located in the southeastern portion of the town (Baldwinsville, Radisson, and Cold Springs areas). Route 48 north of Hencle Boulevard is an exception to this statement, carrying nearly 8,400 vehicles per day and providing access to/from Route 690.

Town of Lysander Comprehensive Plan Update
Technical Memorandum #1

Figure 2: Existing traffic volumes

XX,XXX = Annual Average Daily Traffic (AADT), two-way (vehicles per day)

0 0.5 1 2 Miles

Data Source: NYSDOT Traffic Data Viewer, 2012 estimates
Prepared by SMTC, 7/2014

OSWEGO CO
ONONDAGA CO
COUNTY LINE RD
VILLAGE OF PHOENIX
6,400
4,730
LAMSON RD
LYSANDER
48
8,400
CHURCH RD
CAYUGA CO
ONONDAGA CO
EAST MUD LAKE RD
FENNER RD
BEAVER LAKE
BEAVER LAKE NATURE CENTER
GREENE POND
THREE RIVERS STATE WILDLIFE MANAGEMENT AREA
KELLOGG RD
OSWEGO RD
SMOKEY HOLLOW RD
SIXTY RD
HENCLE BLVD
690
3,530
631
WEST ENTRY RD
WILLETT PKWY
DRAKES LANDING RD
LYSANDER TOWN PARK
PHILLIPS ST
11,410
DUNHAM RD
PLAINVILLE RD
VANN RD
31
21,180
15,400
14,670
5,620
4,340
E. ONEIDA ST
11,210
2,050
6,150
19,760
6,600
SALINA ST
11,850
9,040
17,550
8,050
WEST GENESEE RD
370
SENECA RIVER
TATER RD
PATCHETT RD
RIVER RD
HICKS RD
2,630
VILLAGE OF BALDWINSVILLE
SPRAGUE RD
COLD SPRINGS RD
13,350
CLAY
CLAY MARSH WILDLIFE MANAGEMENT AREA
481
CROSS LAKE
ERIE CANAL
980
1,750
VAN BUREN
173
90
SALINA
VILLAGE OF LIVERPOOL
GEDDES
ONONDAGA LAKE
CAMILLUS
264
12
57
OSWEGO RIVER
ERIE CANAL

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www.smtcmpo.org

The Seneca and Oswego Rivers form the southern and eastern borders of the town and, as such, access to the town is limited by the available bridges. Table 3 lists the bridges over the Seneca and Oswego Rivers along the border of the Town of Lysander and the AADT carried by each bridge.

Table 3: Traffic volumes on bridges over the Seneca and Oswego Rivers accessing the Town of Lysander

Road	Location	AADT* (vehicles per day)
Plainville Road	Near Jack's Reef	1,750
Route 690	West of Village of Baldwinsville	17,550
Route 48	Village of Baldwinsville	11,850
Route 370	Southern tip of Cold Springs Peninsula	13,350
Route 31	East of Radisson	21,180
Lamson Road	Near Village of Phoenix	6,400

*Source: NYSDOT Traffic Data Viewer, all 2012 forecast volumes except Route 690 is 2012 actual volume.

Based on the traffic volumes in Table 3, most traffic accesses the Town of Lysander via the Route 31 bridge to/from the Town of Clay. Route 690, Route 370, and Route 48 also carry substantial traffic in and out of the Town of Lysander. The Plainville Road and Lamson Road bridges carry significantly less traffic.

Summary

SMTC has examined the available intersection turning movement count data and AADT data for road segments within the Town of Lysander. The Route 370/Route 48 and Route 31/River Road intersections experience the highest traffic volumes of the intersections examined within the town, although more traffic uses the Route 370/John Glenn Boulevard intersection just over the town line in the Town of Salina. Route 690 and Route 31 carry the largest traffic volumes within the town. These roads, along with Route 48 and Route 370, provide access for most travelers to and from the town via bridges over the Seneca River. In general, the highest traffic volumes are on the roads in the southeastern portion of the Town, most notably Route 31, although Route 48 north of Hencle Boulevard also carries a substantial volume of traffic to and from Route 690 and points to the north.

Attachment A

Intersection diagrams

INTERSECTION DIAGRAM

Location: Route 370/31 and Route 48

Legend: Sidewalk; Mast Arm; Traffic Signal; 12' Distances in Feet

Drawn By: DA

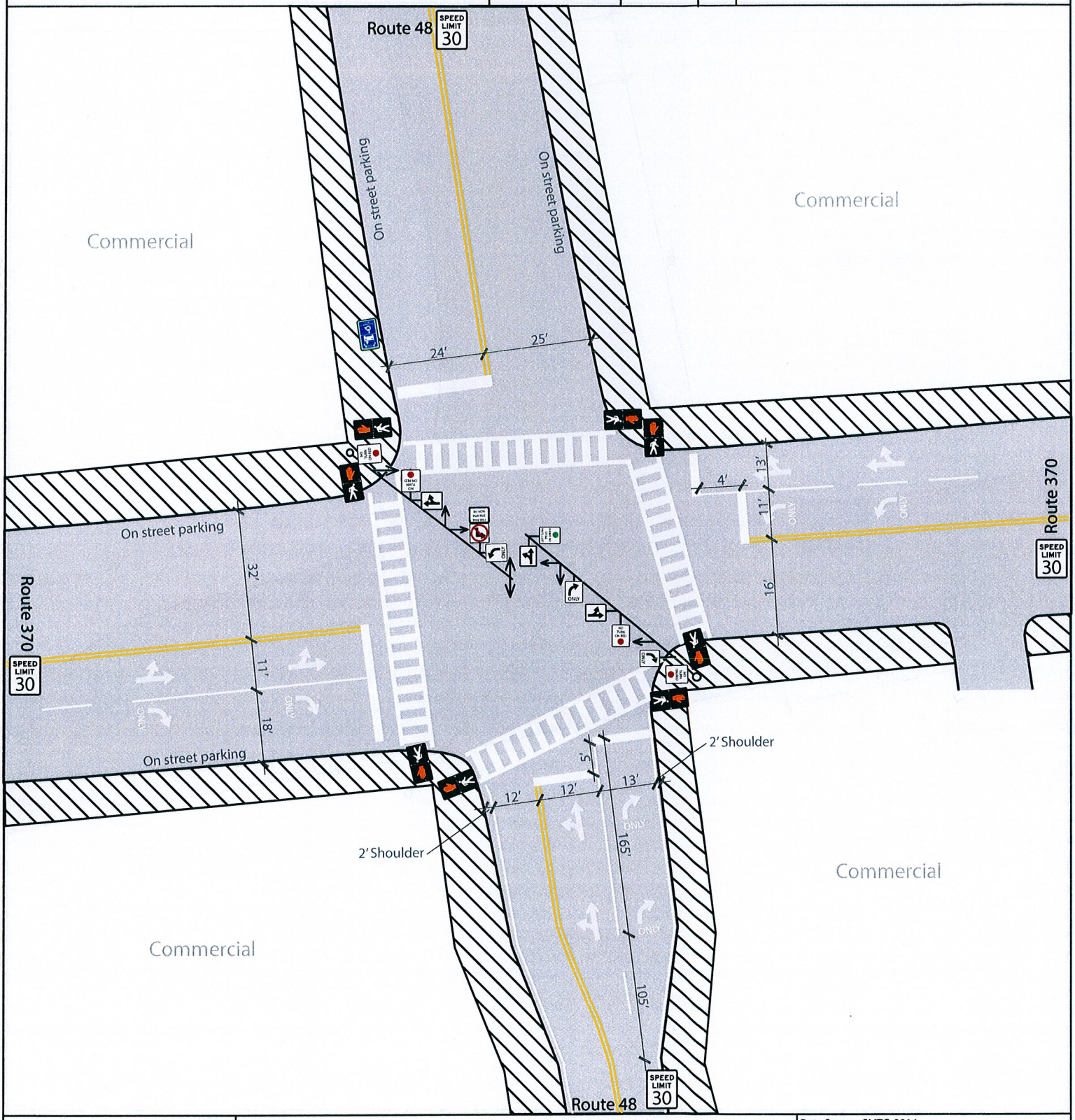
Date: June 2014

Prepared By: SMTC

N

Note:
Only actual pavement markings were drawn. An absence of arrows/striping indicates no pavement markings.

All approaches are curbed.



Task

Town of Lysander
Comprehensive Plan Update

Data Source: SMTC, 2014.

Diagram is for presentation purposes only.
SMTC does not guarantee the accuracy or completeness of this diagram.
Diagram is not to scale

INTERSECTION DIAGRAM

Location

Route 370 and Route 631

Legend

Traffic Signal | Span Wire | 12′ Distances in Feet

Drawn By DA

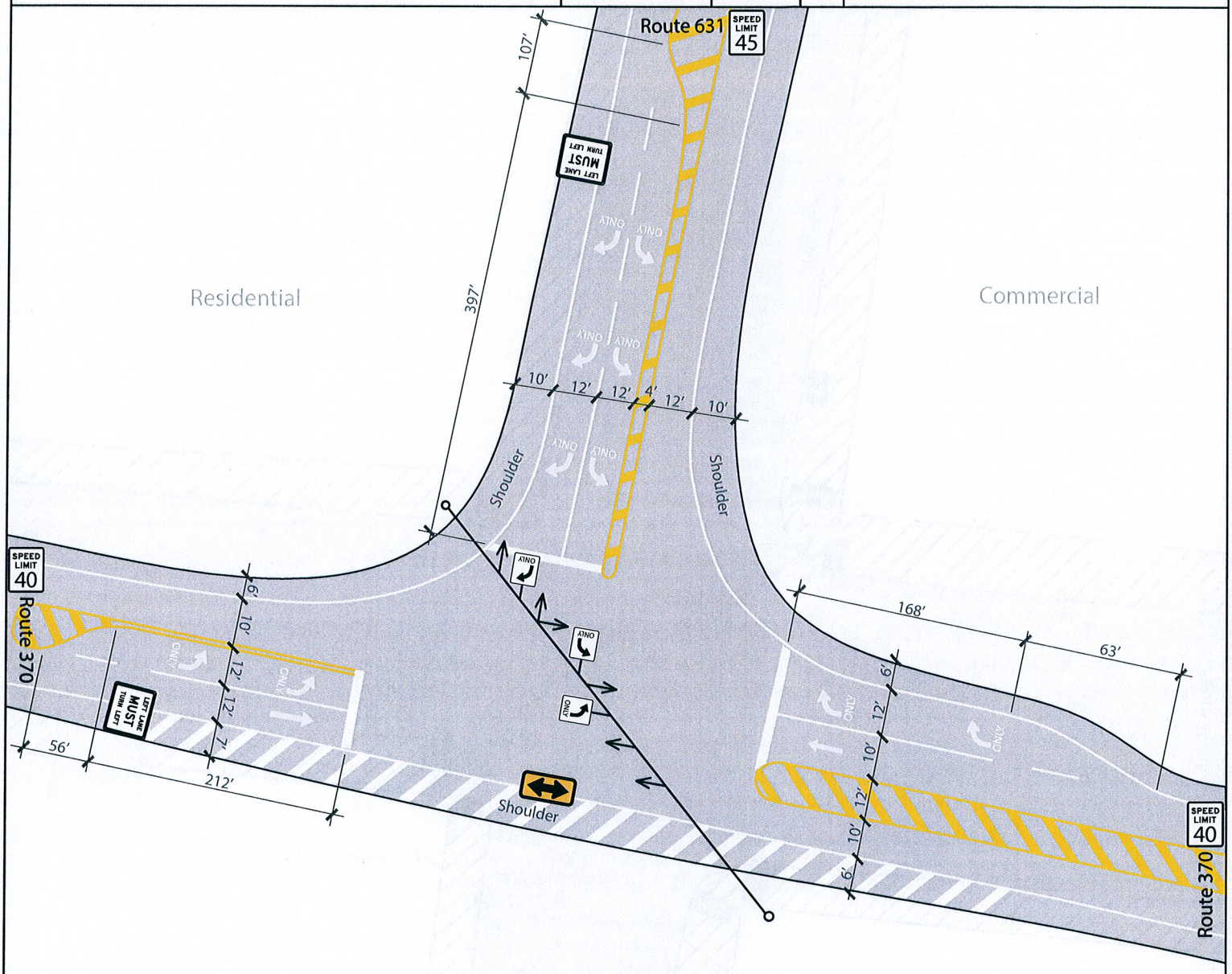
Date June 2014

Prepared By SMTC

N

Note:
Only actual pavement markings were drawn. An absence of arrows/striping indicates no pavement markings.

No curbs on any approach.



Task

Town of Lysander
Comprehensive Plan Update

Data Source: SMTC, 2014.

Diagram is for presentation purposes only.
SMTC does not guarantee the accuracy or completeness of this diagram.
Diagram is not to scale

INTERSECTION DIAGRAM

Location: Route 370 and Route 690 Ramps NB

Legend: 12′ Distances in Feet

Drawn By: DA

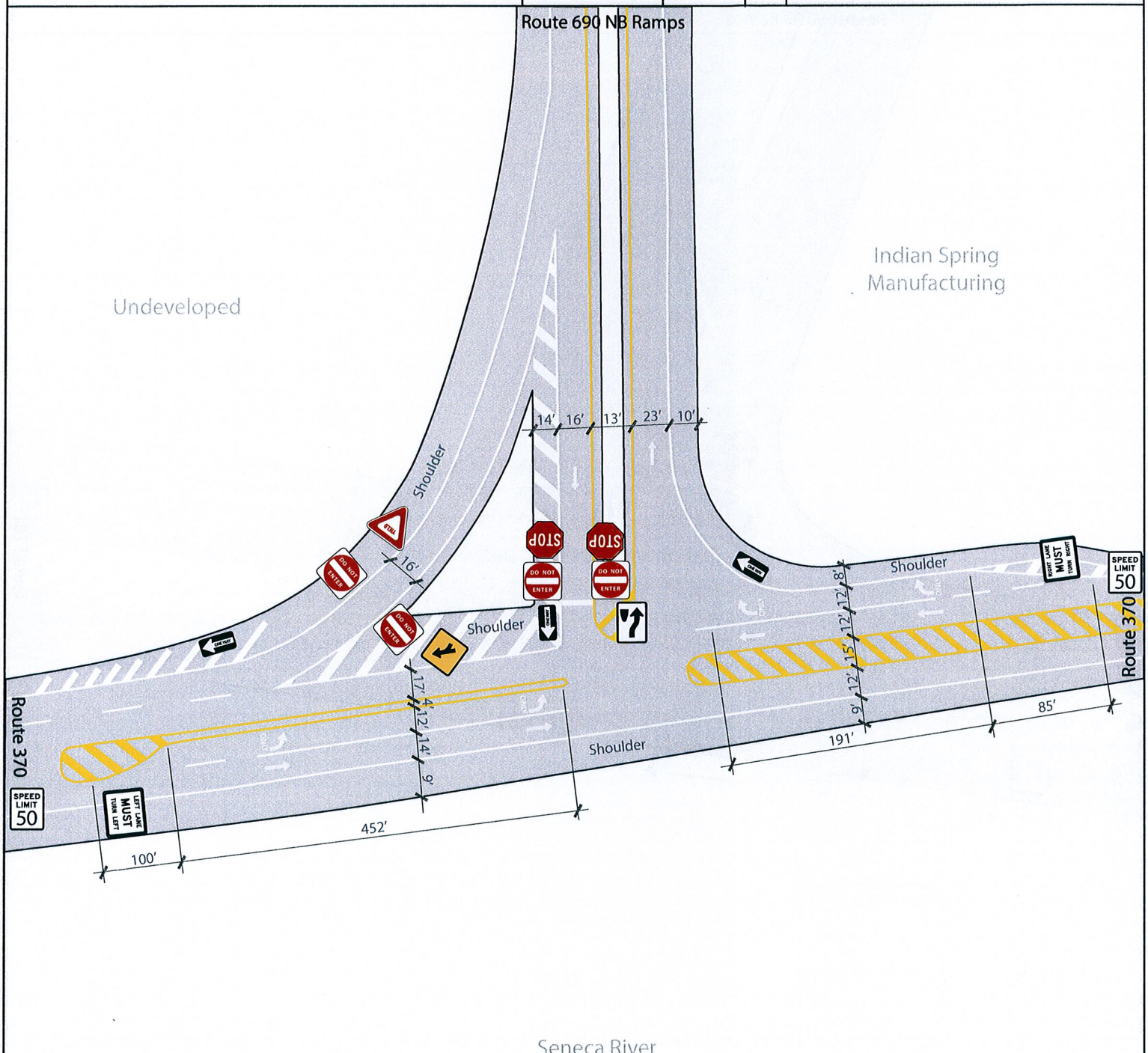
Date: June 2014

Prepared By: SMTC

N

Note:
Only actual pavement markings were drawn. An absence of arrows/striping indicates no pavement markings.

No curbs on any approach.



Task

Town of Lysander
Comprehensive Plan Update

Data Source: SMTC, 2014.

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Diagram is not to scale

INTERSECTION DIAGRAM

Location: Route 370 and Route 690 Ramps SB

Legend: 12' Distances in Feet

Drawn By: DA

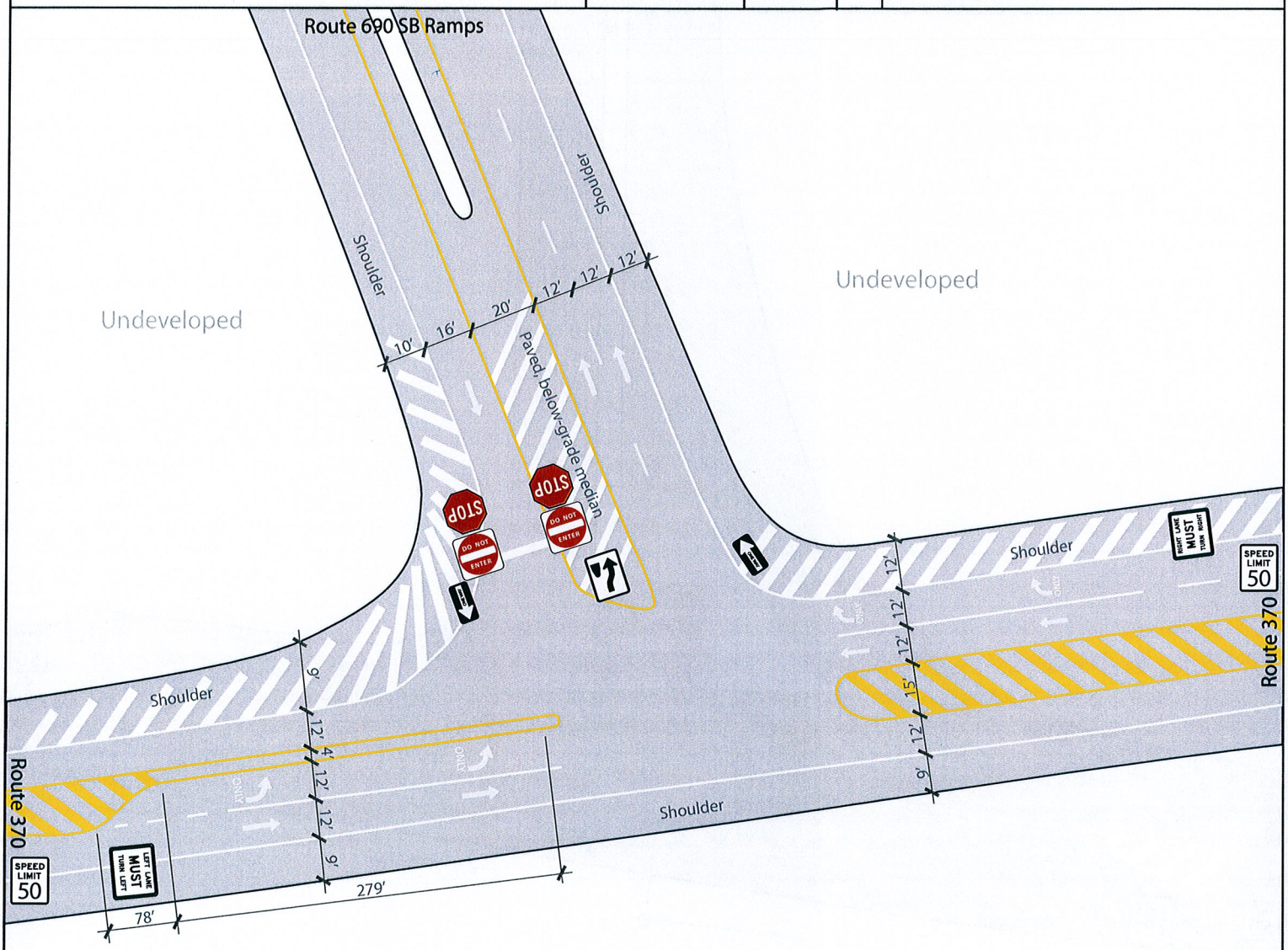
Date: June 2014

Prepared By: SMTC

N

Note:
Only actual pavement markings were drawn. An absence of arrows/striping indicates no pavement markings.

No curbs on any approach.



Task: Town of Lysander Comprehensive Plan Update

Data Source: SMTC, 2014.

Diagram is for presentation purposes only.
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Diagram is not to scale

INTERSECTION DIAGRAM

Location

Route 690, Route 48, Hencle Blvd, and Church Rd

Legend

Traffic Signal | Span Wire | Distances in Feet

Drawn By DA

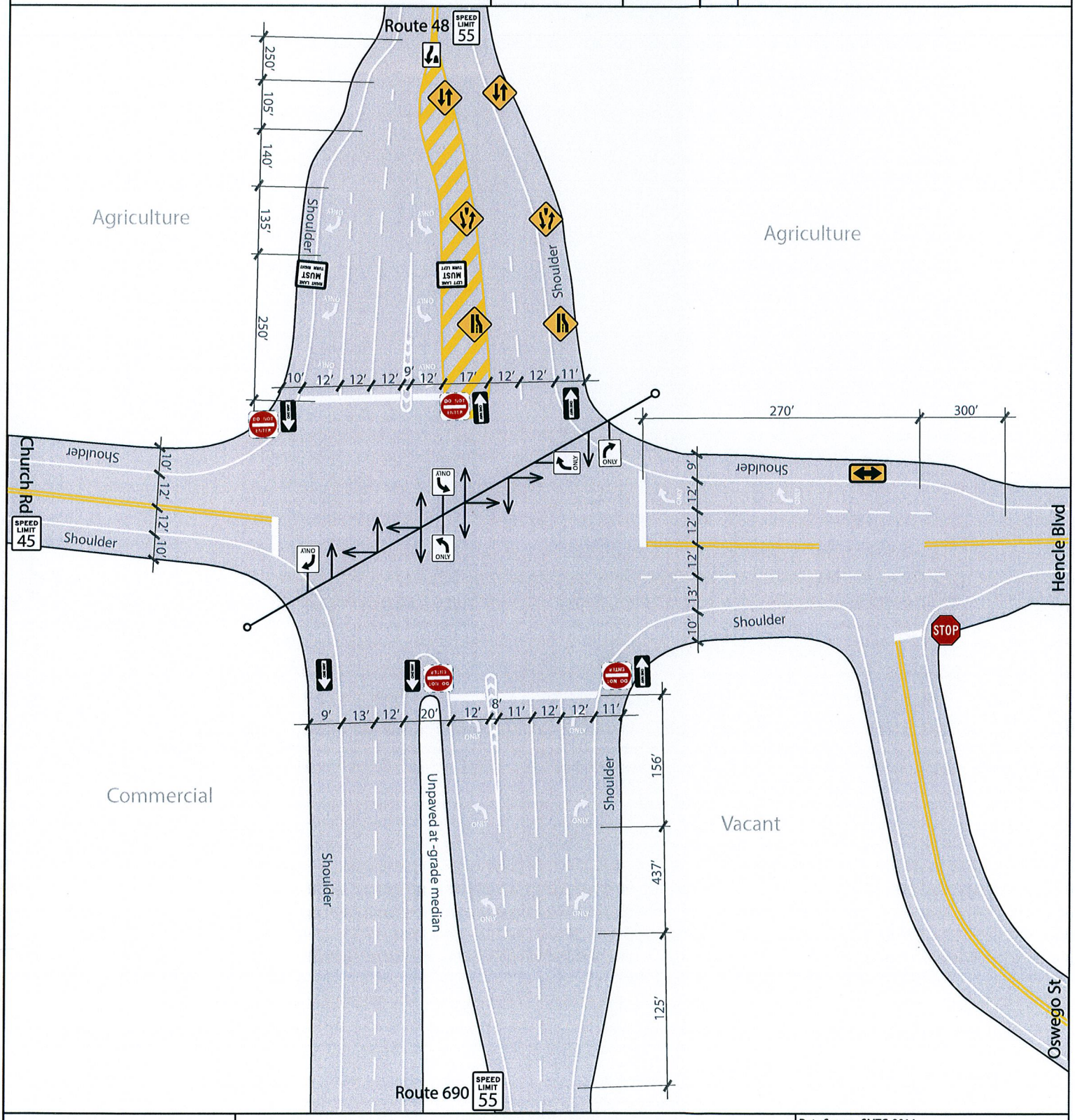
Date June 2014

Prepared By SMTC

N

Note:
Only actual pavement markings were drawn. An absence of arrows/striping indicates no pavement markings.

No curbs on any approach.



Task

Town of Lysander
Comprehensive Plan Update

Data Source: SMTC, 2014.

Diagram is for presentation purposes only.
SMTC does not guarantee the accuracy or completeness of this diagram.
Diagram is not to scale

Attachment B

Peak hour turning movement counts

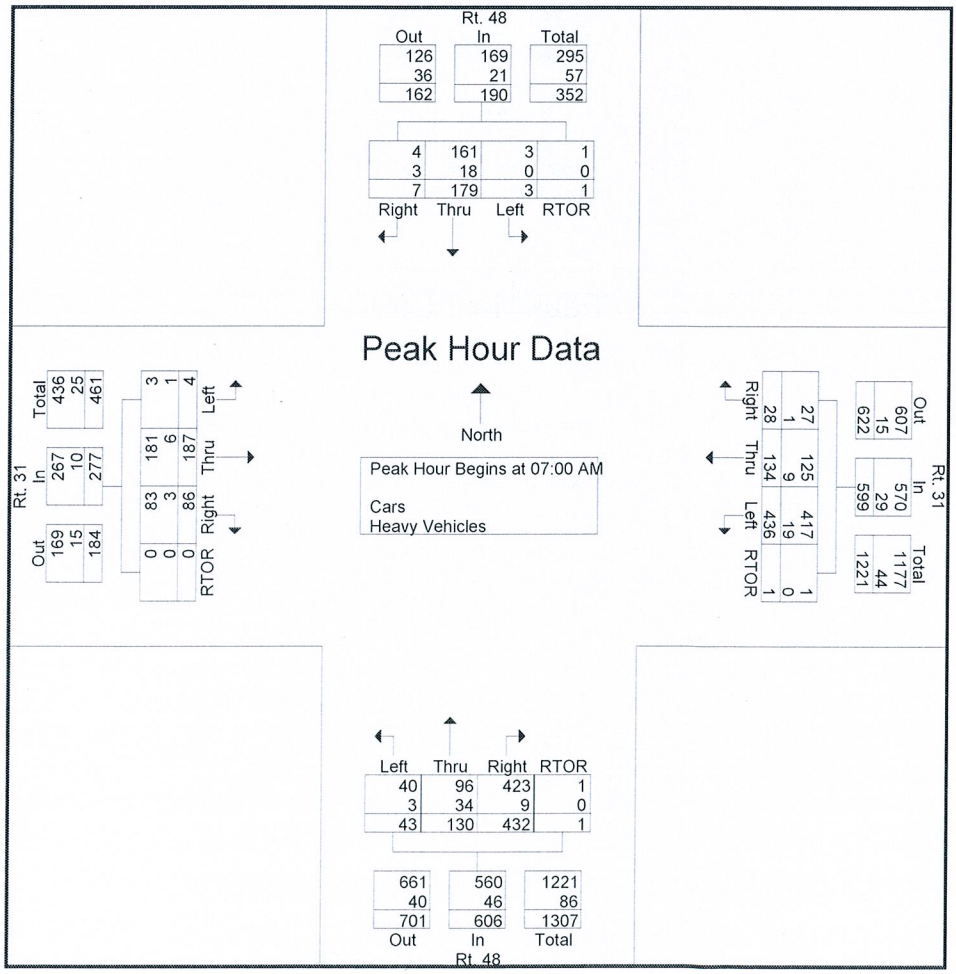
Syracuse Metropolitan Transportation Council

126 N. Salina Street
Syracuse, NY, 13202
www.smtcmpo.org

Village of Baldwinsville
Rt. 31 and Rt. 48
AJM (a.m.), EH (p.m.)
Lysander Comprehensive Plan

File Name : Rt 31_Rt 48_06_19_14_Formatted
Site Code : 06191405
Start Date : 6/19/2014

	Rt. 31 Eastbound					Rt. 31 Westbound					Rt. 48 Northbound					Rt. 48 Southbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	**2**	50	21	0	**73**	97	26	6	**1**	130	10	36	90	**1**	137	**1**	29	1	0	31	371
07:15 AM	1	42	20	0	63	**128**	**40**	8	0	**176**	8	**41**	110	0	159	1	**57**	**3**	**1**	**62**	**460**
07:30 AM	0	44	**27**	0	71	102	33	5	0	140	12	36	**122**	0	**170**	0	51	0	0	51	432
07:45 AM	1	**51**	18	0	70	109	35	**9**	0	153	**13**	17	110	0	140	1	42	3	0	46	409
Total Volume	4	187	86	0	277	436	134	28	1	599	43	130	432	1	606	3	179	7	1	190	1672
% App. Total	1.4	67.5	31	0		72.8	22.4	4.7	0.2		7.1	21.5	71.3	0.2		1.6	94.2	3.7	0.5		
PHF	.500	.917	.796	.000	.949	.852	.838	.778	.250	.851	.827	.793	.885	.250	.891	.750	.785	.583	.250	.766	.909
Cars	3	181	83	0	267	417	125	27	1	570	40	96	423	1	560	3	161	4	1	169	1566
% Cars	75.0	96.8	96.5	0	96.4	95.6	93.3	96.4	100	95.2	93.0	73.8	97.9	100	92.4	100	89.9	57.1	100	88.9	93.7
Heavy Vehicles																					
% Heavy Vehicles	25.0	3.2	3.5	0	3.6	4.4	6.7	3.6	0	4.8	7.0	26.2	2.1	0	7.6	0	10.1	42.9	0	11.1	6.3

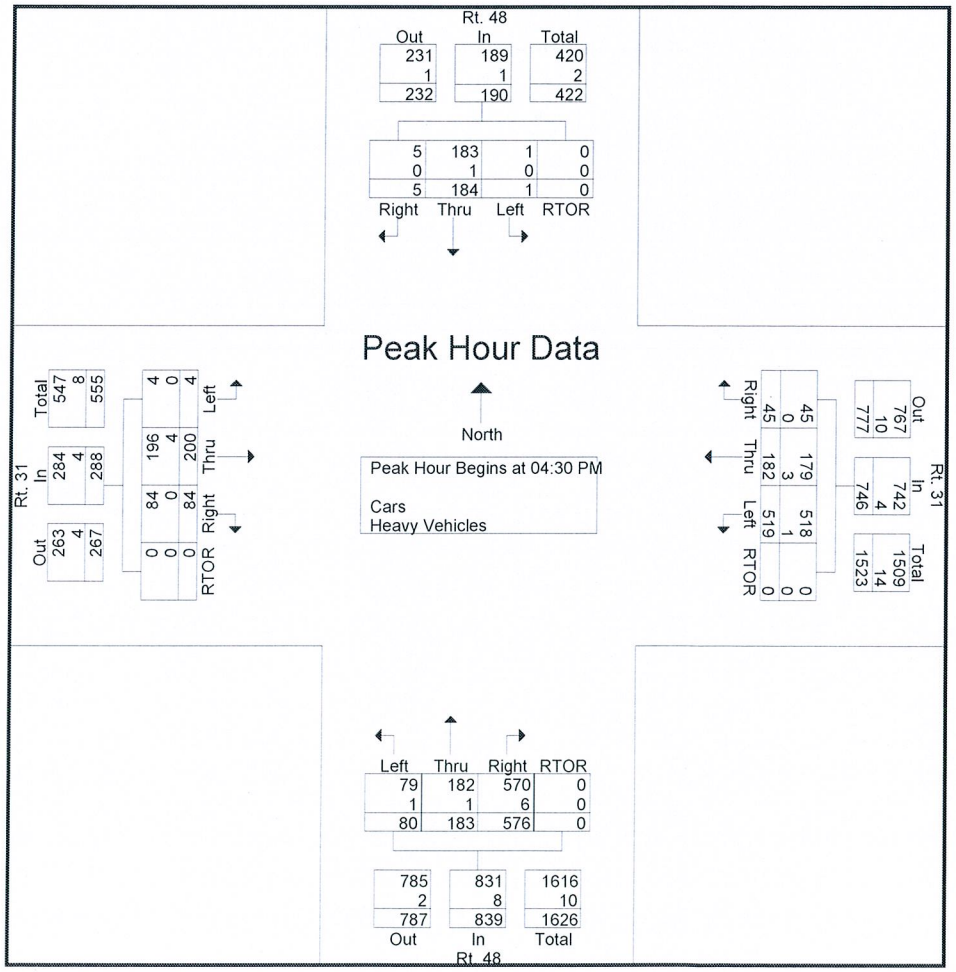


Syracuse Metropolitan Transportation Council
126 N. Salina Street
Syracuse, NY, 13202
www.smtcmpo.org

Village of Baldwinsville
Rt. 31 and Rt. 48
AJM (a.m.), EH (p.m.)
Lysander Comprehensive Plan

File Name : Rt 31_Rt 48_06_19_14_Formatted
Site Code : 06191405
Start Date : 6/19/2014

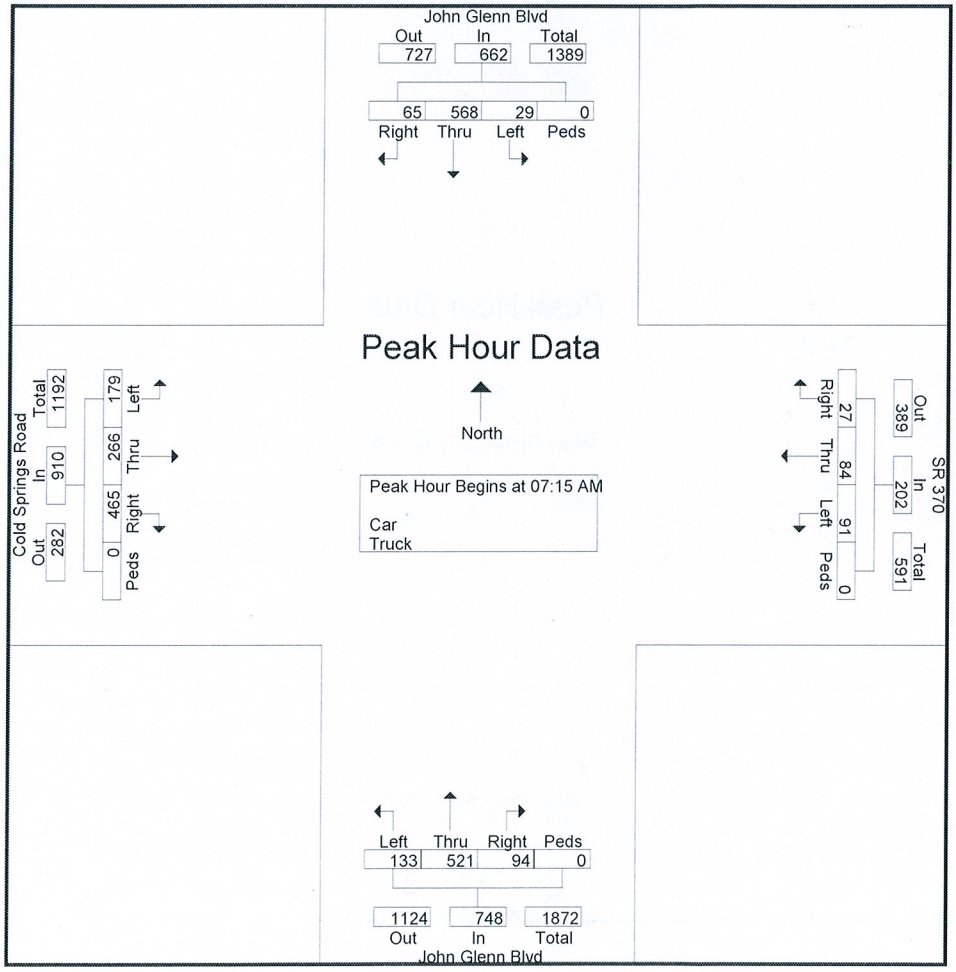
	Rt. 31 Eastbound					Rt. 31 Westbound					Rt. 48 Northbound					Rt. 48 Southbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	0	52	**23**	0	75	128	**48**	8	0	184	**21**	39	144	0	204	0	47	1	0	48	511
04:45 PM	**2**	**56**	21	0	**79**	120	45	6	0	171	21	36	142	0	199	0	32	**3**	0	35	484
05:00 PM	1	44	23	0	68	**137**	46	**18**	0	**201**	20	**55**	138	0	213	0	48	1	0	49	531
05:15 PM	1	48	17	0	66	134	43	13	0	190	18	53	**152**	0	**223**	**1**	**57**	0	0	**58**	**537**
Total Volume	**4**	200	84	0	288	519	182	45	0	746	80	183	576	0	839	1	184	5	0	190	2063
% App. Total	1.4	69.4	29.2	0		69.6	24.4	6	0		9.5	21.8	68.7	0		0.5	96.8	2.6	0		
PHF	.500	.893	.913	.000	.911	.947	.948	.625	.000	.928	.952	.832	.947	.000	.941	.250	.807	.417	.000	.819	.960
Cars	4	196	84	0	284	518	179	45	0	742	79	182	570	0	831	1	183	5	0	189	2046
% Cars	100	98.0	100	0	98.6	99.8	98.4	100	0	99.5	98.8	99.5	99.0	0	99.0	100	99.5	100	0	99.5	99.2
Heavy Vehicles																					
% Heavy Vehicles	0	2.0	0	0	1.4	0.2	1.6	0	0	0.5	1.3	0.5	1.0	0	1.0	0	0.5	0	0	0.5	0.8



New York State Department of Transportation
Region 3
333 East Washington Street
Syracuse, NY 13202

File Name : SR 370 at John Glenn Blvd
Site Code :
Start Date : 10/9/2012
Page No : 3

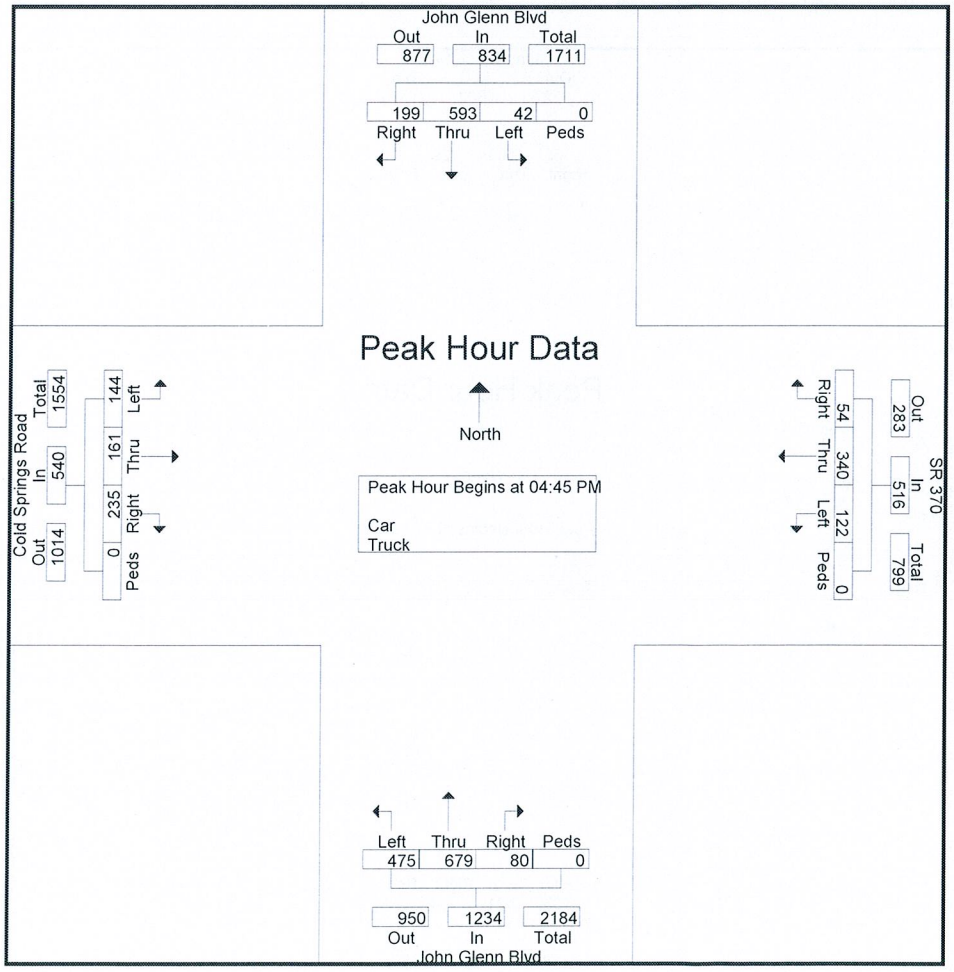
	John Glenn Blvd From North					SR 370 From East					John Glenn Blvd From South					Cold Springs Road From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	13	142	5	0	160	5	20	20	0	45	15	109	25	0	149	142	65	45	0	252	606
07:30 AM	24	156	8	0	188	10	25	21	0	56	21	143	33	0	197	106	88	44	0	238	679
07:45 AM	19	149	12	0	180	4	24	29	0	57	37	175	42	0	254	107	61	53	0	221	712
08:00 AM	9	121	4	0	134	8	15	21	0	44	21	94	33	0	148	110	52	37	0	199	525
Total Volume	65	568	29	0	662	27	84	91	0	202	94	521	133	0	748	465	266	179	0	910	2522
% App. Total	9.8	85.8	4.4	0		13.4	41.6	45	0		12.6	69.7	17.8	0		51.1	29.2	19.7	0		
PHF	.677	.910	.604	.000	.880	.675	.840	.784	.000	.886	.635	.744	.792	.000	.736	.819	.756	.844	.000	.903	.886



New York State Department of Transportation
Region 3
333 East Washington Street
Syracuse, NY 13202

File Name : SR 370 at John Glenn Blvd
Site Code :
Start Date : 10/9/2012
Page No : 5

	John Glenn Blvd From North					SR 370 From East					John Glenn Blvd From South					Cold Springs Road From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	41	146	13	0	200	14	90	29	0	133	26	172	102	0	300	58	49	39	0	146	779
05:00 PM	58	149	6	0	213	16	80	26	0	122	21	164	110	0	295	61	42	35	0	138	768
05:15 PM	62	157	7	0	226	9	77	30	0	116	17	198	142	0	357	53	38	38	0	129	828
05:30 PM	38	141	16	0	195	15	93	37	0	145	16	145	121	0	282	63	32	32	0	127	749
Total Volume	199	593	42	0	834	54	340	122	0	516	80	679	475	0	1234	235	161	144	0	540	3124
% App. Total	23.9	71.1	5	0		10.5	65.9	23.6	0		6.5	55	38.5	0		43.5	29.8	26.7	0		
PHF	.802	.944	.656	.000	.923	.844	.914	.824	.000	.890	.769	.857	.836	.000	.864	.933	.821	.923	.000	.925	.943



Syracuse Metropolitan Transportation Council
126 N. Salina Street
Syracuse, NY, 13202
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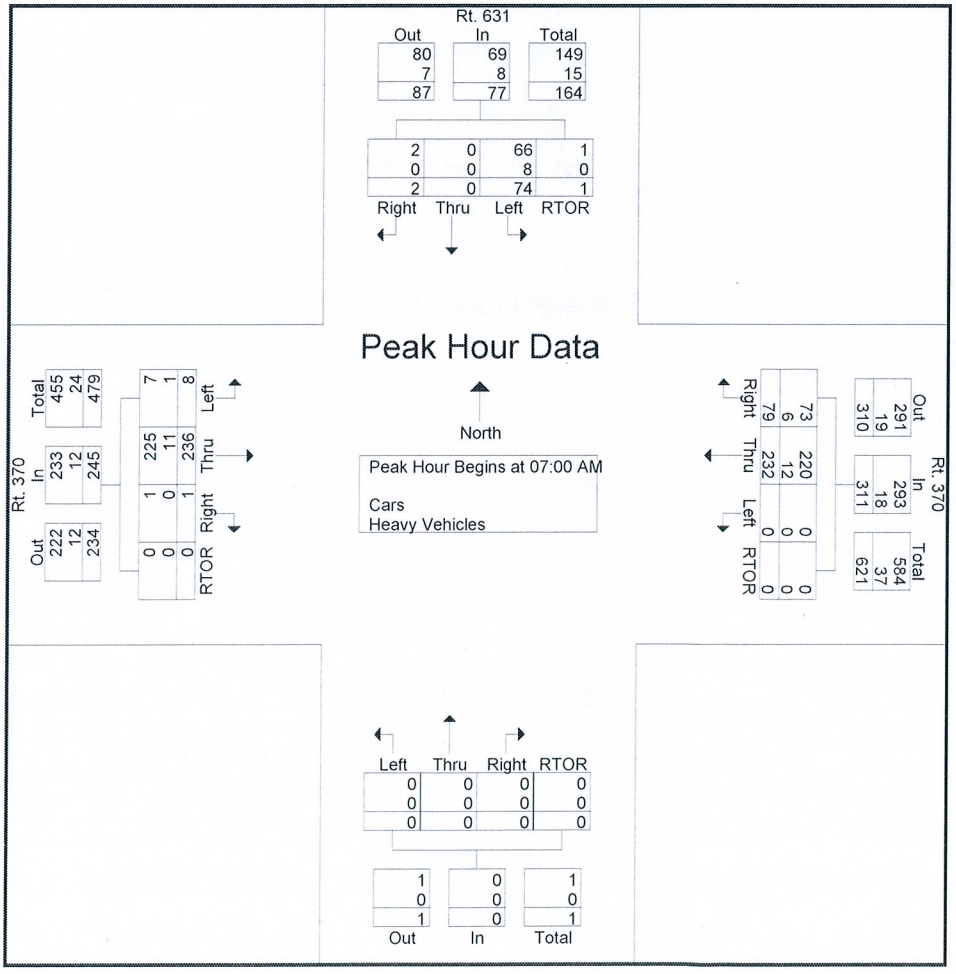
Village of Baldwinsville
Rt. 370 and Rt. 631
AF
Lysander Comprehensive Plan

File Name : Rt 370_Rt 631_06_19_14_Merged_AM-PM
Site Code : 06191402
Start Date : 6/19/2014
Page No : 3

	Rt. 370 Eastbound					Rt. 370 Westbound					Northbound					Rt. 631 Southbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	3	48	1	0	52	0	63	16	0	79	0	0	0	0	0	21	0	1	0	22	153
07:15 AM	3	60	0	0	63	0	**67**	21	0	**88**	0	0	0	0	0	**25**	0	1	**1**	**27**	**178**
07:30 AM	1	**76**	0	0	**77**	0	55	20	0	75	0	0	0	0	0	10	0	0	0	10	162
07:45 AM	1	52	0	0	53	0	47	**22**	0	69	0	0	0	0	0	18	0	0	0	18	140
Total Volume	8	236	1	0	245	0	232	79	0	311	0	0	0	0	0	74	0	2	1	77	633
% App. Total	3.3	96.3	0.4	0		0	74.6	25.4	0		0	0	0	0		96.1	0	2.6	1.3		
PHF	.667	.776	.250	.000	.795	.000	.866	.898	.000	.884	.000	.000	.000	.000	.000	.740	.000	.500	.250	.713	.889
Cars	7	225	1	0	233	0	220	73	0	293	0	0	0	0	0	66	0	2	1	69	595
% Cars	87.5	95.3	100	0	95.1	0	94.8	92.4	0	94.2	0	0	0	0	0	89.2	0	100	100	89.6	94.0
Heavy Vehicles																					
% Heavy Vehicles	12.5	4.7	0	0	4.9	0	5.2	7.6	0	5.8	0	0	0	0	0	10.8	0	0	0	10.4	6.0



Syracuse Metropolitan Transportation Council
126 N. Salina Street
Syracuse, NY, 13202
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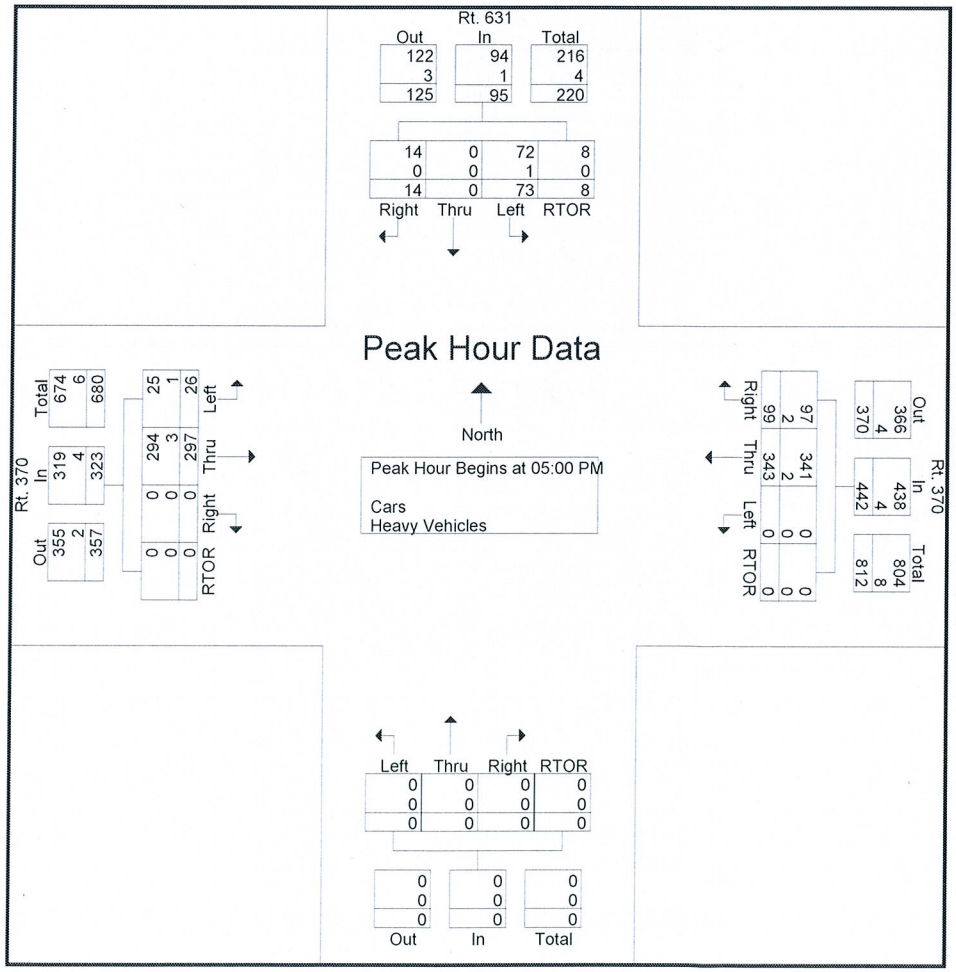
Village of Baldwinsville
Rt. 370 and Rt. 631
AF
Lysander Comprehensive Plan

File Name : Rt 370_Rt 631_06_19_14_Merged_AM-PM
Site Code : 06191402
Start Date : 6/19/2014
Page No : 4

	Rt. 370 Eastbound					Rt. 370 Westbound					Northbound					Rt. 631 Southbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	6	**97**	0	0	**103**	0	72	19	0	91	0	0	0	0	0	**19**	0	3	2	**24**	218
05:15 PM	3	61	0	0	64	0	88	24	0	112	0	0	0	0	0	19	0	2	2	23	199
05:30 PM	5	84	0	0	89	0	**98**	**28**	0	**126**	0	0	0	0	0	18	0	**5**	1	24	**239**
05:45 PM	**12**	55	0	0	67	0	85	28	0	113	0	0	0	0	0	17	0	4	**3**	24	204
Total Volume	26	297	0	0	323	0	343	99	0	442	0	0	0	0	0	73	0	14	8	95	860
% App. Total	8	92	0	0		0	77.6	22.4	0		0	0	0	0		76.8	0	14.7	8.4		
PHF	.542	.765	.000	.000	.784	.000	.875	.884	.000	.877	.000	.000	.000	.000	.000	.961	.000	.700	.667	.990	.900
Cars	25	294	0	0	319	0	341	97	0	438	0	0	0	0	0	72	0	14	8	94	851
% Cars	96.2	99.0	0	0	98.8	0	99.4	98.0	0	99.1	0	0	0	0	0	98.6	0	100	100	98.9	99.0
Heavy Vehicles																					
% Heavy Vehicles	3.8	1.0	0	0	1.2	0	0.6	2.0	0	0.9	0	0	0	0	0	1.4	0	0	0	1.1	1.0

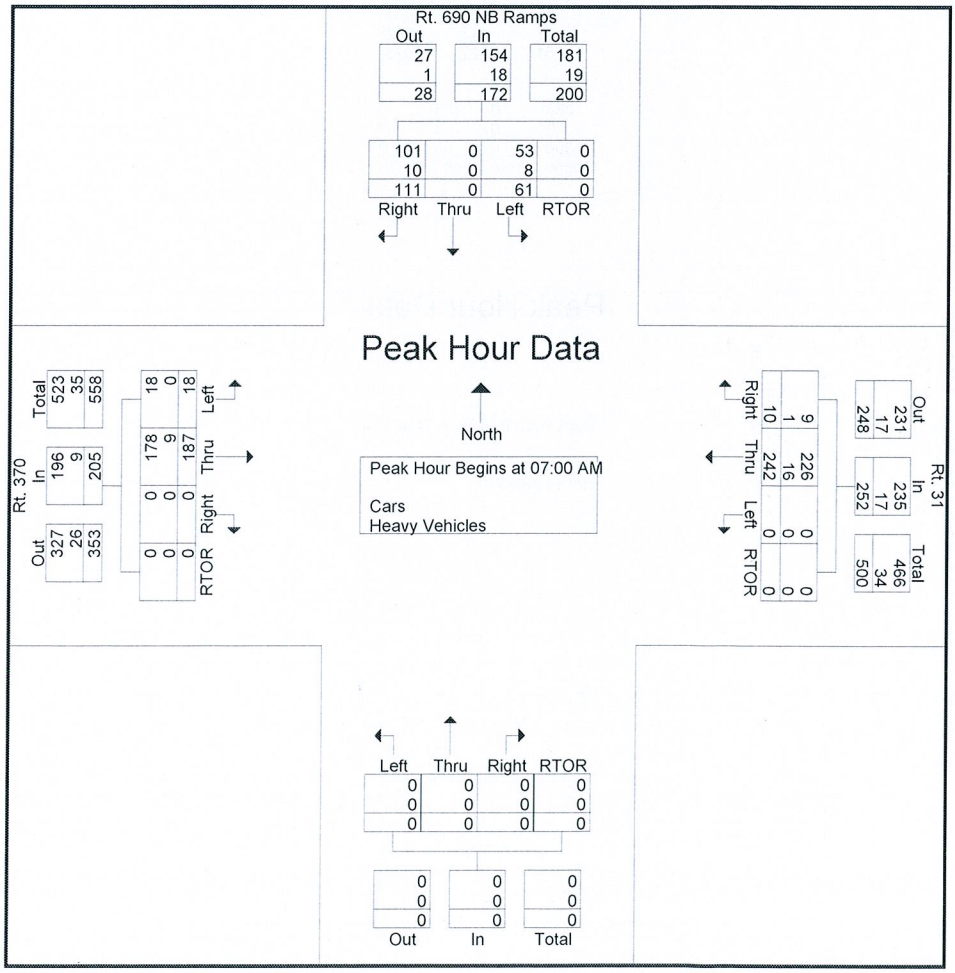


Syracuse Metropolitan Transportation Council
126 N. Salina Street
Syracuse, NY, 13202
www.smtcmpo.org

Town of Lysander
Rt. 370 & Rt. 690 NB Ramps
DA
Lysander Comprehensive Plan

File Name : Rt. 370_Rt. 690NB Ramps_06_19_14_Formatted
Site Code : 06191403
Start Date : 6/19/2014
Page No : 3

	Rt. 370 Eastbound					Rt. 31 Westbound					Northbound					Rt. 690 NB Ramps Southbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	**7**	48	0	0	**55**	0	53	1	0	54	0	0	0	0	0	13	0	21	0	34	143
07:15 AM	3	**51**	0	0	54	0	**89**	**3**	0	**92**	0	0	0	0	0	18	0	28	0	46	**192**
07:30 AM	6	49	0	0	55	0	46	3	0	49	0	0	0	0	0	11	0	26	0	37	141
07:45 AM	2	39	0	0	41	0	54	3	0	57	0	0	0	0	0	**19**	0	**36**	0	**55**	153
Total Volume	18	187	0	0	205	0	242	10	0	252	0	0	0	0	0	61	0	111	0	172	629
% App. Total	8.8	91.2	0	0		0	96	4	0		0	0	0	0		35.5	0	64.5	0		
PHF	.643	.917	.000	.000	.932	.000	.680	.833	.000	.685	.000	.000	.000	.000	.000	.803	.000	.771	.000	.782	.819
Cars	18	178	0	0	196	0	226	9	0	235	0	0	0	0	0	53	0	101	0	154	585
% Cars	100	95.2	0	0	95.6	0	93.4	90.0	0	93.3	0	0	0	0	0	86.9	0	91.0	0	89.5	93.0
Heavy Vehicles																					
% Heavy Vehicles	0	4.8	0	0	4.4	0	6.6	10.0	0	6.7	0	0	0	0	0	13.1	0	9.0	0	10.5	7.0



Syracuse Metropolitan Transportation Council
126 N. Salina Street
Syracuse, NY, 13202
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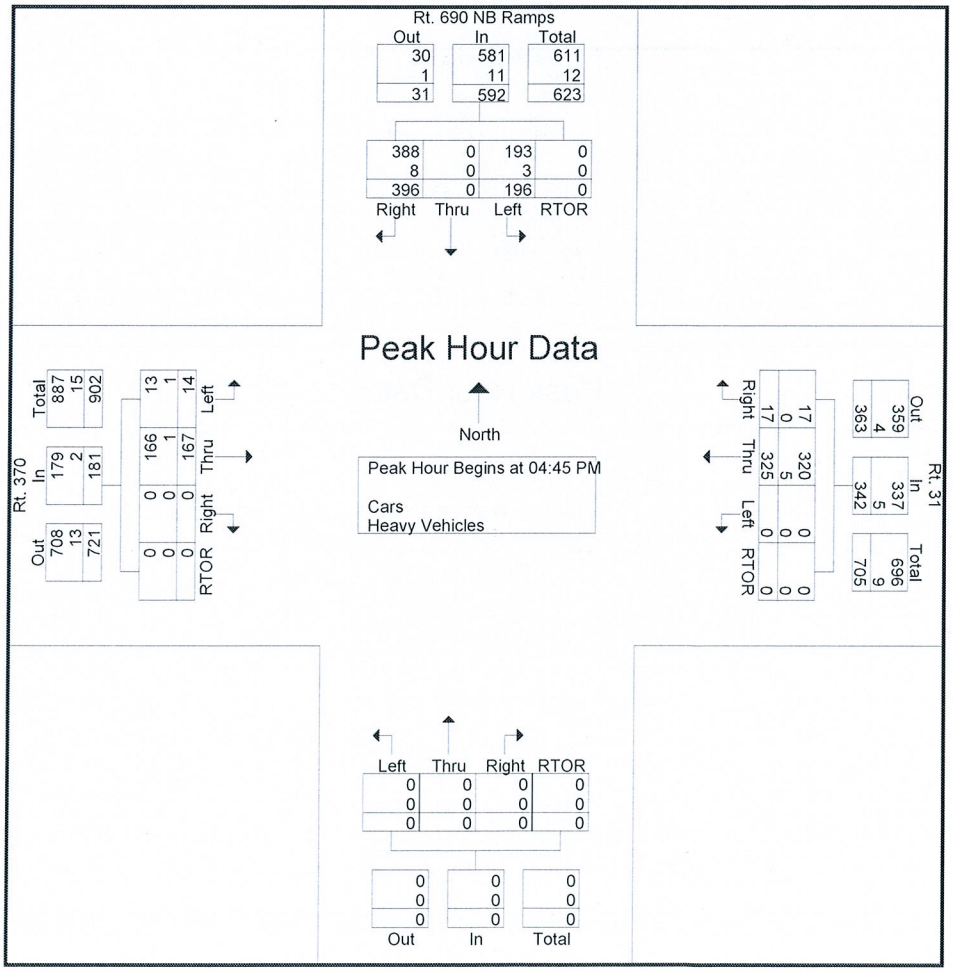
Town of Lysander
Rt. 370 & Rt. 690 NB Ramps
DA
Lysander Comprehensive Plan

File Name : Rt. 370_Rt. 690NB Ramps_06_19_14_Formatted
Site Code : 06191403
Start Date : 6/19/2014
Page No : 4

	Rt. 370 Eastbound					Rt. 31 Westbound					Northbound					Rt. 690 NB Ramps Southbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	3	**56**	0	0	**59**	0	77	**6**	0	83	0	0	0	0	0	49	0	95	0	144	286
05:00 PM	5	44	0	0	49	0	76	3	0	79	0	0	0	0	0	46	0	82	0	128	256
05:15 PM	**6**	36	0	0	42	0	**87**	5	0	**92**	0	0	0	0	0	41	0	101	0	142	276
05:30 PM	0	31	0	0	31	0	85	3	0	88	0	0	0	0	0	**60**	0	**118**	0	**178**	**297**
Total Volume	14	167	0	0	181	0	325	17	0	342	0	0	0	0	0	196	0	396	0	592	1115
% App. Total	7.7	92.3	0	0		0	95	5	0		0	0	0	0		33.1	0	66.9	0		
PHF	.583	.746	.000	.000	.767	.000	.934	.708	.000	.929	.000	.000	.000	.000	.000	.817	.000	.839	.000	.831	.939
Cars	13	166	0	0	179	0	320	17	0	337	0	0	0	0	0	193	0	388	0	581	1097
% Cars	92.9	99.4	0	0	98.9	0	98.5	100	0	98.5	0	0	0	0	0	98.5	0	98.0	0	98.1	98.4
Heavy Vehicles																					
% Heavy Vehicles	7.1	0.6	0	0	1.1	0	1.5	0	0	1.5	0	0	0	0	0	1.5	0	2.0	0	1.9	1.6



Syracuse Metropolitan Transportation Council
126 N. Salina Street
Syracuse, NY, 13202
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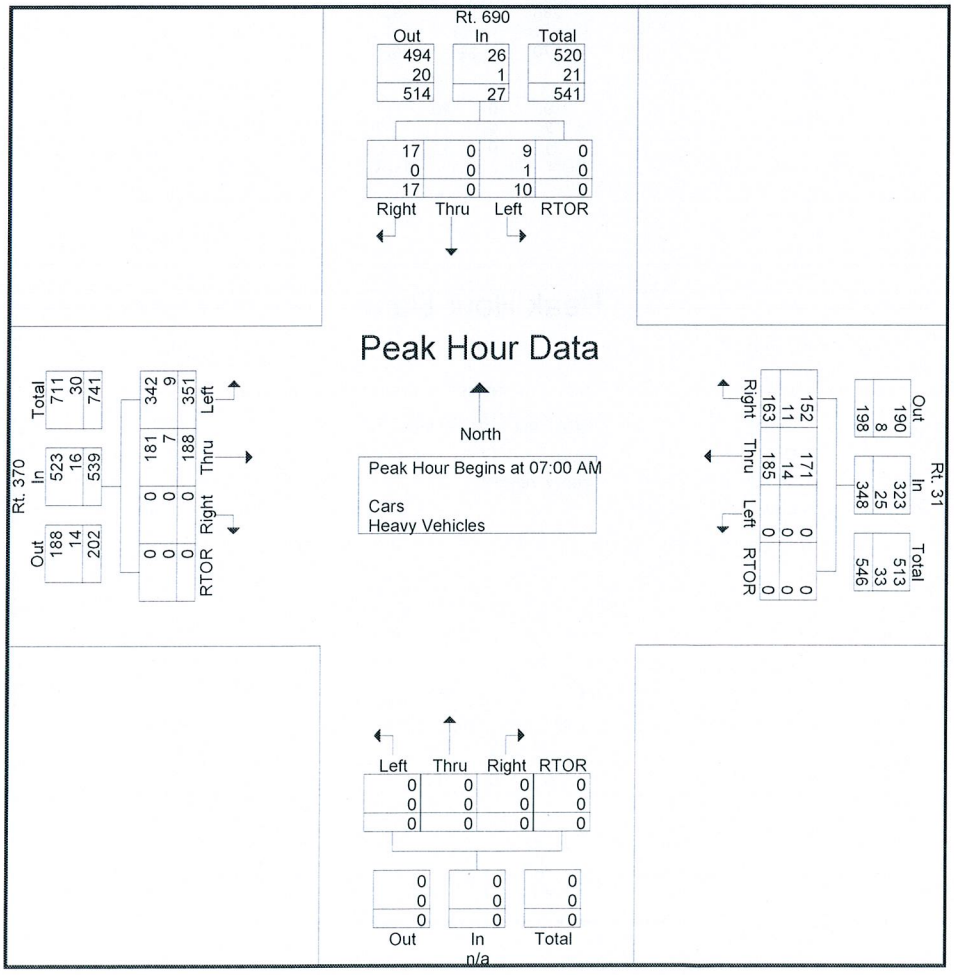
Town of Lysander
Rt. 690 SB Ramps & Rt. 370
KB
Lysander Comprehensive Plan

File Name : 690SB_ 370_06_19_14_Formatted
Site Code : 06191404
Start Date : 6/19/2014
Page No : 3

	Rt. 370 Eastbound					Rt. 31 Westbound					n/a Northbound					Rt. 690 Southbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	84	47	0	0	131	0	40	40	0	80	0	0	0	0	0	3	0	6	0	9	220
07:15 AM	**111**	**50**	0	0	**161**	0	**59**	**51**	0	**110**	0	0	0	0	0	2	0	**7**	0	9	**280**
07:30 AM	85	47	0	0	132	0	35	36	0	71	0	0	0	0	0	**5**	0	1	0	6	209
07:45 AM	71	44	0	0	115	0	51	36	0	87	0	0	0	0	0	0	0	3	0	3	205
Total Volume	351	188	0	0	539	0	185	163	0	348	0	0	0	0	0	10	0	17	0	27	914
% App. Total	65.1	34.9	0	0		0	53.2	46.8	0		0	0	0	0		37	0	63	0		
PHF	.791	.940	.000	.000	.837	.000	.784	.799	.000	.791	.000	.000	.000	.000	.000	.500	.000	.607	.000	.750	.816
Cars	342	181	0	0	523	0	171	152	0	323	0	0	0	0	0	9	0	17	0	26	872
% Cars	97.4	96.3	0	0	97.0	0	92.4	93.3	0	92.8	0	0	0	0	0	90.0	0	100	0	96.3	95.4
Heavy Vehicles																					
% Heavy Vehicles	2.6	3.7	0	0	3.0	0	7.6	6.7	0	7.2	0	0	0	0	0	10.0	0	0	0	3.7	4.6



Syracuse Metropolitan Transportation Council
126 N. Salina Street
Syracuse, NY, 13202
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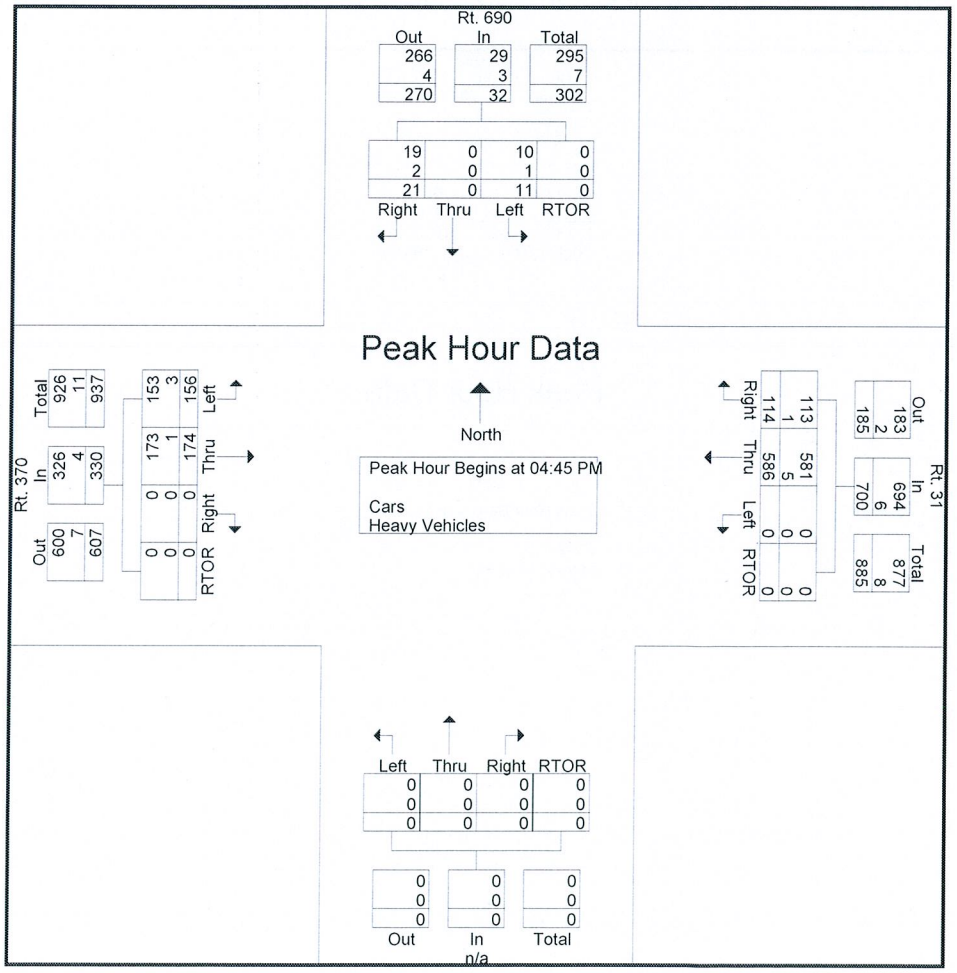
Town of Lysander
Rt. 690 SB Ramps & Rt. 370
KB
Lysander Comprehensive Plan

File Name : 690SB_ 370_06_19_14_Formatted
Site Code : 06191404
Start Date : 6/19/2014
Page No : 4

	Rt. 370 Eastbound					Rt. 31 Westbound					n/a Northbound					Rt. 690 Southbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	34	**53**	0	0	**87**	0	139	29	0	168	0	0	0	0	0	**4**	0	5	0	**9**	264
05:00 PM	39	45	0	0	84	0	128	26	0	154	0	0	0	0	0	1	0	**6**	0	7	245
05:15 PM	40	46	0	0	86	0	151	29	0	180	0	0	0	0	0	2	0	5	0	7	273
05:30 PM	**43**	30	0	0	73	0	**168**	**30**	0	**198**	0	0	0	0	0	4	0	5	0	9	**280**
Total Volume	156	174	0	0	330	0	586	114	0	700	0	0	0	0	0	11	0	21	0	32	1062
% App. Total	47.3	52.7	0	0		0	83.7	16.3	0		0	0	0	0		34.4	0	65.6	0		
PHF	.907	.821	.000	.000	.948	.000	.872	.950	.000	.884	.000	.000	.000	.000	.000	.688	.000	.875	.000	.889	.948
Cars	153	173	0	0	326	0	581	113	0	694	0	0	0	0	0	10	0	19	0	29	1049
% Cars	98.1	99.4	0	0	98.8	0	99.1	99.1	0	99.1	0	0	0	0	0	90.9	0	90.5	0	90.6	98.8
Heavy Vehicles																					
% Heavy Vehicles	1.9	0.6	0	0	1.2	0	0.9	0.9	0	0.9	0	0	0	0	0	9.1	0	9.5	0	9.4	1.2



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126 N. Salina Street
Syracuse, NY, 13202
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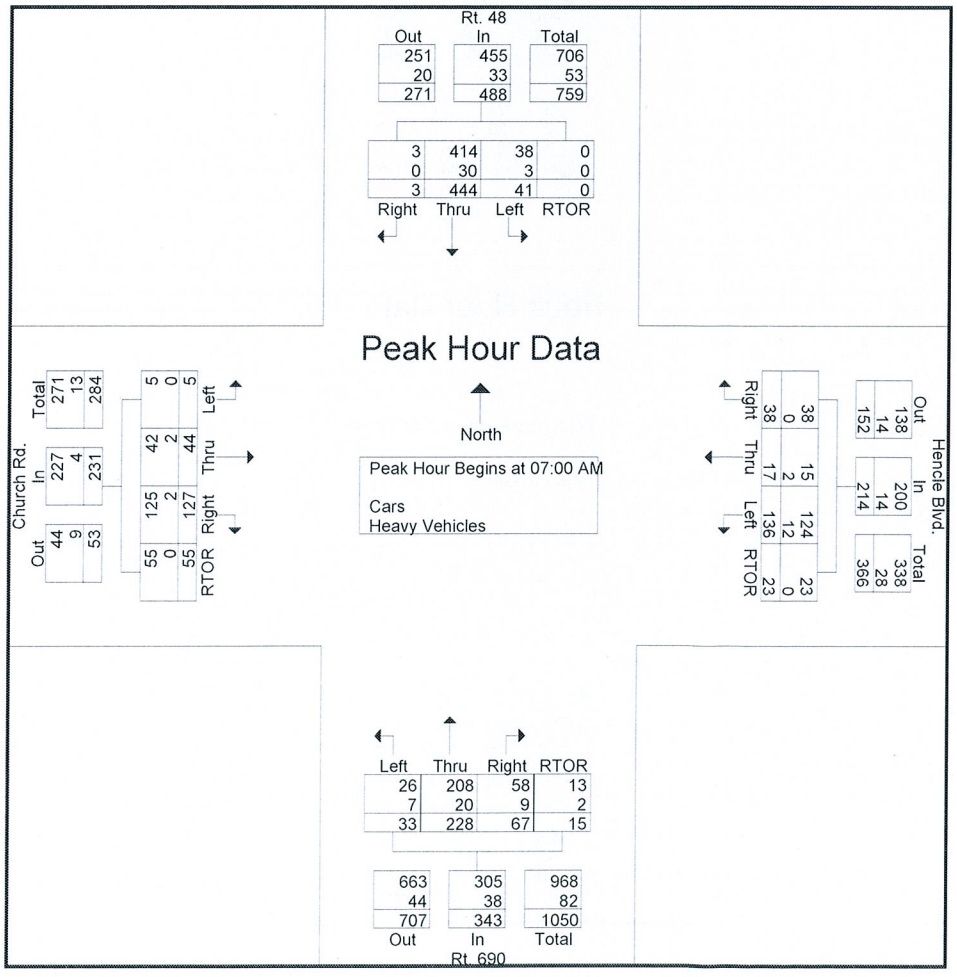
Town of Lysander
Rt. 690/Rt. 48 & Hencle Blvd./Church Rd.
KK
Lysander Comprehensive Plan

File Name : Rt 690_Rt 48_Church_Hencle_06_19_14_Formatted
Site Code : 06191401
Start Date : 6/19/2014
Page No : 3

	Church Rd. Eastbound					Hencle Blvd. Westbound					Rt. 690 Northbound					Rt. 48 Southbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	2	13	36	**16**	67	28	3	6	3	40	7	57	10	3	77	10	114	0	0	124	308
07:15 AM	0	**14**	**41**	16	**71**	40	**6**	**14**	**9**	**69**	**9**	56	9	3	77	**12**	112	**1**	0	125	**342**
07:30 AM	0	6	26	12	44	**42**	2	9	7	60	9	**68**	19	**7**	**103**	9	**125**	1	0	**135**	342
07:45 AM	**3**	11	24	11	49	26	6	9	4	45	8	47	**29**	2	86	10	93	1	0	104	284
Total Volume	5	44	127	55	231	136	17	38	23	214	33	228	67	15	343	41	444	3	0	488	1276
% App. Total	2.2	19	55	23.8		63.6	7.9	17.8	10.7		9.6	66.5	19.5	4.4		8.4	91	0.6	0		
PHF	.417	.786	.774	.859	.813	.810	.708	.679	.639	.775	.917	.838	.578	.536	.833	.854	.888	.750	.000	.904	.933
Cars	5	42	125	55	227	124	15	38	23	200	26	208	58	13	305	38	414	3	0	455	1187
% Cars	100	95.5	98.4	100	98.3	91.2	88.2	100	100	93.5	78.8	91.2	86.6	86.7	88.9	92.7	93.2	100	0	93.2	93.0
Heavy Vehicles																					
% Heavy Vehicles	0	4.5	1.6	0	1.7	8.8	11.8	0	0	6.5	21.2	8.8	13.4	13.3	11.1	7.3	6.8	0	0	6.8	7.0



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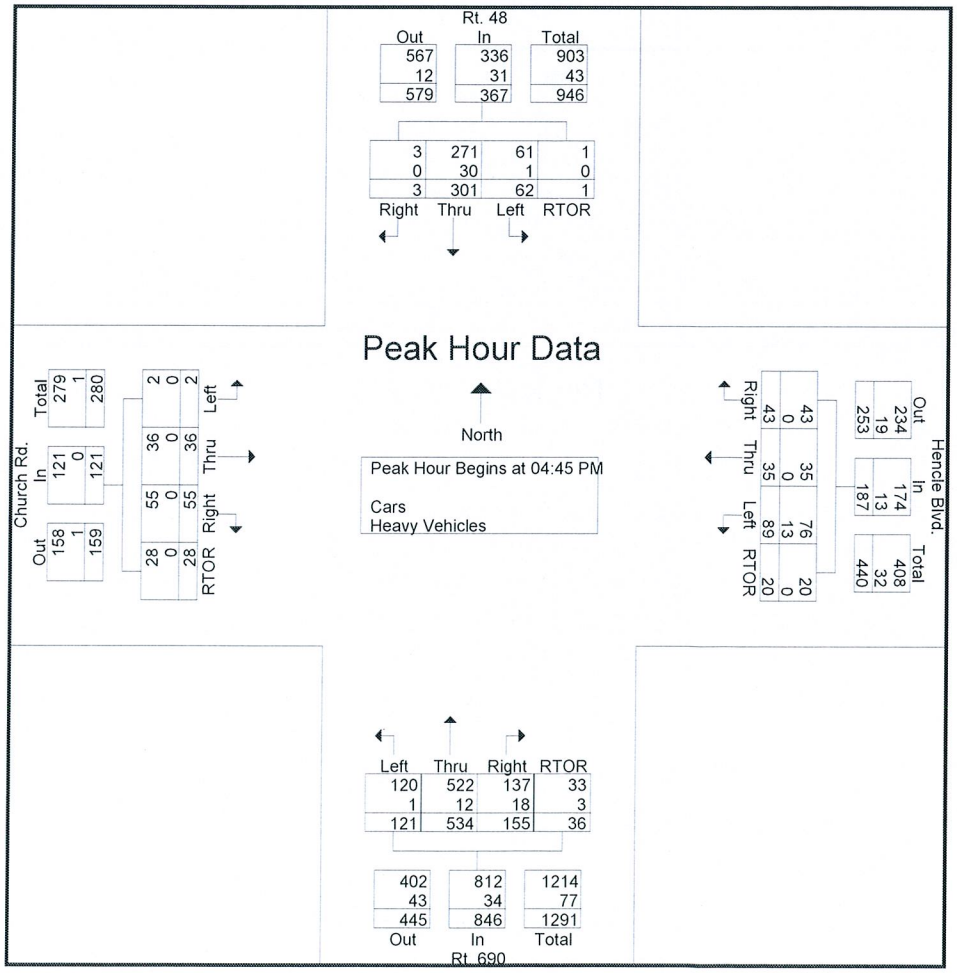
Town of Lysander
Rt. 690/Rt. 48 & Hencle Blvd./Church Rd.
KK
Lysander Comprehensive Plan

File Name : Rt 690_Rt 48_Church_Hencle_06_19_14_Formatted
Site Code : 06191401
Start Date : 6/19/2014
Page No : 4

	Church Rd. Eastbound					Hencle Blvd. Westbound					Rt. 690 Northbound					Rt. 48 Southbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	0	8	6	3	17	21	8	**15**	5	49	31	**159**	25	7	222	**18**	**84**	1	0	**103**	391
05:00 PM	0	9	16	8	33	23	**14**	9	5	**51**	24	127	41	**10**	202	14	71	0	0	85	371
05:15 PM	**1**	8	14	4	27	**24**	8	11	**6**	49	**40**	133	**48**	10	**231**	12	78	0	0	90	**397**
05:30 PM	1	**11**	**19**	**13**	**44**	21	5	8	4	38	26	115	41	9	191	18	68	**2**	**1**	89	362
Total Volume	2	36	55	28	121	89	35	43	20	187	121	534	155	36	846	62	301	3	1	367	1521
% App. Total	1.7	29.8	45.5	23.1		47.6	18.7	23	10.7		14.3	63.1	18.3	4.3		16.9	82	0.8	0.3		
PHF	.500	.818	.724	.538	.688	.927	.625	.717	.833	.917	.756	.840	.807	.900	.916	.861	.896	.375	.250	.891	.958
Cars	2	36	55	28	121	76	35	43	20	174	120	522	137	33	812	61	271	3	1	336	1443
% Cars	100	100	100	100	100	85.4	100	100	100	93.0	99.2	97.8	88.4	91.7	96.0	98.4	90.0	100	100	91.6	94.9
Heavy Vehicles																					
% Heavy Vehicles	0	0	0	0	0	14.6	0	0	0	7.0	0.8	2.2	11.6	8.3	4.0	1.6	10.0	0	0	8.4	5.1



Memorandum

TO: Town of Lysander Comprehensive Plan Update Committee

FROM: Meghan Vitale, SMTC

DATE: January 7, 2015

RE: Accident data analysis (Technical Memorandum #2)

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The SMTC has examined data from the NYSDOT's Accident Location Identification System (ALIS) database for locations within the Town of Lysander for the most recent three-year period available (December 1, 2010, to November 30, 2013). The findings of this analysis are summarized below.

Intersection accidents

The ALIS database was queried to identify the intersections with the greatest number of total accidents over the most recent three-year period available. All intersections within the Town of Lysander plus the Route 370/John Glenn Boulevard intersection in the Town of Salina were included in this query. The analysis classified "intersection" events as those that occurred within 10 meters (32.8 feet) of the center of an intersection. Table 1 lists the five locations with the greatest number of total accidents.

Table 1: Intersection accident summary (top 5 locations by total accidents), December 1, 2010, to November 30, 2013

Intersection	Location	Total accidents	Motor vehicles only	With bicycles	With pedestrians	Other collisions*
Route 370/John Glenn Blvd	Salina	40	36	0	0	4
Route 370/Route 48	Lysander	24	20	0	0	4
Route 31/Albert Palmer Ln/Lock St	Lysander	20	17	0	1	2
Route 31/River Rd	Lysander	14	13	0	0	1
Route 370/Hicks Rd/Hayes Rd	Lysander	12	12	0	0	0

*Other collisions may include, for example, collisions with fixed object (such as a sign post), animal, or ditch.
Source: NYSDOT ALIS database
~~~~~~

The Route 370/John Glenn Boulevard intersection had the greatest number of total accidents over the three-year period examined, with a total of 40 accidents. The NYSDOT has investigated this location and recommended the installation of an exclusive eastbound right-turn lane on Route 370 and a second northbound left-turn lane on John Glenn Boulevard (with receiving lane on Route 370 westbound). This safety improvement project is currently included in the SMTC's Transportation Improvement Program to start the scoping phase in Federal Fiscal Year 2014.

Within the Town of Lysander, the Route 31/Route 48 intersection and the Route 31/Albert Palmer Lane/Lock Street intersections had the highest number of accidents, with totals of 24 accidents and 20 accidents, respectively. In all cases, the majority of accidents were multiple-vehicle collisions.

Recent turning movement counts are available at Route 370/Route 48, Route 31/River Road, and Route 370/Hicks Road/Hayes Road (see Technical Memorandum #1). No traffic count data are available for the Route 31/Albert Palmer Lane/Lock Street intersection. Accident rates were calculated for the three intersections with turning movement count data. The accident rate calculations assumed that the PM peak hour volume entering the intersection from the turning movement counts represents 10 percent of the total Average Daily Entering Vehicles at that intersection. Accident rates for each of these intersections and a comparison to the statewide average rate for similar intersection types are summarized in Table 2.

Table 2: Accident rates for selected intersections

Intersection	Total accidents[1]	Total PM peak hour entering vehicles[2]	Average Daily Entering Vehicles	Accident rate (accidents per million entering vehicles)	Statewide average accident rate[3]
Route 370/Route 48	24	2,060	20,600	1.06	0.21
Route 31/River Rd	14	2,460	24,600	0.52	0.21
Route 370/Hicks Rd/Hayes Rd	12	1,010	10,100	1.09	0.26

[1]Source: NYSDOT ALIS database
[2]Source: SMTC, 2014; GTS Consulting, 2012
[3]Source: NYSDOT

As shown in Table 2, the calculated accident rates at the Route 370/Route 48, Route 31/River Road, and Route 370/Hicks Road/Hayes Road intersections all exceed the published statewide average rate for similar type intersections.

ALIS identifies the collision type for multiple vehicle collisions. Collision types include, for example, head-on, rear-end, right-angle, overtaking, left-turn, right-turn, etc. Rear-end collisions were the most common collision type for all locations listed in Table 1 except the Route 370/Hicks Road/Hayes Road intersection (right-angle collisions were the most common type at

that location). At the Route 31/River Road intersection, 11 of the 13 total multiple-vehicle collisions were rear-end collisions.

There were no fatalities at intersections within the town during the time period examined.

Non-intersection accidents

The ALIS database was queried to identify the road segments with the highest accident rates (accidents per million vehicle miles traveled) over the most recent three-year period available. The accident rates were determined using the Average Annual Daily Traffic volumes (AADT) available from the SMTC's travel demand model. Segments less than 0.1 mile in length and segments with three or fewer total accidents over the three-year period examined were eliminated from this analysis. Table 3 lists the five road segments in the Town of Lysander with the highest accident rates over the period from December 1, 2010, to November 30, 2013.

Table 3: Road segment accident summary (top 5 segments by accident rate), December 1, 2010, to November 30, 2013

Road segment	Total non-intersection accidents[1]	Length (mi.)	Average Annual Daily Traffic (vehicles per day)[2]	Accident rate (accidents per million vehicle miles traveled)	Statewide average accident rate[3]
River Rd. from Doyle Rd. to Patchett Rd.	17	1.23	650	19.55	2.25
Smokey Hollow Rd. from Hencle Blvd. to 0.5 mi. north of Hencle Blvd.	5	0.51	550	16.28	2.24
Church Rd., from Prine Rd. to Wheaton Rd.	6	0.81	510	13.19	2.24
Lamson Rd. from Plainville Rd. to Prine Rd.	9	1.42	510	11.46	2.24
Route 370/Route 31 from Oswego St. to Virginia St.	27	0.14	17,070	10.32	2.48

[1]Source: NYSDOT ALIS database
[2]Source: SMTC travel demand model
[3]Source: NYSDOT

For all of the segments listed in Table 3, the majority of accidents on each segment were classified as property damage only or "non-reportable" (meaning property damage of less than $1,000, with no injuries or fatalities). There were no fatalities on these segments.

Notably, only 2 of the 17 collisions on the River Road segment were collisions with another motor vehicle; the remaining 15 incidents consisted of collisions with deer or roadside elements such as a ditch, utility pole, tree, or other fixed object and the majority of these occurred under dark (night/early morning) conditions.

Of the 27 collisions that occurred on Route 370/Route 31 (East Genesee Street) between Route 48 and Virginia Street in the Village of Baldwinsville, 21 were collisions with other motor vehicles, one was a collision with a bicyclist, and five were collisions with roadside objects. The collisions with other motor vehicles were mostly rear-end or right-angle collisions.

SMTC also queried the ALIS database for road segments with the greatest total number of accidents over the three-year period (as opposed to the highest accident rates). The segment with the highest total number of accidents over the three-year period examined was Route 48 from Kellogg Road to Lamson Road, with a total of 31 accidents. However, the calculated rate for this location is 2.02 acc/MVM, which is below the statewide average for similar facilities. The road segment with the second highest total number of accidents was Route 370/Route 31 from Route 48 to Virginia Street in the Village of Baldwinsville, which is included in Table 3 due to the relatively high accident rate for this short segment of road.

There were two fatal accidents on road segments within the town, each with one fatality, during the three-year period examined. One of these collisions occurred on Route 690 southbound, just south of Hencle Boulevard. The other fatality was a collision with a pedestrian that occurred on Route 370/Route 31 between Route 690 and Dexter Parkway.

Pedestrian and bicycle accidents

Within the three-year period examined, there were 8 pedestrian accidents (including one fatality) and 9 bicycle accidents in the Town of Lysander. None of the pedestrian or bicycle accidents occurred at the same location more than once. Most of the pedestrian and bicycle accidents occurred within the Village of Baldwinsville, which likely has more pedestrian and bicycle activity than other areas of the town. Figure 1 shows the location of pedestrian and bicycle accidents.

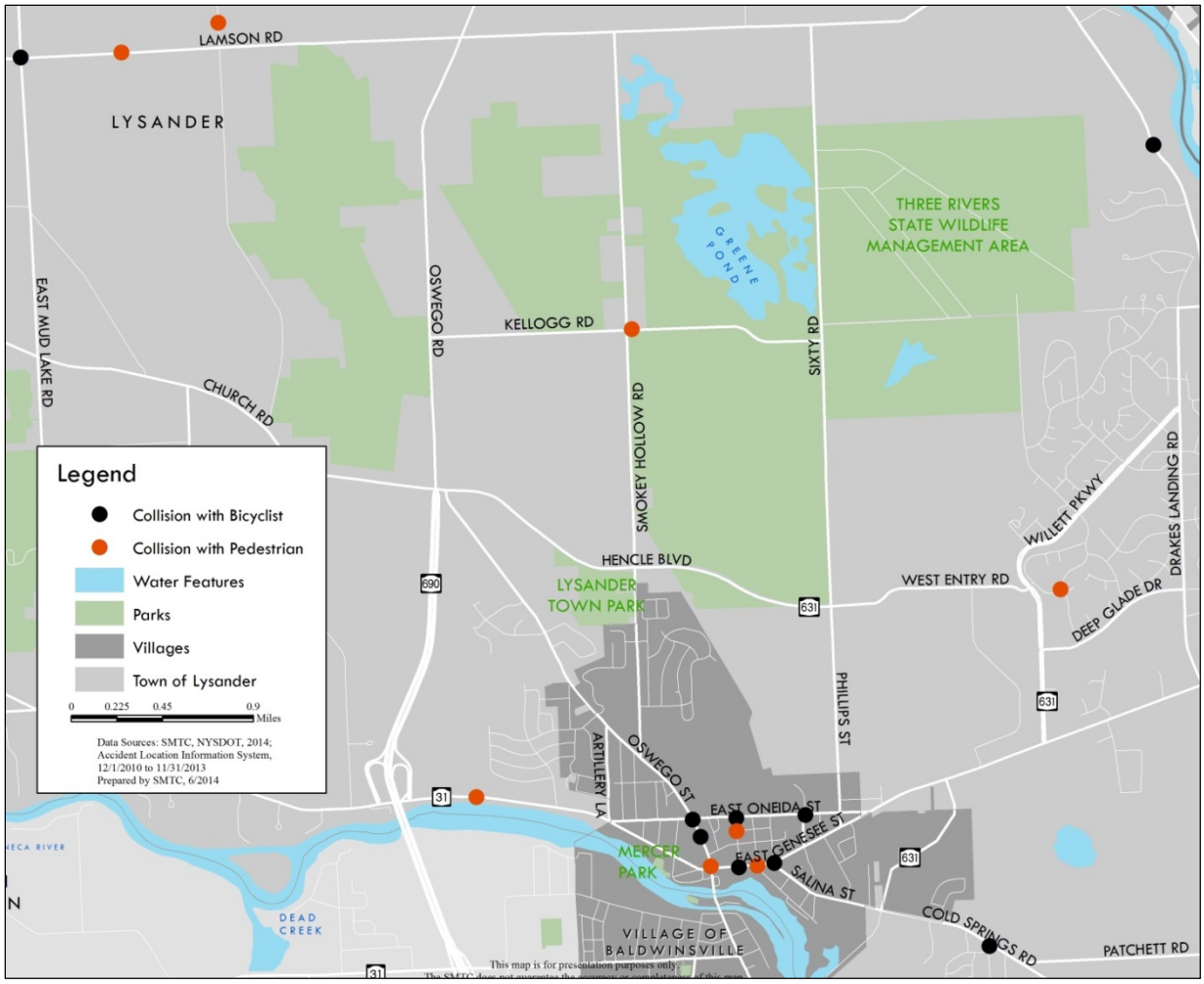


Figure 1: Pedestrian and bicycle accidents within the Town of Lysander (December 1, 2010, to November 30, 2013) Source: NYSDOT ALIS database

Summary

The SMTC has examined the available accident data for intersections and road segments, including bicycle and pedestrian accidents, in the Town of Lysander for the most recent three-year period available (December 1, 2010, to November 30, 2013). Accident data were obtained from the NYSDOT's Accident Location Identification System (ALIS). As detailed in this memo, accident rates at the Route 370/Route 48, Route 31/River Road, and Route 370/Hicks Road/Hayes Road intersections all exceed the published statewide average rate for similar type intersections. Rear-end or right-angle collisions were the most common collision type at these locations. The segment of River Road from Doyle Road to Patchett Road had the highest accident rate within the town, and the vast majority of collisions on this segment were collisions with deer or roadside objects. Pedestrian and bicyclist accidents mostly occurred within the Village of Baldwinsville, which likely has more pedestrian and bicycle activity than other parts of the town. None of the pedestrian or bicycle accidents occurred at the same location more than once.

Memorandum

TO: Town of Lysander Comprehensive Plan Update Committee

FROM: Meghan Vitale, SMTC

DATE: October 14, 2014

RE: Existing conditions assessment (Technical Memorandum #3)

~~~~~~

The SMTC has reviewed the outputs from our travel demand model for various intersections and segments within the Town of Lysander and conducted capacity analysis for selected intersections based on recent traffic count data. This memo summarizes the work conducted and our findings.

Review of volume-to-capacity ratios from SMTC's travel demand model

SMTC staff reviewed the volume-to-capacity ratios from the 2014 Existing Conditions travel demand model for road segments and intersections throughout the Town of Lysander.

The volume-to-capacity ratio varies from 0.0 to 1.0 and is a comparison of the current or projected traffic on a road or entering an intersection (in this case, the modeled volume) to the maximum traffic volume that the segment or intersection can reasonably be expected to accommodate. Values closer to 1.0 indicate that a segment or intersection is approaching capacity and operational issues may occur (drivers will experience longer delays). The volume-to-capacity ratio is abbreviated "V/C".

Figures 1 and 2 show the V/C ratio for model links (segments) and nodes (intersections) within the Cold Springs Peninsula area of the Town of Lysander and part of the adjoining towns for the AM and PM peak hours, respectively. Both figures show the 2014 Existing Conditions based on the SMTC travel demand model outputs.
~~~~~~

CHURCH RD
HENCLE BLVD
OSWEGO RD
NY690
SMOKEY HOLLOW RD
SIXTY RD
WILLETT PKWY
WEST ENTRY RD
DEEP GLADE DR
DRAKES LANDING RD
BELGIUM RD - RT31
BELGIUM RD
OLD ROUTE 57
GASKIN RD
SOULE RD
DUNHAM RD
MOTT RD
ARTILLERY LA
DEXTER PKWY
WEST GENESEE RD
WEST GENESEE ST
OSWEGO ST
EAST ONEIDA ST
PHILLIPS ST
EAST GENESEE ST
BYPASS
SALINA ST
DOWNER ST
PATCHETT RD
HICKS RD
RIVER RD
COLD SPRINGS RD
WEST DEAD CREEK RD
WEST SORRELL HILL RD
EAST SORRELL HILL RD
CANTON ST
ELLSWORTH RD
SYRACUSE ST
MAPLE RD
STATE FAIR BLVD
VILLAGE BLVD NORTH
IDLEWOOD BLVD
VAN BUREN RD
OBRIEN RD
JOHN GLENN BLVD
LONG BRANCH RD
JONES RD
CONNORS RD
NORTH BRICKY
FARREL

Segment V/C Ratio
- 0.00 to 0.26 (LOS A)
- 0.26 to 0.43 (LOS B)
- 0.43 to 0.62 (LOS C)
- 0.62 to 0.82 (LOS D)
- 0.82 to 1.00 (LOS E)
- 1.00 to 2.00 (LOS F)
- Other

Directional Volume

1,500 1,000 500

Intersection V/C Ratio
- 0.00 to 0.70
- 0.70 to 0.90
- 0.90 +

0 .25 .5 .75

Miles

Figure 1 - Lysander 2014 AM Peak Period Conditions

SMTC Travel Demand Model Outputs

CHURCH RD
HENCLE BLVD
OSWEGO RD
NY690
SMOKEY HOLLOW RD
SIXTY RD
WILLETT PKWY
WEST ENTRY RD
DEEP GLADE DR
DRAKES LANDING RD
BELGIUM RD - RT31
BELGIUM RD
OLD ROUTE 57
GASKIN RD
SOULE RD
DUNHAM RD
MOTT RD
ARTILLERY LA
DEXTER PKWY
PHILLIPS ST
WEST GENESEE RD
WEST GENESEE ST
OSWEGO ST
EAST ONEIDA ST
EAST GENESEE ST
BYPASS
SALINA ST
PATCHETT RD
HICKS RD
RIVER RD
COLD SPRINGS RD
DOWNER ST
WEST DEAD CREEK RD
WEST SORRELL HILL RD
EAST SORRELL HILL RD
CANTON ST
SYRACUSE ST
MAPLE RD
STATE FAIR BLVD
ELLSWORTH RD
VAN BUREN RD
VILLAGE BLVD NORTH
IDLEWOOD BLVD
O'BRIEN RD
JOHN GLENN BLVD
LONG BRANCH RD
CONNORS RD
NORTH BRICKY
JONES RD
ELM CRE
NEW Y

Segment V/C Ratio
- 0.00 to 0.26 (LOS A)
- 0.26 to 0.43 (LOS B)
- 0.43 to 0.62 (LOS C)
- 0.62 to 0.82 (LOS D)
- 0.82 to 1.00 (LOS E)
- 1.00 to 1.80 (LOS F)
- Other

Directional Volume

1,500 1,000 500

Intersection V/C Ratio
- 0.00 to 0.70
- 0.70 to 0.90
- 0.90 +

0 .25 .5 .75

Miles

Figure 2 - Lysander 2014 PM Peak Period Conditions

SMTC Travel Demand Model Outputs

All modeled intersections within the town except one have existing V/C ratios below 0.70, indicating good operation conditions. The intersection of Route 31and Route 370 (East Genesee Street and Salina Street in the Village of Baldwinsville) is the only intersection with a V/C ratio between 0.7 and 0.9 (and only during the PM peak hour), indicating that drivers likely experience longer delays at this intersection.

The vast majority of modeled road segments show very good existing conditions (V/C ratios less than 0.43, or likely a level of service [LOS] A or B). The segments with higher V/C ratios include Route 31 near Willet Parkway, Route 370 between Hicks Road and River Road, Route 48 south of Route 31/370, and Route 31/370 east of Route 48. However, the V/C ratios for these segments are still relatively low (less than 0.82) indicating that these roads generally experience acceptable operating conditions (LOS C or D). The only road segment that appears to be approaching capacity is Route 370 between River Road and John Glenn Boulevard in the PM peak hour, which carries nearly 1,500 vehicles in the PM peak hour based on the travel demand model. Although Route 31 near the boundary with the Town of Clay carries the highest traffic volume in the town (even more than Route 690), this segment has two travel lanes in each direction and, therefore, has a higher capacity than Route 370.

Existing conditions intersection capacity analysis

SMTC also conducted capacity analysis at selected intersections to gain more detailed understanding of existing traffic operations at these locations.

Technical Memorandum #1 (August 4, 2014) summarized all of the recent turning movement counts that were conducted by the SMTC, the NYSDOT, and consultants. SMTC staff conducted turning movement counts at five intersections, and conducted a capacity analysis for each of these intersections under AM and PM peak hour conditions. The capacity analysis was conducted using Synchro 7 software. The resulting LOS and delay information is summarized in Table 1 and Table 2 for signalized and unsignalized intersections, respectively. Tables 1 and 2 also include level of service information from the "Timber Banks with YMCA Traffic Assessment – Response to NYSDOT Comments" (GTS Consulting, March 2013) for an additional four intersections. Attachment A contains the reports from Synchro for the five intersections analyzed by the SMTC.

Table 1: Summary of Existing Conditions Capacity Analysis, Signalized Intersections

Intersection		**AM peak hour**	**PM peak hour**	
Approach	Movement	LOS (delay)	LOS (delay)	**Source**
Route 690 / Hencle Boulevard		**B (16)**	**B (15)**	SMTC
Eastbound	Left/through/right	B (14)	B (19)	
Westbound	Left/through	C (23)	C (24)	
	Right	B (13)	B (18)	
Northbound	Left	C (28)	C (24)	
	Through	B (13)	B (11)	
	Right	B (12)	A (9)	
Southbound	Left	C (27)	C (23)	
	Through	B (15)	B (12)	
	Right	B (12)	B (10)	
Route 370 / Route 48		**B (15)**	**B (18)**	SMTC
Eastbound	Left/through	C (27)	D (38)	
	Right	C (43)	C (32)	
Westbound	Left	B (13)	B (17)	
	Through/right	A (7)	A (10)	
Northbound	Left/through	C (22)	C (28)	
	Right	A (6)	A (7)	
Southbound	Left/through/right	C (22)	C (24)	
Route 370 / Route 631		**A (7)**	**A (7)**	SMTC
Eastbound	Left	A (5)	A (5)	
	Through	A (6)	A (7)	
Westbound	Through	A (6)	A (8)	
	Right	A (2)	A (3)	
Southbound	Left	B (15)	B (12)	
	Right	B (13)	B (11)	
Route 31 / River Road		**C (22)**	**C (27)**	GTS
Eastbound	Left	D (43)	D (43)	
	Through	C (21)	C (30)	
	Right	A (5)	A (7)	
Westbound	Left	D (45)	E (57)	
	Through/right	B (14)	B (19)	
Northbound	Left	C (22)	C (28)	
	Through	D (38)	D (37)	
	Right	C (25)	C (22)	
Southbound	Left	C (29)	C (24)	
	Through/Right	D (36)	C (33)	

LOS = Level of service. Delay is the average delay per vehicle, in seconds.
Note: Bold text indicates the overall LOS and average delay for a signalized intersection.
Source: SMTC, 2014; "Timber Banks with YMCA Traffic Assessment – Response to NYSDOT Comments" by GTS Consulting, March 2013.

Table 2: Summary of Existing Conditions Capacity Analysis, Unsignalized Intersections

Intersection Approach	Movement	**AM peak hour** LOS (delay)	**PM peak hour** LOS (delay)	**Source**
Route 370 / Route 690 SB ramps				SMTC
Eastbound	Left	B (10)	B (10)	
Southbound	Left/right	C (23)	C (20)	
Route 370 / Route 690 NB ramps				SMTC
Eastbound	Left	A (8)	A (8)	
Southbound	Left	B (15)	C (21)	
	Right	B (12)	C (21)	
Route 370 / Hicks Road / Hayes Road				GTS
Eastbound	Left/through/right	A (1)	A (1)	
Westbound	Left/through/right	A (1)	A (1)	
Northbound	Left/through/right	B (15)	C (21)	
Southbound	Left/through/right	F (69)	D (35)	
Route 370 / River Road				GTS
Eastbound	Left/through	A (1)	A (1)	
Westbound	Through/right	A (0)	A (0)	
Southbound	Left/right	F (95)	F (193)	
River Road / Patchett Road / Hicks Road				GTS
Northbound	Left/through/right	A (5)	A (6)	
Northwestbound	Left/through/right	A (4)	A (5)	
Southbound	Left/through/right	A (7)	A (9)	
Eastbound	Left/through/right	A (5)	A (6)	
Westbound	Left/through/right	A (3)	A (3)	

LOS = Level of service. Delay is the average delay per vehicle, in seconds.
Note: For unsignalized intersections, the HCM methodology does not provide an overall LOS or delay.
Source: SMTC, 2014; "Timber Banks with YMCA Traffic Assessment – Response to NYSDOT Comments" by GTS Consulting, March 2013.

The signalized intersections that were examined all operate at good overall levels of service with minimal to moderate delay. Most individual movements operate at LOS A or B with minimal delay. The Route 31/River Road intersection operates with the greatest delay of the intersections considered, although it still operates at an overall LOS C. Some individual movements at this intersection experience greater delay, operating at LOS D or E. The westbound left turn movement from Route 31 to River Road experiences the highest delay – at 57 seconds and LOS E – of any of the movements examined for signalized intersections.

In 2013, the NYSDOT conducted capacity analysis for the Route 370/John Glenn Boulevard intersection in the Town of Salina. This analysis indicates that the intersection operates at an

overall LOS F during the AM peak hour and LOS E during the PM peak hour, with the following individual movements operating at LOS F:

- Route 370 eastbound left (AM)
- Route 370 eastbound through/right (AM and PM)
- Route 370 westbound through/right (PM)
- John Glenn Boulevard northbound left (PM)

Turning movements at the unsignalized intersections that were examined mostly operate at LOS A, B, or C, indicating relatively good operations with little delay to drivers. The exceptions are the southbound movements from River Road to Route 370 and the southbound movements from Hicks Road to Route 370, which operate at LOS D or F. At both of these locations, there is a single southbound lane from which to make all turning movements onto Route 370 and most of the southbound traffic on Hicks Road and River Road turns left onto Route 370. The southbound left turn volume at both of these intersections is approximately 200 vehicles in the AM peak hour and 100 vehicles in the PM peak hour, and the volumes on Route 370 vary from around 700 vehicles per hour to over 1,300 vehicles per hour. The result is that drivers trying to turn onto Route 370 from Hicks Road or River Road may experience delay, on average, of 1 to 3 minutes. According to the "Timber Banks with YMCA Traffic Assessment – Response to NYSDOT Comments" (GTS Consulting, March 2013), both of these locations may be considered for a signal warrant analysis once the reduced initial build out levels for Timber Banks are reached.

Summary

In general, the results of our intersection capacity analysis and review of the travel demand model outputs for segments and intersections indicate that traffic flows quite well in the Town of Lysander under the existing conditions. There are a few isolated areas of moderate concern such as Routes 31/370 and Route 48 near the "four corners" in Baldwinsville and Route 31 near Willett Parkway which may begin to approach capacity in the future, depending on the level of development and amount of new trips that are generated. There are also a few places that currently experience "poor" levels of service. These locations include the unsignalized intersections of Hicks Road and River Road with Route 370, the westbound left-turn movement from Route 31 onto River Road, and Route 370 between River Road and John Glenn Boulevard. Future development plans should be mindful of the potential for additional traffic at these locations, which would exacerbate the existing concerns. Mitigation measures, such as new traffic signals, may need to be considered as part of future development plans; however, this would require additional technical analysis and coordination with the NYSDOT. The cost of installing and maintaining a traffic signal – or any transportation infrastructure that increases capacity – should be weighed against the likely benefit to all residents and the potential to induce additional demand in the future.

Attachment A

Synchro reports

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	44	127	158	17	38	33	228	67	41	444	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.0	6.0	5.0	7.0	7.0	5.0	7.0	7.0
Lane Util. Factor		1.00			1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.90			1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00			0.96	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1667			1663	1615	1492	3312	1429	1687	3374	1615
Flt Permitted		0.99			0.65	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1649			1138	1615	1492	3312	1429	1687	3374	1615
Peak-hour factor, PHF	0.81	0.81	0.81	0.78	0.78	0.78	0.83	0.83	0.83	0.90	0.90	0.90
Adj. Flow (vph)	6	54	157	203	22	49	40	275	81	46	493	3
RTOR Reduction (vph)	0	114	0	0	0	35	0	0	55	0	0	2
Lane Group Flow (vph)	0	103	0	0	225	14	40	275	26	46	493	1
Heavy Vehicles (%)	0%	5%	2%	9%	12%	0%	21%	9%	13%	7%	7%	0%
Turn Type	Perm			Perm		Perm	Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8			2			6
Actuated Green, G (s)		13.9			13.9	13.9	2.5	15.9	15.9	2.5	15.9	15.9
Effective Green, g (s)		13.9			13.9	13.9	2.5	15.9	15.9	2.5	15.9	15.9
Actuated g/C Ratio		0.28			0.28	0.28	0.05	0.32	0.32	0.05	0.32	0.32
Clearance Time (s)		6.0			6.0	6.0	5.0	7.0	7.0	5.0	7.0	7.0
Vehicle Extension (s)		2.0			2.0	2.0	2.0	5.7	5.7	2.0	5.7	5.7
Lane Grp Cap (vph)		456			314	446	74	1047	452	84	1067	511
v/s Ratio Prot							0.03	0.08		c0.03	c0.15	
v/s Ratio Perm		0.06			c0.20	0.01			0.02			0.00
v/c Ratio		0.23			0.72	0.03	0.54	0.26	0.06	0.55	0.46	0.00
Uniform Delay, d1		14.1			16.4	13.3	23.3	12.8	12.0	23.3	13.8	11.8
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.1			6.4	0.0	4.3	0.3	0.1	3.9	0.8	0.0
Delay (s)		14.1			22.8	13.3	27.6	13.2	12.1	27.2	14.6	11.8
Level of Service		B			C	B	C	B	B	C	B	B
Approach Delay (s)		14.1			21.1			14.4			15.7	
Approach LOS		B			C			B			B	

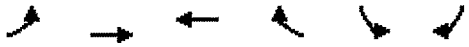
Intersection Summary			
HCM Average Control Delay	16.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	50.3	Sum of lost time (s)	18.0
Intersection Capacity Utilization	55.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	351	188	185	163	10	17
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.84	0.84	0.79	0.79	0.75	0.75
Hourly flow rate (vph)	418	224	234	206	13	23
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	441				1294	234
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	441				1294	234
tC, single (s)	4.1				6.5	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.6	3.3
p0 queue free %	62				88	97
cM capacity (veh/h)	1114				108	810

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	418	224	234	206	36
Volume Left	418	0	0	0	13
Volume Right	0	0	0	206	23
cSH	1114	1700	1700	1700	238
Volume to Capacity	0.38	0.13	0.14	0.12	0.15
Queue Length 95th (ft)	44	0	0	0	13
Control Delay (s)	10.2	0.0	0.0	0.0	22.8
Lane LOS	B				C
Approach Delay (s)	6.6		0.0		22.8
Approach LOS					C

Intersection Summary			
Average Delay	4.5		
Intersection Capacity Utilization	42.5%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	18	187	242	10	61	111
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.93	0.93	0.69	0.69	0.78	0.78
Hourly flow rate (vph)	19	201	351	14	78	142
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	365				591	351
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	365				591	351
tC, single (s)	4.1				6.5	6.3
tC, 2 stage (s)						
tF (s)	2.2				3.6	3.4
p0 queue free %	98				82	79
cM capacity (veh/h)	1204				445	677

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	SB 2
Volume Total	19	201	351	14	78	142
Volume Left	19	0	0	0	78	0
Volume Right	0	0	0	14	0	142
cSH	1204	1700	1700	1700	445	677
Volume to Capacity	0.02	0.12	0.21	0.01	0.18	0.21
Queue Length 95th (ft)	1	0	0	0	16	20
Control Delay (s)	8.0	0.0	0.0	0.0	14.8	11.7
Lane LOS	A				B	B
Approach Delay (s)	0.7		0.0		12.8	
Approach LOS					B	

Intersection Summary			
Average Delay	3.7		
Intersection Capacity Utilization	26.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	4	187	86	436	134	28	43	130	432	3	179	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	10	12	11	13	12	12	13	12	16	12
Total Lost time (s)		5.0	5.0	5.0	5.0			5.5	5.5		5.5	
Lane Util. Factor		1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frpb, ped/bikes		1.00	0.98	1.00	1.00			1.00	1.00		1.00	
Flpb, ped/bikes		1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frt		1.00	0.85	1.00	0.97			1.00	0.85		1.00	
Flt Protected		1.00	1.00	0.95	1.00			0.99	1.00		1.00	
Satd. Flow (prot)		1774	1276	1735	1674			1546	1636		1733	
Flt Permitted		0.99	1.00	0.40	1.00			0.87	1.00		1.00	
Satd. Flow (perm)		1763	1276	735	1674			1368	1636		1726	
Peak-hour factor, PHF	0.95	0.95	0.95	0.85	0.85	0.85	0.89	0.89	0.89	0.77	0.77	0.77
Adj. Flow (vph)	4	197	91	513	158	33	48	146	485	4	232	9
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	201	91	513	191	0	0	194	485	0	245	0
Confl. Peds. (#/hr)	1		1	1		1	4		2	2		4
Heavy Vehicles (%)	25%	3%	4%	4%	7%	4%	7%	26%	2%	0%	10%	43%
Parking (#/hr)			0								0	
Turn Type	Perm		Perm	pm+pt			pm+pt		pt+ov	Perm		
Protected Phases		2		1	6		7	4	4 1		8	
Permitted Phases	2		2	6			4			8		
Actuated Green, G (s)		13.9	13.9	38.9	38.9			19.1	44.6		19.1	
Effective Green, g (s)		13.9	13.9	38.9	38.9			19.1	44.6		19.1	
Actuated g/C Ratio		0.20	0.20	0.57	0.57			0.28	0.65		0.28	
Clearance Time (s)		5.0	5.0	5.0	5.0			5.5			5.5	
Vehicle Extension (s)		3.0	3.0	3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)		358	259	709	951			381	1065		481	
v/s Ratio Prot				c0.21	0.11				c0.30			
v/s Ratio Perm		0.11	0.07	c0.20				0.14			0.14	
v/c Ratio		0.56	0.35	0.72	0.20			0.51	0.46		0.51	
Uniform Delay, d1		24.6	23.4	9.7	7.2			20.8	5.9		20.8	
Progression Factor		1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2		2.0	0.8	3.7	0.1			1.1	0.3		0.9	
Delay (s)		26.6	24.3	13.4	7.3			21.8	6.2		21.6	
Level of Service		C	C	B	A			C	A		C	
Approach Delay (s)		25.9			11.7			10.7			21.6	
Approach LOS		C			B			B			C	

Intersection Summary			
HCM Average Control Delay	14.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	68.5	Sum of lost time (s)	10.5
Intersection Capacity Utilization	76.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	8	236	232	79	74	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	10	12	12	12
Total Lost time (s)	6.5	6.5	6.5	6.0	6.0	6.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1597	1810	1689	1495	1626	1615
Flt Permitted	0.60	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1003	1810	1689	1495	1626	1615
Peak-hour factor, PHF	0.80	0.80	0.88	0.88	0.71	0.71
Adj. Flow (vph)	10	295	264	90	104	3
RTOR Reduction (vph)	0	0	0	0	0	3
Lane Group Flow (vph)	10	295	264	90	104	0
Heavy Vehicles (%)	13%	5%	5%	8%	11%	0%
Turn Type	Perm			pm+ov		Perm
Protected Phases		6	2	4	4	
Permitted Phases	6			2		4
Actuated Green, G (s)	18.8	18.8	18.8	24.2	5.4	5.4
Effective Green, g (s)	18.8	18.8	18.8	24.2	5.4	5.4
Actuated g/C Ratio	0.51	0.51	0.51	0.66	0.15	0.15
Clearance Time (s)	6.5	6.5	6.5	6.0	6.0	6.0
Vehicle Extension (s)	6.0	6.0	6.0	2.0	2.0	2.0
Lane Grp Cap (vph)	514	927	865	1230	239	238
v/s Ratio Prot		c0.16	0.16	0.01	c0.06	
v/s Ratio Perm	0.01			0.05		0.00
v/c Ratio	0.02	0.32	0.31	0.07	0.44	0.00
Uniform Delay, d1	4.4	5.2	5.2	2.2	14.3	13.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.0	0.6	0.6	0.0	0.5	0.0
Delay (s)	4.5	5.8	5.7	2.2	14.7	13.4
Level of Service	A	A	A	A	B	B
Approach Delay (s)		5.7	4.9		14.7	
Approach LOS		A	A		B	

Intersection Summary			
HCM Average Control Delay	6.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.34		
Actuated Cycle Length (s)	36.7	Sum of lost time (s)	12.5
Intersection Capacity Utilization	30.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	2	36	55	89	35	43	121	534	155	62	301	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.0	6.0	5.0	7.0	7.0	5.0	7.0	7.0
Lane Util. Factor		1.00			1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.92			1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00			0.97	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1746			1656	1615	1787	3539	1442	1770	3282	1615
Flt Permitted		0.99			0.81	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1728			1382	1615	1787	3539	1442	1770	3282	1615
Peak-hour factor, PHF	0.69	0.69	0.69	0.92	0.92	0.92	0.92	0.92	0.92	0.89	0.89	0.89
Adj. Flow (vph)	3	52	80	97	38	47	132	580	168	70	338	3
RTOR Reduction (vph)	0	67	0	0	0	40	0	0	100	0	0	2
Lane Group Flow (vph)	0	68	0	0	135	7	132	580	68	70	338	1
Heavy Vehicles (%)	0%	0%	0%	15%	0%	0%	1%	2%	12%	2%	10%	0%
Turn Type	Perm			Perm		Perm	Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8			2			6
Actuated Green, G (s)		7.9			7.9	7.9	6.1	20.3	20.3	4.0	18.2	18.2
Effective Green, g (s)		7.9			7.9	7.9	6.1	20.3	20.3	4.0	18.2	18.2
Actuated g/C Ratio		0.16			0.16	0.16	0.12	0.40	0.40	0.08	0.36	0.36
Clearance Time (s)		6.0			6.0	6.0	5.0	7.0	7.0	5.0	7.0	7.0
Vehicle Extension (s)		2.0			2.0	2.0	2.0	5.7	5.7	2.0	5.7	5.7
Lane Grp Cap (vph)		272			217	254	217	1431	583	141	1190	586
v/s Ratio Prot							c0.07	c0.16		0.04	0.10	
v/s Ratio Perm		0.04			c0.10	0.00			0.05			0.00
v/c Ratio		0.25			0.62	0.03	0.61	0.41	0.12	0.50	0.28	0.00
Uniform Delay, d1		18.5			19.8	17.9	20.9	10.7	9.3	22.1	11.4	10.2
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.2			4.0	0.0	3.3	0.5	0.2	1.0	0.3	0.0
Delay (s)		18.7			23.7	17.9	24.2	11.1	9.6	23.1	11.7	10.2
Level of Service		B			C	B	C	B	A	C	B	B
Approach Delay (s)		18.7			22.2			12.8			13.6	
Approach LOS		B			C			B			B	

Intersection Summary			
HCM Average Control Delay	14.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	50.2	Sum of lost time (s)	11.0
Intersection Capacity Utilization	47.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	156	174	586	114	11	21
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.88	0.88	0.89	0.89
Hourly flow rate (vph)	164	183	666	130	12	24
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	795				1177	666
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	795				1177	666
tC, single (s)	4.1				6.5	6.3
tC, 2 stage (s)						
tF (s)	2.2				3.6	3.4
p0 queue free %	80				92	95
cM capacity (veh/h)	826				164	446

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	164	183	666	130	36
Volume Left	164	0	0	0	12
Volume Right	0	0	0	130	24
cSH	826	1700	1700	1700	280
Volume to Capacity	0.20	0.11	0.39	0.08	0.13
Queue Length 95th (ft)	18	0	0	0	11
Control Delay (s)	10.4	0.0	0.0	0.0	19.7
Lane LOS	B				C
Approach Delay (s)	4.9		0.0		19.7
Approach LOS					C

Intersection Summary			
Average Delay	2.1		
Intersection Capacity Utilization	52.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	14	167	325	17	196	396
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.77	0.77	0.93	0.93	0.83	0.83
Hourly flow rate (vph)	18	217	349	18	236	477
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	368				603	349
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	368				603	349
tC, single (s)	4.2				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.3				3.5	3.3
p0 queue free %	98				48	31
cM capacity (veh/h)	1164				455	694

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	SB 2
Volume Total	18	217	349	18	236	477
Volume Left	18	0	0	0	236	0
Volume Right	0	0	0	18	0	477
cSH	1164	1700	1700	1700	455	694
Volume to Capacity	0.02	0.13	0.21	0.01	0.52	0.69
Queue Length 95th (ft)	1	0	0	0	73	137
Control Delay (s)	8.1	0.0	0.0	0.0	21.1	20.8
Lane LOS	A				C	C
Approach Delay (s)	0.6		0.0		20.9	
Approach LOS					C	

Intersection Summary			
Average Delay	11.4		
Intersection Capacity Utilization	48.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	4	200	84	519	182	45	80	183	576	1	184	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	10	12	11	13	12	12	13	12	16	12
Total Lost time (s)		5.0	5.0	5.0	5.0			5.5	5.5		5.5	
Lane Util. Factor		1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frpb, ped/bikes		1.00	0.96	1.00	0.99			1.00	1.00		1.00	
Flpb, ped/bikes		1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frt		1.00	0.85	1.00	0.97			1.00	0.85		1.00	
Flt Protected		1.00	1.00	0.95	1.00			0.99	1.00		1.00	
Satd. Flow (prot)		1799	1307	1801	1742			1850	1652		1911	
Flt Permitted		0.99	1.00	0.33	1.00			0.79	1.00		1.00	
Satd. Flow (perm)		1789	1307	618	1742			1488	1652		1909	
Peak-hour factor, PHF	0.91	0.91	0.91	0.93	0.93	0.93	0.94	0.94	0.94	0.82	0.82	0.82
Adj. Flow (vph)	4	220	92	558	196	48	85	195	613	1	224	6
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	224	92	558	244	0	0	280	613	0	231	0
Confl. Peds. (#/hr)	6		8	6		8	6		11	11		6
Heavy Vehicles (%)	0%	2%	0%	0%	2%	0%	1%	1%	1%	0%	1%	0%
Parking (#/hr)			0								0	
Turn Type	Perm		Perm	pm+pt			pm+pt		pt+ov	Perm		
Protected Phases		2		1	6		7	4	4 1		8	
Permitted Phases	2		2	6			4			8		
Actuated Green, G (s)		16.2	16.2	49.5	49.5			26.8	60.6		26.8	
Effective Green, g (s)		16.2	16.2	49.5	49.5			26.8	60.6		26.8	
Actuated g/C Ratio		0.19	0.19	0.57	0.57			0.31	0.70		0.31	
Clearance Time (s)		5.0	5.0	5.0	5.0			5.5			5.5	
Vehicle Extension (s)		3.0	3.0	3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)		334	244	738	993			459	1153		589	
v/s Ratio Prot				c0.25	0.14				0.37			
v/s Ratio Perm		0.13	0.07	c0.18				c0.19			0.12	
v/c Ratio		0.67	0.38	0.76	0.25			0.61	0.53		0.39	
Uniform Delay, d1		32.8	30.9	12.7	9.3			25.5	6.3		23.6	
Progression Factor		1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2		5.2	1.0	4.4	0.1			2.4	0.5		0.4	
Delay (s)		38.0	31.9	17.2	9.5			27.9	6.8		24.0	
Level of Service		D	C	B	A			C	A		C	
Approach Delay (s)		36.2			14.8			13.4			24.0	
Approach LOS		D			B			B			C	

Intersection Summary				
HCM Average Control Delay	18.2	HCM Level of Service	B	
HCM Volume to Capacity ratio	0.69			
Actuated Cycle Length (s)	86.8	Sum of lost time (s)	10.5	
Intersection Capacity Utilization	85.9%	ICU Level of Service	E	
Analysis Period (min)	15			
c Critical Lane Group				

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	26	297	343	99	73	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	10	12	12	12
Total Lost time (s)	6.5	6.5	6.5	6.0	6.0	6.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1736	1881	1756	1583	1787	1615
Flt Permitted	0.53	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	971	1881	1756	1583	1787	1615
Peak-hour factor, PHF	0.78	0.78	0.88	0.88	0.99	0.99
Adj. Flow (vph)	33	381	390	112	74	14
RTOR Reduction (vph)	0	0	0	0	0	12
Lane Group Flow (vph)	33	381	390	112	74	2
Heavy Vehicles (%)	4%	1%	1%	2%	1%	0%
Turn Type	Perm			pm+ov		Perm
Protected Phases		6	2	4	4	
Permitted Phases	6			2		4
Actuated Green, G (s)	13.0	13.0	13.0	17.6	4.6	4.6
Effective Green, g (s)	13.0	13.0	13.0	17.6	4.6	4.6
Actuated g/C Ratio	0.43	0.43	0.43	0.58	0.15	0.15
Clearance Time (s)	6.5	6.5	6.5	6.0	6.0	6.0
Vehicle Extension (s)	6.0	6.0	6.0	2.0	2.0	2.0
Lane Grp Cap (vph)	419	812	758	1241	273	247
v/s Ratio Prot		0.20	c0.22	0.01	c0.04	
v/s Ratio Perm	0.03			0.06		0.00
v/c Ratio	0.08	0.47	0.51	0.09	0.27	0.01
Uniform Delay, d1	5.0	6.1	6.2	2.7	11.3	10.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.2	1.2	1.6	0.0	0.2	0.0
Delay (s)	5.3	7.3	7.8	2.8	11.5	10.8
Level of Service	A	A	A	A	B	B
Approach Delay (s)		7.1	6.7		11.4	
Approach LOS		A	A		B	

Intersection Summary			
HCM Average Control Delay	7.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	30.1	Sum of lost time (s)	12.5
Intersection Capacity Utilization	37.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Memorandum

TO: Town of Lysander Comprehensive Plan Update Committee

FROM: Meghan Vitale, SMTC

DATE: November 7, 2014

RE: Future conditions assessment (Technical Memorandum #4)

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The SMTC has reviewed the outputs from our travel demand model for the anticipated 2050 Future Base conditions and an alternative that includes some intersection modifications within the Town of Lysander. This memo summarizes the work conducted and our findings.

Anticipated future build scenario – 2050 Future Base conditions

The travel demand model uses the number of households and the number of jobs within a given Transportation Analysis Zone (TAZ) as the primary inputs to determine future traffic volumes on road segments. (TAZs are geographic units within the travel demand model, often similar to a Census Tract, that are assigned certain characteristics such as a number of households and a number of jobs.) The SMTC relied upon published data sources such as the decennial Census for the household and employment inputs to the 2014 Existing Conditions model. SMTC staff then used projections from a variety of data sources, as well as discussions with municipal economic development and planning staff, to arrive at the 2050 Future Base household and employment projections. SMTC staff and members of the Town of Lysander Comprehensive Plan Update Committee reviewed the 2050 Future Base household and employment growth assumptions within the SMTC's travel demand model prior to beginning this work, and SMTC made some adjustments to previous assumptions based on input from the Committee.

Table 1 shows the total current and anticipated future household and employment data for the Town of Lysander, as included in the SMTC's travel demand model. Figure 1 shows the households data and Figure 2 shows the employment data for zones within the town.

Table 1: Household and employment inputs to SMTC travel demand model, Town of Lysander

	2014	2050	Change	Percent change
Households	8,551	10,472	1,921	22 %
Employment (jobs)	5,918	8,198	2,280	39 %
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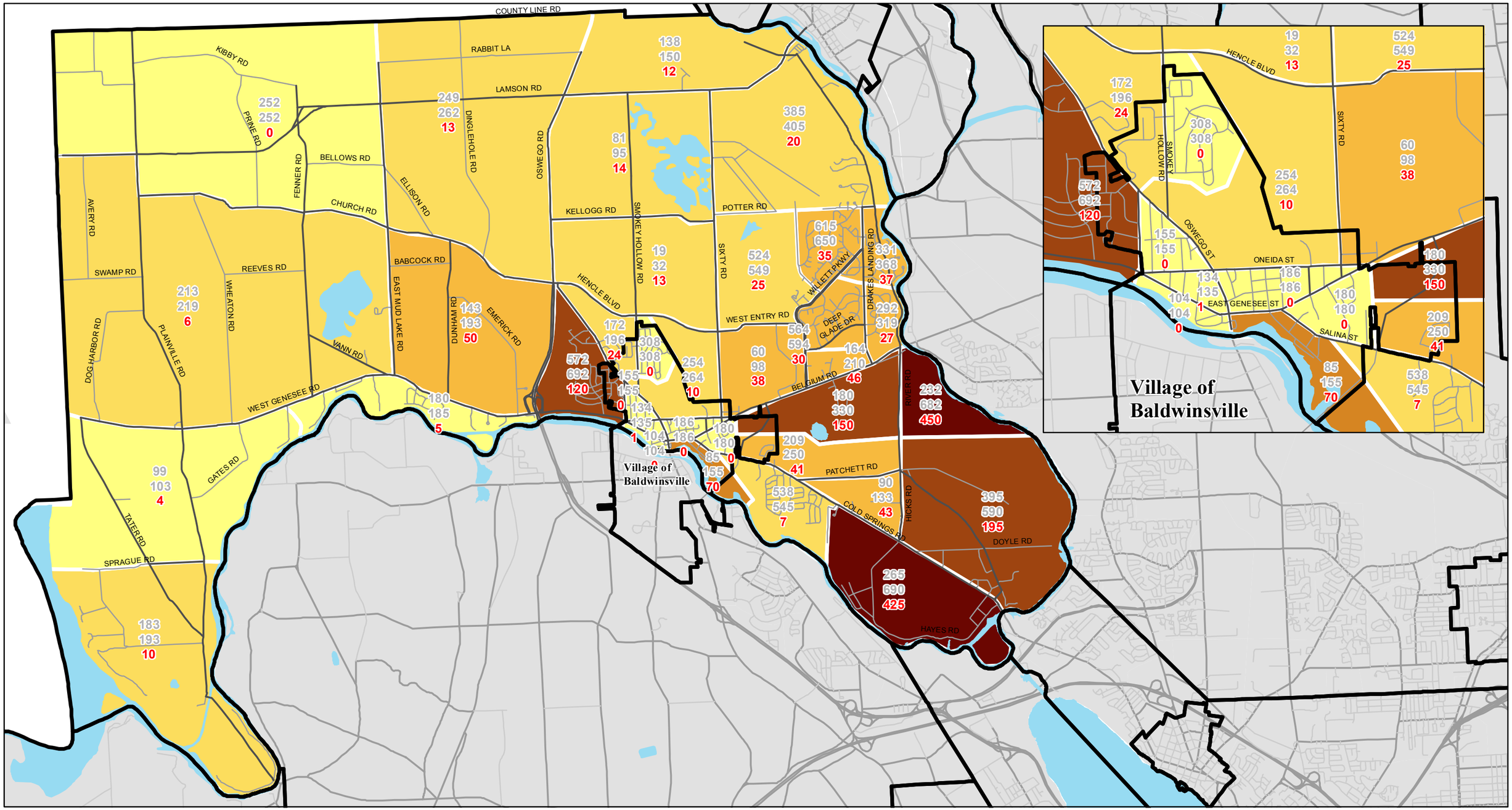

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0 0.5 1 2 Miles

Data Sources: SMTC, NYSDOT, 2014
Prepared by SMTC, 10/2014

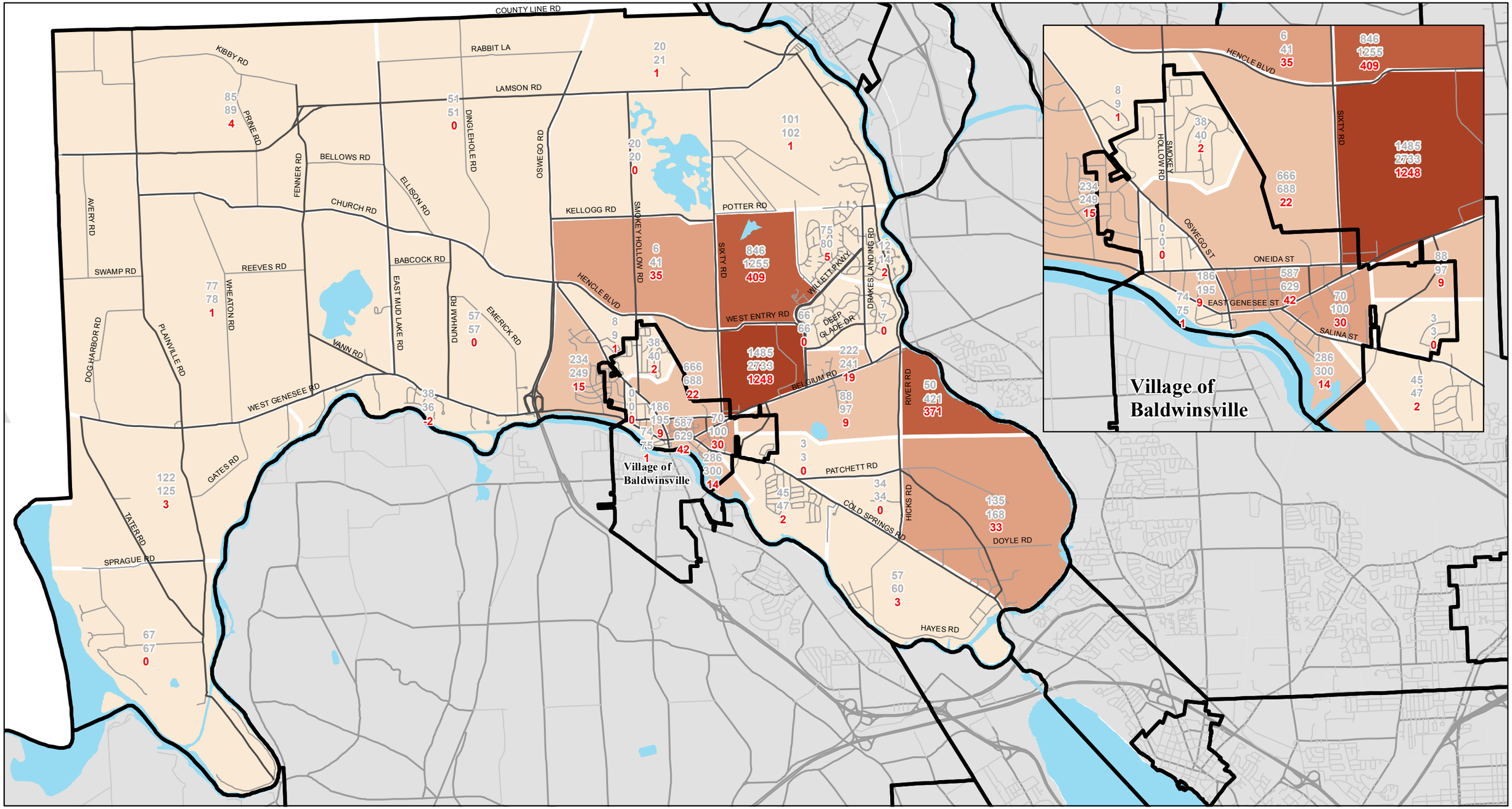
Figure 1
Town of Lysander
Change in Total Households (2014-2050)

This map is for presentation purposes only.
The SMTC does not guarantee the accuracy or completeness of this map.

Lysander Total Households
2014 - 8,551
2050 - 10,472
Change - 1,921

- 2014 Total Households
- 2050 Total Households
- Change in Total Households

Change in Households (2014-2050)
- 0 - 5
- 6 - 25
- 26 - 50
- 51 - 100
- 101 - 200
- 201 +



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0 0.5 1 2 Miles

Data Sources: SMTC, NYSDOT, 2014
Prepared by SMTC, 10/2014

Figure 2
Town of Lysander
Change in Total Jobs (2014-2050)

This map is for presentation purposes only.
The SMTC does not guarantee the accuracy or completeness of this map.

Lysander Total Jobs
2014 - 5,918
2050 - 8,198
Change - 2,280

- 2014 Total Jobs
- 2050 Total Jobs
- Change in Total Jobs

Change in Jobs (2014-2050)
-5 - 5
6 - 25
26 - 50
51 - 200
201 - 500
501 +

The 2050 Future Base model assumes a total of 1,921 new households, or 22 percent growth, and 2,280 new jobs, or 39 percent growth, from current conditions in the town. The Town of Lysander is anticipated to far outpace Onondaga County as a whole in both household and employment growth. The SMTC model includes a 7 percent increase in total households and a 13 percent increase in total jobs in Onondaga County between 2014 and 2050.

The growth in the Town of Lysander is limited to a few areas of the town. As shown by Figure 1, the majority of the household growth is anticipated in the Cold Springs Peninsula area; the zones south of Route 31 account for 72 percent of the town's total new households. Employment growth is concentrated in three zones: east of River Road just south of Route 31 (attributable to the jobs anticipated at the new YMCA) and the two zones north of Route 31 and just east of Sixty Road that comprise the Radisson Corporate Park. Taken together, these three zones account for 89 percent of the total new jobs anticipated in the town by 2050.

The 2050 Future Base model does not include any transportation network changes from the current conditions. In other words, the Future Base model assumes that the road network in 2050 will physically be the same as it is today. This assumption was based on input from the SMTC's member agencies while developing the overall regional travel demand model.

2050 Future Base scenario operations assessment

SMTC staff reviewed the volume-to-capacity (V/C) ratios from the 2050 Future Base travel demand model for road segments and intersections throughout the Town of Lysander for the morning and evening peak hours. (See Technical Memorandum #3 for an explanation of the V/C ratio.)

Figures 3 and 4 show the V/C ratio for model links (segments) and nodes (intersections) within the Cold Springs Peninsula area of the Town of Lysander and part of the adjoining towns for the AM and PM peak hours, respectively. Both figures show the 2050 Future Base conditions based on the SMTC travel demand model outputs. (Segments and nodes for the northern and western sections of the town were found to have consistently low V/C ratios and, therefore, are not shown on Figures 3 and 4.)

Two intersections within the town are anticipated to operate at a V/C ratio between 0.70 and 0.90 (indicating some congested operations) under Future Base conditions. These intersections are: Route 31 (East Genesee Street)/Route 370 (Salina Street) and Route 31 (Genesee Street)/Route 48 (Syracuse Street). No intersections within the town are anticipated to operate with a V/C ratio above 0.90. The Route 370/John Glenn Boulevard intersection in the Town of Salina and the Route 48 (Syracuse Street)/Downer Street intersection in the Town of Van Buren are also anticipated to operate with a V/C ratio between 0.70 and 0.90.

Most of modeled road segments show very good Future Base conditions (V/C ratios less than 0.43, or likely a level of service [LOS] A or B). There are a few segments that are anticipated to operate with V/C ratios between 0.43 and 0.82, indicating LOS C or D conditions (generally acceptable conditions, with some minor congestion). These segments include Route 31 from

Route 48 to just east of Willett Parkway, Route 370 from Hicks Road to River Road, and Route 48 from Route 31 south to Route 690 (in the Town of Van Buren). The only road segment that is anticipated to operate near capacity (LOS E or F) is Route 370 between River Road and John Glenn Boulevard.

2050 Future Alternative conditions

SMTC staff discussed with the Committee members the options for modeling alternative scenarios for the future conditions. Modeled alternatives may include changes in the amount of household or employment growth anticipated for the year 2050, changes to the development pattern at a town-wide level (i.e. simply "clustering" development within a single TAZ cannot be reflected in the travel demand model), or modifications to the transportation network.

The committee members did not feel that changes to the amount of development (households and jobs) or the town-wide pattern of development were warranted based on the relatively good traffic operations indicated by the 2050 Future Base model results. The 2050 Future Base scenario was considered by the committee to represent the upper limit of expected development for the town. The committee members requested that the SMTC model a single future alternative scenario consisting of the 2050 Future Base household and employment assumptions along with the following transportation network changes:

- Turn-lane additions at Route 370/John Glenn Boulevard (as determined by NYSDOT and included in the SMTC's current Transportation Improvement Program).
- Addition of a traffic signal at Route 370/Hicks Road/Hayes Road
- Addition of a traffic signal at Route 370/River Road
- Addition of a traffic signal or installation of a roundabout at Hicks Road/Patchett Road/River Road

For modeling purposes, the signal at Route 370/Hicks Road was assumed to also include left-turn lanes on all approaches, the signal at Route 370/River Road was assumed to include left-turn lanes only on Route 370, and the Hicks Road/Patchett Road/River Road intersection was assumed to be signalized with left-turn lanes on the major approaches. Since these changes reflect capacity increases, it can be assumed that this scenario would also approximate the results of a roundabout at Hicks Road/Patchett Road/River Road. More detailed analysis, including a microsimulation of a traffic signal and/or a roundabout, would be necessary before completing any future projects.

Figures 5 and 6 show the modeling results for the Cold Springs Peninsula area for the AM and PM peak hours, respectively, under the 2050 Future Alternative conditions. Overall, the results are very similar to the 2050 Future Base conditions model results. There are a few changes worth noting, including:

- Reduced V/C ratio (i.e. "better" operations with less delay) at the Route 370/John Glenn Boulevard intersection
- Reduced V/C ratios along Route 370 from Hicks Road to John Glenn Boulevard

- Very low V/C ratios at the Route 370/Hicks Road and Route 370/River Road intersections with signalization.

Both the Route 370/Hicks Road/Hayes Road and Route 370/River Road intersections were previously examined as part of the *Route 370 Corridor Management Plan* by Barton & Loguidice in 2008 and as part of the Timber Banks development traffic assessment.

Regarding Route 370/Hicks Road/Hayes Road, the *Route 370 Corridor Management Plan* stated that "the installation of a traffic signal at this location would help to optimize movement through the intersection, reduce delays, promote use of the controlled intersection instead of the uncontrolled River Road access, and benefit future potential development on Hayes Road." However, this study goes on to state that the NYSDOT had studied the intersection and concluded that a traffic signal was not warranted under existing conditions. In the "Timber Banks with YMCA Traffic Assessment – Response to NYSDOT Comments" dated March 2013, GTS Consulting indicated that, based on discussions with NYSDOT, an updated signal warrant analysis will be completed once the Timber Banks development reaches the reduced initial build-out levels. The *Route 370 Corridor Management Plan* estimated the installation of a traffic signal and southbound left turn lane would cost in excess of $150,000 (in 2008 dollars).

The Route 370 Corridor Management Plan recommended periodic re-evaluation of the Route 370/River Road location for signalization. Installation of a traffic signal and associated turn lane additions were estimated to cost in excess of $250,000 (in 2008 dollars). The Timber Banks assessment also suggested reviewing this location again once the development reaches reduced initial build-out levels.

CHURCH RD
HENCLE BLVD
OSWEGO RD
NY690
SMOKEY HOLLOW RD
SIXTY RD
WEST ENTRY RD
WILLETT PKWY
DEEP GLADE DR
DRAKES LANDING RD
BELGIUM RD - RT31
BELGIUM RD
OLD ROUTE 57
GASKIN RD
SOULE RD
DUNHAM RD
MOTT RD
ARTILLERY LA
DEXTER PKWY
PHILLIPS ST
WEST GENESEE RD
WEST GENESEE ST
OSWEGO ST
EAST ONEIDA ST
EAST GENESEE ST
BYPASS
SALINA ST
PATCHETT RD
HICKS RD
RIVER RD
COLD SPRINGS RD
DOWNER ST
WEST DEAD CREEK RD
WEST SORRELL HILL RD
EAST SORRELL HILL RD
CANTON ST
SYRACUSE ST
MAPLE RD
STATE FAIR BLVD
ELLSWORTH RD
VAN BUREN RD
VILLAGE BLVD NORTH
IDLEWOOD BLVD
OBRIEN RD
JOHN GLENN BLVD
LONG BRANCH RD
JONES RD
CONNORS RD
ELM CRE
NEW Y

Segment V/C Ratio
- 0.00 to 0.26 (LOS A)
- 0.26 to 0.43 (LOS B)
- 0.43 to 0.62 (LOS C)
- 0.62 to 0.82 (LOS D)
- 0.82 to 1.00 (LOS E)
- 1.00 to 2.00 (LOS F)

Directional Volume
1500 1000 500

Intersection V/C Ratio
- 0.00 to 0.70
- 0.70 to 0.90
- 0.90 to 1.80

0 .25 .5 .75
Miles

Figure 3
Lysander 2050 Future Base - AM Peak Period Conditions
SMTC Travel Demand Model Outputs

CHURCH RD
HENCLE BLVD
OSWEGO RD
NY690
DUNHAM RD
SMOKEY HOLLOW RD
SIXTY RD
WILLETT PKWY
WEST ENTRY RD
DEEP GLADE DR
DRAKES LANDING RD
BELGIUM RD - RT31
BELGIUM RD
OLD ROUTE 57
GASKIN RD
SOULE RD
MOTT RD
ARTILLERY LA
DEXTER PKWY
PHILLIPS ST
WEST GENESEE RD
WEST GENESEE ST
OSWEGO ST
EAST ONEIDA ST
EAST GENESEE ST
BYPASS
SALINA ST
PATCHETT RD
HICKS RD
DOWNER ST
WEST DEAD CREEK RD
WEST SORRELL HILL RD
EAST SORRELL HILL RD
CANTON ST
ELLSWORTH RD
SYRACUSE ST
MAPLE RD
STATE FAIR BLVD
VILLAGE BLVD NORTH
IDLEWOOD BLVD
VAN BUREN RD
O'BRIEN RD
COLD SPRINGS RD
RIVER RD
JOHN GLENN BLVD
LONG BRANCH RD
JONES RD
CONNORS RD

Segment V/C Ratio
- 0.00 to 0.26 (LOS A)
- 0.26 to 0.43 (LOS B)
- 0.43 to 0.62 (LOS C)
- 0.62 to 0.82 (LOS D)
- 0.82 to 1.00 (LOS E)
- 1.00 to 2.0 (LOS F)

Directional Volume
1500 1000 500

Intersection V/C Ratio
- 0.00 to 0.70
- 0.70 to 0.90
- 0.90 to 1.80

0 .25 .5 .75
Miles

Figure 4
Lysander 2050 Future Base - PM Peak Period Conditions
SMTC Travel Demand Model Outputs

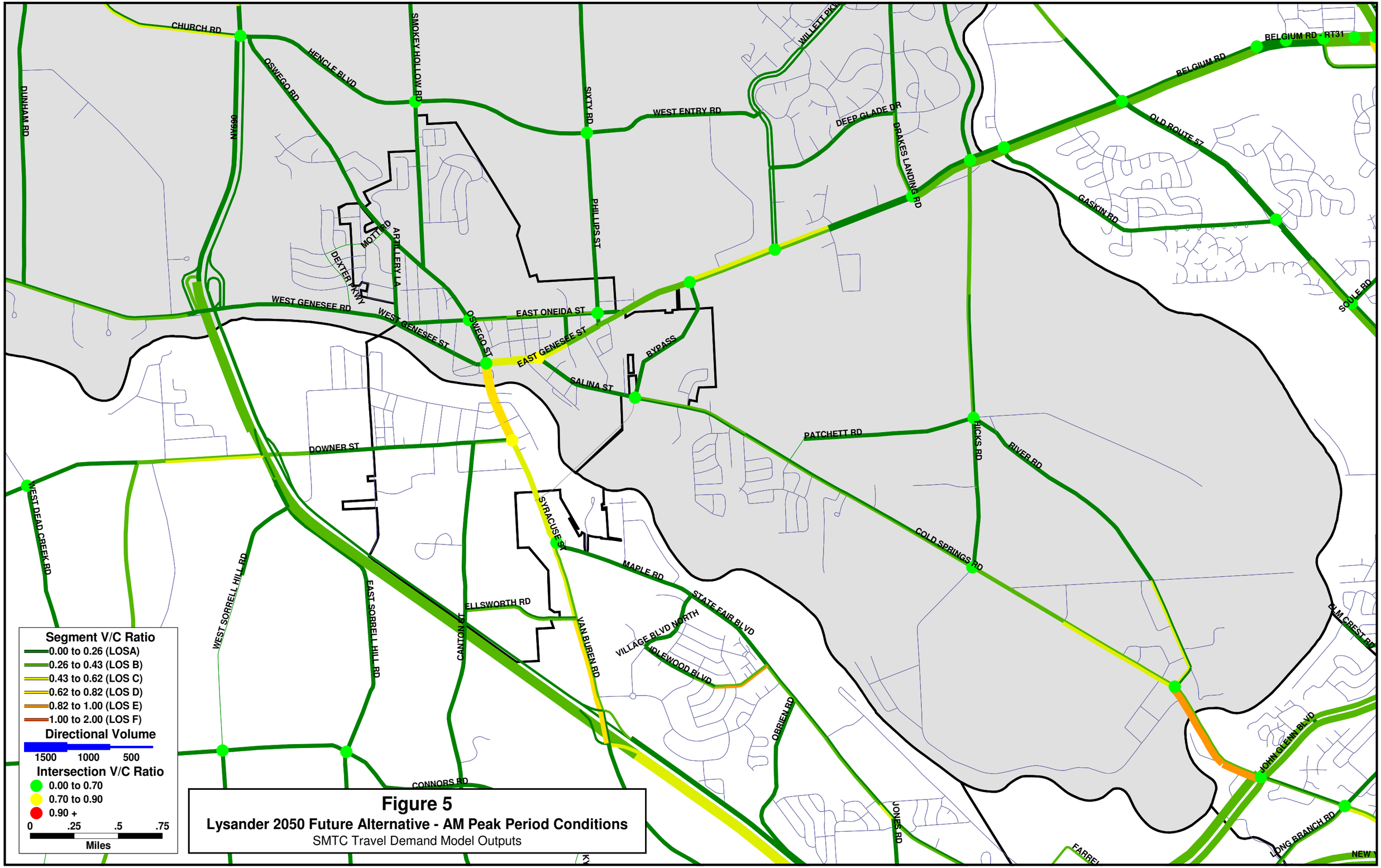


Figure 5

Lysander 2050 Future Alternative - AM Peak Period Conditions

SMTC Travel Demand Model Outputs

CHURCH RD
HENCLE BLVD
OSWEGO RD
SMOKEY HOLLOW RD
SIXTY RD
WEST ENTRY RD
WILLETT PKWY
DEEP GLADE DR
DRAKES LANDING RD
BELGIUM RD - RT31
BELGIUM RD
OLD ROUTE 57
GASKIN RD
SOULE RD
DUNHAM RD
NY690
MOTT RD
ARTILLERY LA
DEXTER PKWY
PHILLIPS ST
WEST GENESEE RD
WEST GENESEE ST
OSWEGO ST
EAST ONEIDA ST
EAST GENESEE ST
BYPASS
SALINA ST
PATCHETT RD
HICKS RD
RIVER RD
COLD SPRINGS RD
DOWNER ST
WEST DEAD CREEK RD
WEST SORRELL HILL RD
EAST SORRELL HILL RD
CANTON ST
ELLSWORTH RD
SYRACUSE ST
VAN BUREN RD
MAPLE RD
STATE FAIR BLVD
VILLAGE BLVD NORTH
IDLEWOOD BLVD
O'BRIEN RD
JONES RD
ELM CREST RD
JOHN GLENN BLVD
LONG BRANCH RD
CONNORS RD

Segment V/C Ratio
- 0.00 to 0.26 (LOS A)
- 0.26 to 0.43 (LOS B)
- 0.43 to 0.62 (LOS C)
- 0.62 to 0.82 (LOS D)
- 0.82 to 1.00 (LOS E)
- 1.00 to 2.00 (LOS F)

Directional Volume
1500 1000 500

Intersection V/C Ratio
- 0.00 to 0.70
- 0.70 to 0.90
- 0.90 +

0 .25 .5 .75
Miles

Figure 6
Lysander 2050 Future Alternative - PM Peak Period Conditions
SMTC Travel Demand Model Outputs

Summary

The SMTC used a travel demand model to assess future travel conditions, as measured by V/C ratios for intersections and road segments, within the Town of Lysander. The 2050 Future Base model included approximately 1,900 new households and nearly 2,300 additional jobs, compared to existing conditions. Nearly 75 percent of the new residential development is anticipated to occur in the Cold Springs Peninsula area. These assumptions were developed in consultation with the Town of Lysander. The 2050 Future Base model did not include any changes to the existing transportation system in the town. The results of the 2050 Future Base modeling indicate that most road segments and intersections in the town will continue to operate well in the future with the assumed household and employment growth. Only two intersections (both within the Village of Baldwinsville) and a few segments of Route 31 and Route 370 are expected to operate with some congestion during the peak hours. The only road segment anticipated to operate near or above capacity is Route 370 between River Road and John Glenn Boulevard during both the AM and PM peak hours.

The SMTC also modeled one 2050 Future Alternative scenario for the town, which included signalization of three intersections (Route 370/Hicks Road/Hayes Road, Route 370/River Road, and Hicks Road/Patchett Road/River Road) and turn lane additions at the Route 370/John Glenn Boulevard intersection. No modifications to the anticipated future growth in households or employment were considered in the alternative modeling. The 2050 Future Alternative scenario results were very similar to the 2050 Future Base, with slight improvements in operation on some road segments and very good operations anticipated at the newly signalized intersections.

The turn lane additions at the Route 370/John Glenn Boulevard intersection are included in the SMTC's current Transportation Improvement Program (capital funding program) with the scoping phase of the project slated to begin in Federal Fiscal Year 2014.

The addition of traffic signals on Route 370 at Hicks Road/Hayes Road and at River Road has been considered in previous studies, such as the *Route 370 Corridor Management Plan* and the traffic assessment for the Timber Banks development. Although the modeling conducted by the SMTC suggests that signals at these intersections will operate well and may slightly improve future traffic operations on adjacent road segments, all previous analysis has indicated that the locations do not satisfy signal warrants. The Town of Lysander should continue to coordinate with the NYSDOT to determine the appropriate future configuration of both of these intersections on Route 370. As noted in Technical Memorandum #3, the cost of installing and maintaining traffic signals should be weighed against the likely benefit to all residents and the potential to induce additional demand in the future.

Appendix C

Maps

1. Zoning
2. Incentive Zoning Overlay
3. Residential Year Built
4. Septic Suitability of Soils
5. Commercial and Industrial Sites
6. Public Sewer Systems
7. Hydrology
8. Watersheds
9. Water Supply
10. Public Drinking Water Systems
11. Parks and Recreation
12. Road Ownership
13. Agricultural Parcels
14. Areas Unsuited For Development

Town of Lysander

Comprehensive Land Use Plan

ZONING

Legend

Zoning

- Agricultural (A)
- Agricultural Residential - 40,000 (AR-40)
- Residential - 20,000 (R-20)
- Residential - 12,500 (R-12.5)
- Residential - 10,000 (R-10)
- Planned Unit Development (PUD)
- General Commercial (GC)
- Retail Service (RS)
- General Business (GB)
- Neighborhood Residential Business (NR-BD)
- Industrial
- NYS Flowage Easement
- Parks

0 0.25 0.5 0.75 1 1.25 1.5 1.75 2 Miles

Zoning Data Source: Barton and Loguidice, January 2014

THIS MAP IS INTENDED FOR GENERAL PLANNING PURPOSES ONLY.

SOCPA
SYRACUSE - ONONDAGA COUNTY PLANNING AGENCY

Town of Lysander

Comprehensive Land Use Plan

PROPOSED INCENTIVE ZONING OVERLAY

Legend

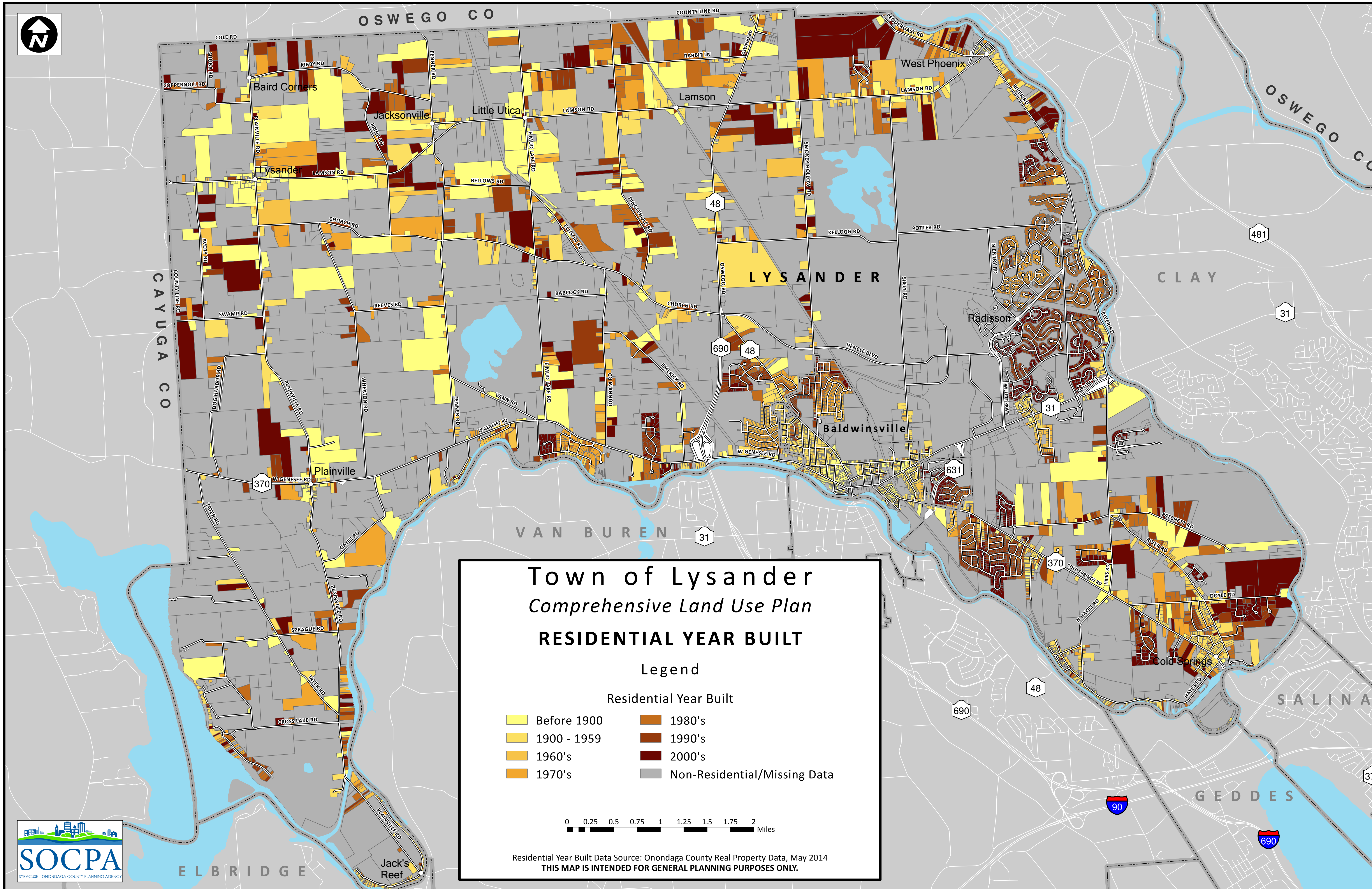
Zoning

- Agricultural (A)
- Agricultural Residential - 40,000 (AR-40)
- Residential - 20,000 (R-20)
- Residential - 12,500 (R-12.5)
- Residential - 10,000 (R-10)
- Planned Unit Development (PUD)
- Incentive Zoning Overlay
- General Commercial (GC)
- Retail Service (RS)
- General Business (GB)
- Neighborhood Residential Business (NR-BD)
- Industrial
- NYS Flowage Easement
- Parks

0 0.25 0.5 0.75 1 1.25 1.5 1.75 2 Miles

Incentive Zoning Overlay and Conservation Easement Line Source: Town of Lysander
Zoning Data Source: Barton and Loguidice, January 2014
THIS MAP IS INTENDED FOR GENERAL PLANNING PURPOSES ONLY.

SOCPA
SYRACUSE - ONONDAGA COUNTY PLANNING AGENCY


Town of Lysander
Comprehensive Land Use Plan
RESIDENTIAL YEAR BUILT
Legend
Residential Year Built
Before 1900
1900 - 1959
1960's
1970's
1980's
1990's
2000's
Non-Residential/Missing Data
0 0.25 0.5 0.75 1 1.25 1.5 1.75 2 Miles
Residential Year Built Data Source: Onondaga County Real Property Data, May 2014
THIS MAP IS INTENDED FOR GENERAL PLANNING PURPOSES ONLY.
OSWEGO CO
CAYUGA CO
LYSANDER
CLAY
VAN BUREN
SALINA
GEDDES
ELBRIDGE
Baird Corners
Jacksonville
Little Utica
Lamson
West Phoenix
Lysander
Radisson
Baldwinsville
Plainville
Cold Springs
Jack's Reef
SOCPA
SYRACUSE - ONONDAGA COUNTY PLANNING AGENCY

Soils Data Source Statement: This Soil Survey Geographic (SSURGO) data base was produced by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies for the Soil Survey of Onondaga County, New York. The soils were mapped at a scale of 1:12,000. Enlargement of these maps to scales greater than that at which they were originally mapped can cause misunderstanding of the detail of mapping. If enlarged, maps do not show the small areas of contrasting soil that could have been shown at a larger scale. The depicted soil boundaries and interpretations derived from them do not eliminate the need of onsite sampling, testing, and detailed study of specific sites for intensive uses. Thus, this map and its interpretations are intended for planning purposes only. Digital data files are periodically updated. Files are dated, and users are responsible for obtaining the latest version of the data.
Septic Suitability Source Statement: This map is intended for general planning purposes only and should not be used to determine the suitability of a septic system for a specific site. Contact the Onondaga County Department of Environmental Health for site specific information.

OSWEGO CO

CAYUGA CO

CLAY

SALINA

VAN BUREN

GEDDES

ELBRIDGE

LYSANDER

Baird Corners

Jacksonville

Little Utica

Lamson

West Phoenix

Lysander

Radisson

Baldwinsville

Plainville

Cold Springs

Jack's Reef

COUNTY LINE RD
COLE RD
KIBBY RD
COPPERNOLL RD
SHUBA RD
FENNER RD
RABBIT LN
OSWEGO RD
PRENDERGAST RD
LAMSON RD
RIVER RD
PLAINVILLE RD
PRINE RD
E MUD LAKE RD
BELLOWS RD
DINGLEHOLE RD
SMOKEY HOLLOW RD
CHURCH RD
ELLISON RD
KELLOGG RD
POTTER RD
N ENTRY RD
AVERY RD
SIXTY RD
BABCOCK RD
REEVES RD
SWAMP RD
HENCLE BLVD
EMERICK RD
DUNHAM RD
VANN RD
W GENESEE RD
WILLETT PKWY
ROUTE 31
RIVER RD
DOG HARBOR RD
WHEATON RD
FENNER RD
TATER RD
GATES RD
SPRAGUE RD
CROSS LAKE RD
PATCHETT RD
COLD SPRINGS RD
HICKS RD
N HAYES RD
DOYLE RD
HAYES RD

48
481
31
690
370
631
90

Town of Lysander

Comprehensive Land Use Plan

SEPTIC SUITABILITY OF SOILS

Legend

Septic System Suitability Ratings

- Sites suitable for conventional systems with few limitations as to location and design
- Sites suitable for conventional systems only in areas where percolation is found to be satisfactory. Drainage improvements may be required. Shallow system installation may be required.
- Sites generally not suitable for conventional systems
- Sites unsuitable
- Sites with underlying bedrock. Suitability dependent upon depth to bedrock in system area and percolation of soil above.
- Areas not rated
- Sanitary District Boundary

0 0.25 0.5 0.75 1 1.25 1.5 1.75 2 Miles

Soils Data Source: USDA NRCS and Onondaga County SWCD
Septic System Suitability Ratings for Soils Source: Onondaga County Department of Environmental Health
THIS MAP IS INTENDED FOR GENERAL PLANNING PURPOSES ONLY.

SOCPA
SYRACUSE - ONONDAGA COUNTY PLANNING AGENCY

Town of Lysander

Comprehensive Land Use Plan

COMMERCIAL AND INDUSTRIAL SITES

Legend

Sanitary District Boundary

Zoning

Commercial, Industrial & Planned Unit Development* Zoning Districts
- GB - General Business
- GC - General Commercial
- IND - Industrial
- NR-BD - Neighborhood Service
- PUD - Planned Unit Development
- RS - Retail Service

**Only the Commercial and Industrial areas of the Radisson PUD district are shown on this map.*

0 0.25 0.5 0.75 1 1.25 1.5 1.75 2 Miles

Zoning Data Source: Barton and Loguidice, D.P.C., January 2014

THIS MAP IS INTENDED FOR GENERAL PLANNING PURPOSES ONLY.

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OSWEGO CO
CAYUGA CO
CLAY
VAN BUREN
ELBRIDGE
SALINA
GEDDES
LYSANDER
Baird Corners
Jacksonville
Little Utica
Lamson
West Phoenix
Lysander
Plainville
Jack's Reef
Baldwinsville
Radisson
Cold Springs
COUNTY LINE RD
COLE RD
KIBBY RD
COPPERNOLL RD
SHUBA RD
FENNER RD
RABBIT LN
OSWEGO RD
PRENDERGAST RD
LAMSON RD
RIVER RD
PRINE RD
E MUD LAKE RD
BELLOWS RD
DINGLEHOLE RD
SMOKEY HOLLOW RD
KELLOGG RD
POTTER RD
N ENTRY RD
SIXTY RD
CHURCH RD
AVERY RD
ELLISON RD
BABCOCK RD
REEVES RD
SWAMP RD
HENCLE BLVD
EMERICK RD
VANN RD
DOG HARBOR RD
WHEATON RD
DUCK HAWK RD
W GENESEE RD
ROUTE 31
PATCHETT RD
COLD SPRINGS RD
THICKS RD
N HAYES RD
DOYLE RD
HAYES RD
TATER RD
GATES RD
SPRAGUE RD
CROSS LAKE RD
48
690
370
631
31
481
90
NR-BD
GB
GC
IND
PUD
RS

Town of Lysander

Comprehensive Land Use Plan

PUBLIC SEWER SYSTEM

Legend

- Sanitary District Boundary
- Baldwinsville-Seneca Knolls Treatment Plant Service Area
- Sewer Districts
- WTP Treatment Plants
- County Trunk Sewers
- Town Sewers
- Dry Sewers
- PS Pump Stations

0 0.25 0.5 0.75 1 1.25 1.5 1.75 2 Miles

Wastewater Infrastructure Data Source: Onondaga County Department of Water Environment Protection

THIS MAP IS INTENDED FOR GENERAL PLANNING PURPOSES ONLY.

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SYRACUSE - ONONDAGA COUNTY PLANNING AGENCY

Town of Lysander
Comprehensive Land Use Plan
HYDROLOGY

Floodplains Data Source Statement: Provided by the Federal Emergency Management Agency from Flood Insurance Maps June 1982 – August 1984
Not to be used to determine whether flood insurance is available in designated areas. For confirmation contact the National Flood Insurance Program, or refer to individual flood insurance maps available from the Town Clerk's offices. This map was prepared to facilitate flood plain management activities only and may not show all special flood hazard areas in the community. Refer to the latest official Flood Insurance Rate Map for any additional of special flood hazard. Floodway widths in some areas may be too narrow to show to scale so they may have been exaggerated. This map does not necessarily show all areas subject to flooding.

State Regulated Wetlands Data Source Statement: Provided by the NYS Department of Environmental Conservation
This map depicts the approximate outline of freshwater wetlands regulated under Article 24 of the NYS Environmental Conservation Law, as maintained by the NYS Department of Environmental Conservation, Division of Fish, Wildlife, and Marine Resources in certain counties of the State. Freshwater wetland boundaries are subject to amendment. The boundaries depicted are current as of October 1997. The regulated freshwater wetlands for all field counties are shown on official maps available at Regional offices of the NYS Department of Environmental Conservation and at the office of the clerk of each local government.

Federal Wetlands Data Source Statement: Provided by the USFWS National Wetlands Inventory
The purpose of this survey was not to map all wetlands and deepwater habitats of the United States, but rather to use aerial photointerpretation techniques to produce thematic maps that show, in most cases, the larger ones and types that can be identified by such techniques. The objective was to provide better spatial information on wetlands than found on the U.S. Geological Survey topographic maps. It was not the intent of the NWI to produce maps that show exact wetland boundaries comparable to boundaries derived from ground surveys. Boundaries are therefore generalized in most cases. Consequently, the quality of the wetland data is variable mainly due to source photography, ease or difficulty of interpreting specific wetland types, and survey methods.

Legend

- Floodplains
- State Wetlands
- Federal Wetlands
- Flowage Easement
- Perennial Streams
- Intermittent Streams

0 0.25 0.5 0.75 1 1.25 1.5 1.75 2 Miles

Floodplain Data Source: FEMA
State Wetlands Data Source: NYSDEC
Federal Wetlands Data Source: USFWS
NYS Flowage Easement Data Source: Barton and Loguidice, D.P.C.
THIS MAP IS INTENDED FOR GENERAL PLANNING PURPOSES ONLY.

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SYRACUSE - ONONDAGA COUNTY PLANNING AGENCY

OSWEGO CO
CAYUGA CO
VAN BUREN
LYSANDER
SALINA
GEDDES
ELBRIDGE
Baird Corners
Jacksonville
Little Utica
Lamson
West Phoenix
Lysander
Plainville
Radisson
Baldwinsville
Cold Springs
Jack's Reef
Beaver Lake
Greene Pond
Cross Lake
Frog Hole Swamp
Oswego River
Seneca River
Oneida River
Onondaga Lake
Ox Creek
Middle Lake Inlet
Middle Lake Outlet
Erie Canal
COUNTY LINE RD
COLE RD
COPPERNOLL RD
KIBBY RD
SHUBA RD
FENNER RD
RABBIT LN
OSWEGO RD
PENDERGAST RD
RIVER RD
LAMSON RD
PRINE RD
PLAINVILLE RD
E MUD LAKE RD
BELLOWS RD
SMOKEY HOLLOW RD
DINGLEHOLE RD
ELLISON RD
CHURCH RD
KELLOGG RD
POTTER RD
AVERY RD
SWAMP RD
BABCOCK RD
REEVES RD
SIXTY RD
N ENTRY RD
RUGE RD
HENCLE BLVD
EMERICK RD
DUCK HARBOR RD
WHEATON RD
VANN RD
W GENESEE RD
MILLETT PKWY
ROUTE 31
TATER RD
GATES RD
SPRAGUE RD
CROSS LAKE RD
PATCHETT RD
COLD SPRINGS RD
HICKS RD
N HAYES RD
DOYLE RD
HAYES RD
48
690
31
370
631
90

The watershed boundaries depicted on this map were digitized from the Watershed Characteristics maps created by the Onondaga County Environmental Management Council as part of the Environmental Inventory series of maps prepared for each town in Onondaga County. The watershed boundaries were located by interpreting contour lines on United States Geological Survey 7.5 minute topographic quadrangles.

Town of Lysander

Comprehensive Land Use Plan

WATERSHEDS

Legend

Major Watersheds
- Oswego River Basin
- Lower Seneca River Basin

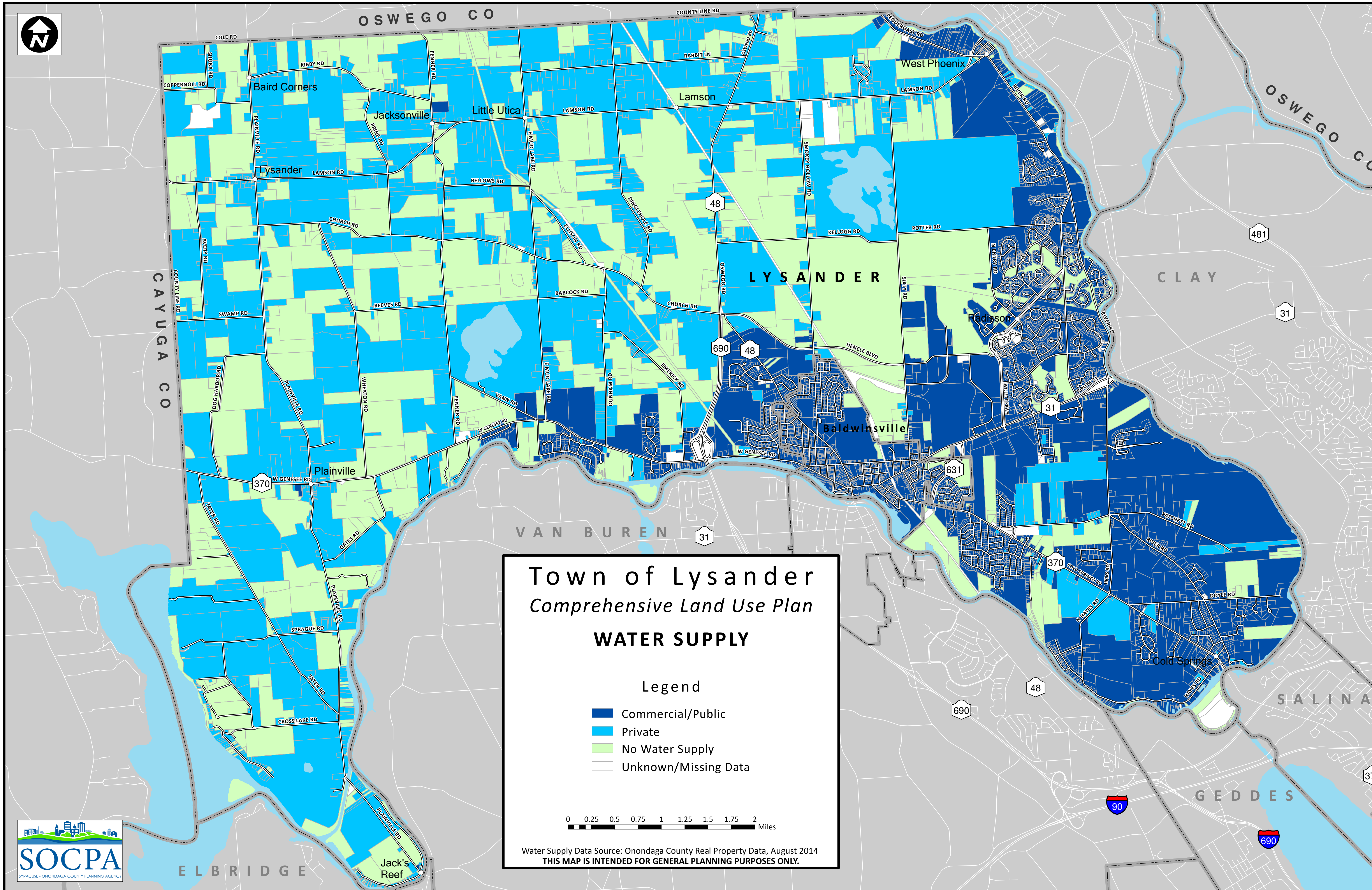
- Sub-Watershed Boundary
- Tributary Watershed Boundary
- Perennial Streams
- Intermittent Streams

0 0.25 0.5 0.75 1 1.25 1.5 1.75 2 Miles

Watershed Data Source: Onondaga County Environmental Management Council Environmental Inventory Maps

THIS MAP IS INTENDED FOR GENERAL PLANNING PURPOSES ONLY.

SOCPA
SYRACUSE - ONONDAGA COUNTY PLANNING AGENCY


Town of Lysander
Comprehensive Land Use Plan
WATER SUPPLY
Legend
Commercial/Public
Private
No Water Supply
Unknown/Missing Data
0 0.25 0.5 0.75 1 1.25 1.5 1.75 2 Miles
Water Supply Data Source: Onondaga County Real Property Data, August 2014
THIS MAP IS INTENDED FOR GENERAL PLANNING PURPOSES ONLY.
OSWEGO CO
CAYUGA CO
CLAY
VAN BUREN
ELBRIDGE
SALINA
GEDDES
LYSANDER
Baldwinsville
Baird Corners
Jacksonville
Little Utica
Lamson
West Phoenix
Lysander
Radisson
Plainville
Cold Springs
Jack's Reef
SOCPA
SYRACUSE · ONONDAGA COUNTY PLANNING AGENCY

Water Districts Data Source Statement: Provided by the New York State Department of Health, Center for Environmental Health, 2008
This geographic data set contains boundaries of the areas with water supply service for all public water supply systems in New York State that serve over 1,000 people and for some systems that serve fewer people. This data set is under development so that polygons still show the larger legal service territory for many water suppliers. Users of the current version of this data set should use caution when inferring water service when boundaries of Water Supply Service are the same as the corresponding boundaries in Water Districts.
These data show where public water service exists in New York State. Data are general boundaries that are not based on engineering drawings or actual verification of service. This data set should not be used to determine whether a specific parcel receives public water. This data set is to be released only by the New York State Department of Health.

Aquifer Data Source Statement: Provided by the U.S. Geological Survey, 2008
In 2006, the New York State Department of Environmental Conservation (NYSDEC) and the U.S. Geological Survey (USGS) cooperatively funded a Brownfield and Groundwater GIS Program as required by the 2003 legislation that established a Brownfield Cleanup Program (NYS Assembly Bill 9120). The NYSDEC developed an implementation plan for the Brownfield and Groundwater GIS Program, and one action identified in that plan was the development of spatial datasets of the aquifer maps published by the U.S. Geological Survey Detailed Aquifer Mapping Program.
The USGS has mapped over 30 sand and gravel aquifers in upstate New York at the 1:24,000-scale since the 1980's. The following enhancements were made in the creation of the georeferenced map layers:
1) The surficial-geology mapping units were standardized to NYS Geological Survey nomenclature,
2) The aquifer boundaries were redrawn to include adjacent areas of permeable material hydraulically connected to the primary or principal aquifer, and
3) Adjacent maps were edgematched, preserving the original geologic interpretations from over 25 authors.
To further increase applicability, the map layers contain original mapping units and aquifer boundaries as well as the new standardized mapping units and updated aquifer boundaries. The original published aquifer maps contain additional base and geologic information not included in these map layers. The published aquifer maps are available for download in their entirety from the USGS Publications Warehouse (http://infotrek.er.usgs.gov/pubs/).
These data are intended for use in publications, at a scale of 1:24,000 or smaller. The primary intended use is for local and regional display and analysis. It is not intended for site-specific studies.

OSWEGO CO
CAYUGA CO
VAN BUREN
ELBRIDGE
SALINA
GEDDES
LYSANDER
Baird Corners
Jacksonville
Little Utica
Lysander
Lamson
West Phoenix
Radisson
Baldwinsville
Plainville
Cold Springs
Jack's Reef
48
690
31
370
631
90

Town of Lysander

Comprehensive Land Use Plan

PUBLIC DRINKING WATER SYSTEM

Legend

Water Districts

- OCWA Districts
- Town of Lysander Districts
- Village of Baldwinsville Districts
- Proposed Lamson Road District

- Aquifers
- Sanitary District Boundary

0 0.25 0.5 0.75 1 1.25 1.5 1.75 2 Miles

Water Service Data Source: NYS Department of Health with revisions by the Town of Lysander
Proposed Lamson Road Water District Source: Town of Lysander
Aquifer Data Source: USGS
THIS MAP IS INTENDED FOR GENERAL PLANNING PURPOSES ONLY.

SOCPA
SYRACUSE - ONONDAGA COUNTY PLANNING AGENCY

Town of Lysander

Comprehensive Land Use Plan

PARKS AND RECREATION

Legend

- Parks
- CNY Land Trust Properties
- Golf Courses
- Radisson PUD Green Spaces
- Schools
- YMCA
- Greater Baldwinsville Ice Arena

0 0.25 0.5 0.75 1 1.25 1.5 1.75 2 Miles

THIS MAP IS INTENDED FOR GENERAL PLANNING PURPOSES ONLY.

SOCPA
SYRACUSE - ONONDAGA COUNTY PLANNING AGENCY

OSWEGO CO
CAYUGA CO
CLAY
VAN BUREN
ELBRIDGE
SALINA
GEDDES
LYSANDER
Baird Corners
Jacksonville
Little Utica
Lamson
West Phoenix
Lysander
Plainville
Radisson
Baldwinsville
Cold Springs
Jack's Reef
Three Rivers State Wildlife Management Area
Beaver Lake Nature Center
Emerick Road
Lysander Town Park
Greater Baldwinsville Ice Arena
Radisson Greens Golf Course
Timber Banks Golf & Marina
YMCA
Canterbury Woods
Durgee Middle
Elden Elementary
Baker High
Merrick Park
Palmer Elementary
COUNTY LINE RD
COLE RD
COPPERNOLL RD
KIBBY RD
SHUBA RD
FENNER RD
RABBIT LN
DUNKO RD
PRENDERGAST RD
LAMSON RD
RIVER RD
PLAINVILLE RD
PRINE RD
BELLOWS RD
E MUD LAKE RD
ELLISON RD
DINGLEHOLE RD
SMOKEY HOLLOW RD
KELLOGG RD
POTTER RD
N ENTRY RD
CHURCH RD
AVERY RD
SWAMP RD
REEVES RD
BABCOCK RD
OSWEGO RD
SIXTY FIVE RD
HENGLE BLVD
EMERICK RD
DUNHAM RD
VANN RD
WHEATON RD
DOG HARBOR RD
W GENESEE RD
MILLETT PKWY
ROUTE 31
RIVER RD
PATCHETT RD
COLD SPRINGS RD
HICKS RD
N HAYES RD
DOYLE RD
HAYES RD
TATER RD
GATES RD
SPRAGUE RD
CROSS LAKE RD
48
690
631
370
481
31
90

Town of Lysander

Comprehensive Land Use Plan

ROAD OWNERSHIP

Legend

Road Ownership

- Interstates
- Ramps
- State Highways
- Local/Private Roads
- County Highways
- Federal Aid Eligible Roads *(Lysander Only)*

0 0.25 0.5 0.75 1 1.25 1.5 1.75 2 Miles

Federal Aid Eligible Data Source: SMTC

THIS MAP IS INTENDED FOR GENERAL PLANNING PURPOSES ONLY.

SOCPA
SYRACUSE - ONONDAGA COUNTY PLANNING AGENCY

OSWEGO CO
CAYUGA CO
CLAY
VAN BUREN
ELBRIDGE
SALINA
GEDDES
LYSANDER
Baldwinsville
Radisson
West Phoenix
Lamson
Little Utica
Jacksonville
Baird Corners
Lysander
Plainville
Jack's Reef
Cold Springs
COUNTY LINE RD
COLE RD
SHUBA RD
KIBBY RD
COPPERNOLL RD
PLAINVILLE RD
FENNER RD
RABBIT LN
OSWEGO RD
PENDERGAST RD
LAMSON RD
RIVER RD
PRINE RD
E MUD LAKE RD
SMOKEY HOLLOW RD
BELLOWS RD
DINGLEHOLE RD
ELLISON RD
CHURCH RD
KELLOGG RD
POTTER RD
N ENTRY RD
SIXTY RD
AVERY RD
SWAMP RD
REEVES RD
BABCOCK RD
HENCLE BLVD
BLUEBIRD
ROUTE 31
WILLEY PKWY
DOG HARBOR RD
WHEATON RD
VANN RD
DUNHAM RD
EMERICK RD
W GENESEE RD
TATER RD
GATES RD
SPRAGUE RD
CROSS LAKE RD
PATCHETT RD
COLD SPRINGS RD
HICKS RD
N HAYES RD
DOYLE RD
HAYES RD
48
690
631
370
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481
90

Town of Lysander

Comprehensive Land Use Plan

AGRICULTURAL PARCELS

Legend

- Agricultural Land Use
- Parcels in an Agricultural District
- Parcels receiving an Agricultural Exemption

0 0.25 0.5 0.75 1 1.25 1.5 1.75 2 Miles

Agricultural Land Use Data Source: Onondaga County Real Property Data, May 2014
Agricultural Exemption Data Source: Onondaga County Real Property Data, August 2014
THIS MAP IS INTENDED FOR GENERAL PLANNING PURPOSES ONLY.

SOCPA
SYRACUSE - ONONDAGA COUNTY PLANNING AGENCY

OSWEGO CO
CAYUGA CO
OSWEGO CO
CLAY
VAN BUREN
ELBRIDGE
SALINA
GEDDES
LYSANDER
Baird Corners
Jacksonville
Little Utica
Lamson
West Phoenix
Lysander
Plainville
Baldwinsville
Radisson
Cold Springs
Jack's Reef
COUNTY LINE RD
COLE RD
KIBBY RD
COPPERNOLL RD
SHUBA RD
FENNER RD
RABBIT LN
OSWEGO RD
PRENDERGAST RD
LAMSON RD
RIVER RD
PLAINVILLE RD
PRINE RD
BELLOWS RD
E MUD LAKE RD
DINGLEHOLE RD
SMOKEY HOLLOW RD
KELLOGG RD
POTTER RD
CHURCH RD
AVERY RD
ELLISON RD
SIXTY RD
N ENTRY RD
SWAMP RD
REEVES RD
BABCOCK RD
HENCLE BLVD
EMERICK RD
OLD HARBOR RD
WHEATON RD
DURHAM RD
VANN RD
W GENESEE RD
ROUTE 31
MILLER PKWY
PATCHETT RD
COLD SPRINGS RD
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DOYLE RD
HAYES RD
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GATES RD
SPRAGUE RD
CROSS LAKE RD
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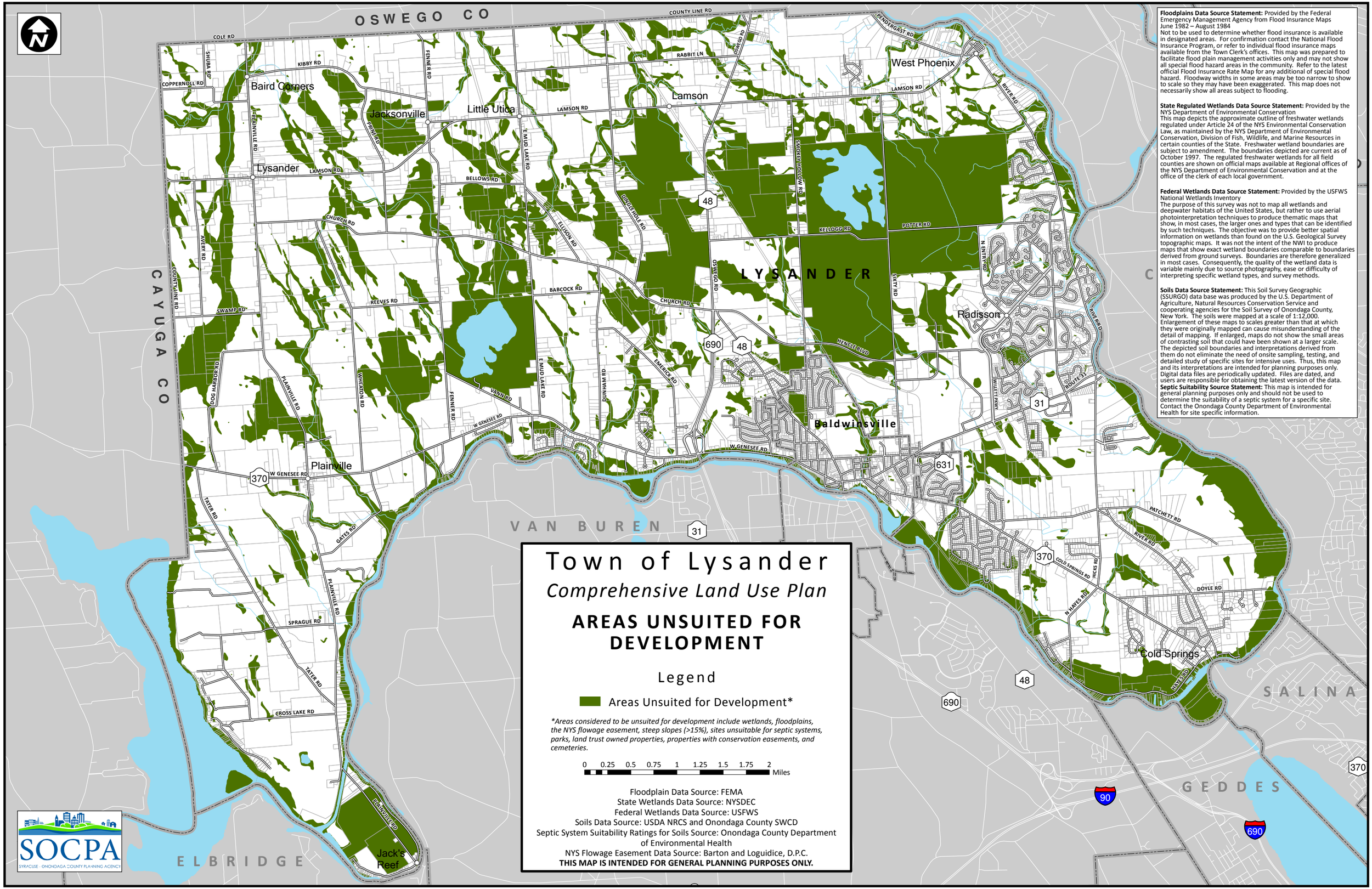

Town of Lysander

Comprehensive Land Use Plan

AREAS UNSUITED FOR DEVELOPMENT

Legend

Areas Unsuited for Development*

**Areas considered to be unsuited for development include wetlands, floodplains, the NYS flowage easement, steep slopes (>15%), sites unsuitable for septic systems, parks, land trust owned properties, properties with conservation easements, and cemeteries.*

0 0.25 0.5 0.75 1 1.25 1.5 1.75 2 Miles

Floodplain Data Source: FEMA
State Wetlands Data Source: NYSDEC
Federal Wetlands Data Source: USFWS
Soils Data Source: USDA NRCS and Onondaga County SWCD
Septic System Suitability Ratings for Soils Source: Onondaga County Department of Environmental Health
NYS Flowage Easement Data Source: Barton and Loguidice, D.P.C.
THIS MAP IS INTENDED FOR GENERAL PLANNING PURPOSES ONLY.

SOCPA
SYRACUSE - ONONDAGA COUNTY PLANNING AGENCY

Floodplains Data Source Statement: Provided by the Federal Emergency Management Agency from Flood Insurance Maps June 1982 – August 1984
Not to be used to determine whether flood insurance is available in designated areas. For confirmation contact the National Flood Insurance Program, or refer to individual flood insurance maps available from the Town Clerk's offices. This map was prepared to facilitate flood plain management activities only and may not show all special flood hazard areas in the community. Refer to the latest official Flood Insurance Rate Map for any additional of special flood hazard. Floodway widths in some areas may be too narrow to show to scale so they may have been exagerated. This map does not necessarily show all areas subject to flooding.

State Regulated Wetlands Data Source Statement: Provided by the NYS Department of Environmental Conservation
This map depicts the approximate outline of freshwater wetlands regulated under Article 24 of the NYS Environmental Conservation Law, as maintained by the NYS Department of Environmental Conservation, Division of Fish, Wildlife, and Marine Resources in certain counties of the State. Freshwater wetland boundaries are subject to amendment. The boundaries depicted are current as of October 1997. The regulated freshwater wetlands for all field counties are shown on official maps available at Regional offices of the NYS Department of Environmental Conservation and at the office of the clerk of each local government.

Federal Wetlands Data Source Statement: Provided by the USFWS National Wetlands Inventory
The purpose of this survey was not to map all wetlands and deepwater habitats of the United States, but rather to use aerial photointerpretation techniques to produce thematic maps that show, in most cases, the larger ones and types that can be identified by such techniques. The objective was to provide better spatial information on wetlands than found on the U.S. Geological Survey topographic maps. It was not the intent of the NWI to produce maps that show exact wetland boundaries comparable to boundaries derived from ground surveys. Boundaries are therefore generalized in most cases. Consequently, the quality of the wetland data is variable mainly due to source photography, ease or difficulty of interpreting specific wetland types, and survey methods.

Soils Data Source Statement: This Soil Survey Geographic (SSURGO) data base was produced by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies for the Soil Survey of Onondaga County, New York. The soils were mapped at a scale of 1:12,000. Enlargement of these maps to scales greater than that at which they were originally mapped can cause misunderstanding of the detail of mapping. If enlarged, maps do not show the small areas of contrasting soil that could have been shown at a larger scale. The depicted soil boundaries and interpretations derived from them do not eliminate the need of onsite sampling, testing, and detailed study of specific sites for intensive uses. Thus, this map and its interpretations are intended for planning purposes only. Digital data files are periodically updated. Files are dated, and users are responsible for obtaining the latest version of the data.
Septic Suitability Source Statement: This map is intended for general planning purposes only and should not be used to determine the suitability of a septic system for a specific site. Contact the Onondaga County Department of Environmental Health for site specific information.