SUPPLEMENTAL PACKAGE
FOR 7/7/21 CITY COUNCIL MEETING

CITY OF GENEVA LOCHLAND ROAD PROJECT
Proposed Planned Unit Development
1115 Lochland Road (NYS-14 [American Legion Property])

TABLE OF CONTENTS

The following is a summary of the steps before City Council based upon the Planned Unit Development ("PUD") Applications submitted for the American Legion Property by the Lakefront Development Group, LLC ("Applicant")

1. **The applicant is requesting the property be rezoned from Agricultural to the Lakefront Zoning District.**

    a. The proposed development is not an allowable use in the Agricultural District.

    b. If the property is rezoned to the Lakefront Zoning District, there is the ability for the City Council to approve the proposed development set forth in the PUD Application.

    c. The zone change procedure is set forth in the City Zoning Code at Section 350-27(a).

    d. City Council was obligated to refer this request to the Planning Board for report and recommendation, which it did at the June 2nd Council Meeting.

    e. The Planning Board recommend approval of the rezoning at its June 21st meeting.

    f. City Council must hold a public hearing on the zone change request, which is occurring on July 7th.

    g. The zone change to add the American Legion property to the Lakefront Zoning District would be accomplished through Ordinance No. 3 of 2021.

    h. The Ordinance, if passed, also confirms the ability of City Council to specify the mix of permitted uses and design standards that will be allowed in the approved PUD, which may deviate from Article III of the Zoning Code.

    i. City Council is obligated to complete the State Environmental Quality Review Act process. Details are noted under # 3.

    j. Council approved the first reading of the Ordinance at the June 23rd meeting, and the second reading is scheduled for July 7th.

2. **If City Council votes to approve the zone change to the Lakefront Zoning District, Council can then consider the PUD Application.**

a. The application sets forth a mix of residential and commercial uses. The Planned Residential Development ("PRD") of the PUD is located to the east of the property, with the Planned Commercial Development ("PCD") located on the western portion of the property.

b. The section of the Zoning Code that discussed the PUD process is found in Section 350, Article III and Article IV. The purpose of a PUD is to provide development flexibility from specified restrictions.

c. City Council will set forth its decision on the PUD Application in a Resolution. The Resolution should identify the overall uses allowed in the PRD and PCD in the PUD, as well as potential relief from design requirements set forth in the Zoning Code and any other conditions on the approval.

d. A draft Resolution for consideration by City Council has been prepared for consideration at the July 7th meeting, so that it can considered if the Ordinance passes. This draft Resolution may require amendments based on Council and public input at the July 7th meeting.

3. If the City Councils approves the PUD, the developer will then return to the Planning Board for Site Plan Approval.

a. The Planning Board will proceed through the traditional process for preliminary and final site plan approval to review the details associated with the project, as set forth in the Article III and Article IV.

b. As long as the development remains consistent with the intent of the Council PUD approval, there is no need for this project to return to the City Council.

4. Compliance with the State Environmental Quality Review Act ("SEQRA")

a. The City Council has acted as the lead agency for the overall project, (designated June 2nd), including the requested zone change, PUD Application, and is conducting a coordinated SEQRA review.

b. The applicant submitted Part 1 of the Environmental Assessment Form ("EAF"), as well as the following supplemental reports:

i. Phase 1 Archaeological Sensitivity Assessment and Survey (June 2021)
ii. Traffic Impact Study (June 2021)

c. The City Council is obligated to complete Parts 2 and 3 of the EAF.

   i. The Applicant prepared proposed Parts 2 and 3 EAF, which support the issuance of a Negative Declaration for the project.
   ii. City staff reviewed the Parts 2 and 3 of the EAF and agree with the conclusions.

d. If City Council agrees, it should accept the findings and issue a Negative Declaration at the July 7th meeting before voting on the Ordinance. A draft Resolution has been prepared for the Negative Declaration.

Recommended steps for the July 7, 2021 Meeting

1. Open and hold the two public hearings
    1. Note that these are related public hearings, but we technically need to hold one for each.
2. Review Parts 2 and 3 of the EAF and Consider the Negative Declaration SEQRA Resolution
3. Conduct a second reading of the Zone Change Ordinance to change the zoning to Lakefront Zoning District
4. Discuss any conditions that Council would like to include in the Resolution to Approve the PUD Application and vote to approve.

Lakefront Development Group, LLC

1000 Commerce Park Drive, Suite 501
Williamsport, PA 17701

TELEPHONE: (570) 505-3890 E-MAIL: jerry@pineridgecm.com

April 29, 2021

City Council of Geneva
47 Castle Street
Geneva, NY 14456

Re: 1115 Lochland Road, Geneva, NY (the "Project")

Dear City Council Members:

In connection with our anticipated development of 1115 Lochland Road (Tax Account 119.16-1-11), we would like to request this lot be rezoned to the Lakefront District for the purpose of developing a Planned Unit Development.

Regards,

Jerry Lariviere

JL/djb

PROJECT DESCRIPTION

1115 Lochland Road Mixed Use Development is a proposed waterfront development along the West bank of Seneca Lake in the City of Geneva, New York. The development is designed to evoke classic notions of community and place-making. As such, the developments of the waterfront, of the on-site green space and drives, and of the public roadway interface/neighborhood edge are primary functional and compositional elements.

The development blends together commercial and residential set-pieces that have been positioned on the site to maximize the enjoyment of shared views and amenities, while also providing appropriately porous separations between Use(s). The site has a lengthy history that celebrates public service and the armed services; this legacy will be retained and the mature trees that have witnessed this history will be preserved.

Residential townhomes for 57 families will be organized into appropriately scaled building blocks with 9 or 10 homes per structure. The homes are located along the middle area of the development and are organized into a neighborhood punctuated by indigenous greenspaces and family-oriented amenities like terraces and fire pits.

Ample off-street parking is included in this development with counts that will handle the needs of guests and residents, but parking that is arranged into parking pockets instead of parking lots.
Commercial building components are positioned along the west edge of the development and include a 125-room full services hotel and a 10,000 square foot restaurant. The hotel is attuned to the demographic expectations of area residents and City visitors alike. The destination restaurant features chef cuisine and a fine regional craft brewery.

On-site drives are designed for waterfront views, for efficient and safe vehicular circulation, and to maximize pedestrian and green space ratios. The waterfront edge along the east side of the development showcases a sunrise-viewing terrace promenade that graduates from the site down and towards the Lake and boat dock.

Rezoning Description
1115 Lochland Road
City of Geneva, County of Ontario

ALL THAT TRACT OR PARCEL OF LAND situate in the City of Geneva, County of Ontario, and State of New York, as shown on drawing entitled "Map of a Survey Lands of American Legion Winnek Post #396" prepared by BME Associates, having project number 20-0064, dated June 17, 2020, and being more particularly bounded and described as follows:

Commencing at a point on the eastern Right-of-Way of Lochland Road (NYS Rte. 14), said point being the common northwest corner of lands with Tax Account number 119.16-3-4 and the parcel to be rezoned, said point being the point or place of beginning; thence:

1. Continuing along the eastern Right-of-Way line of Lochland Road (NYS Rte. 14), along a bearing of N05°34'02" W, distance of 668.87 feet to a point; thence

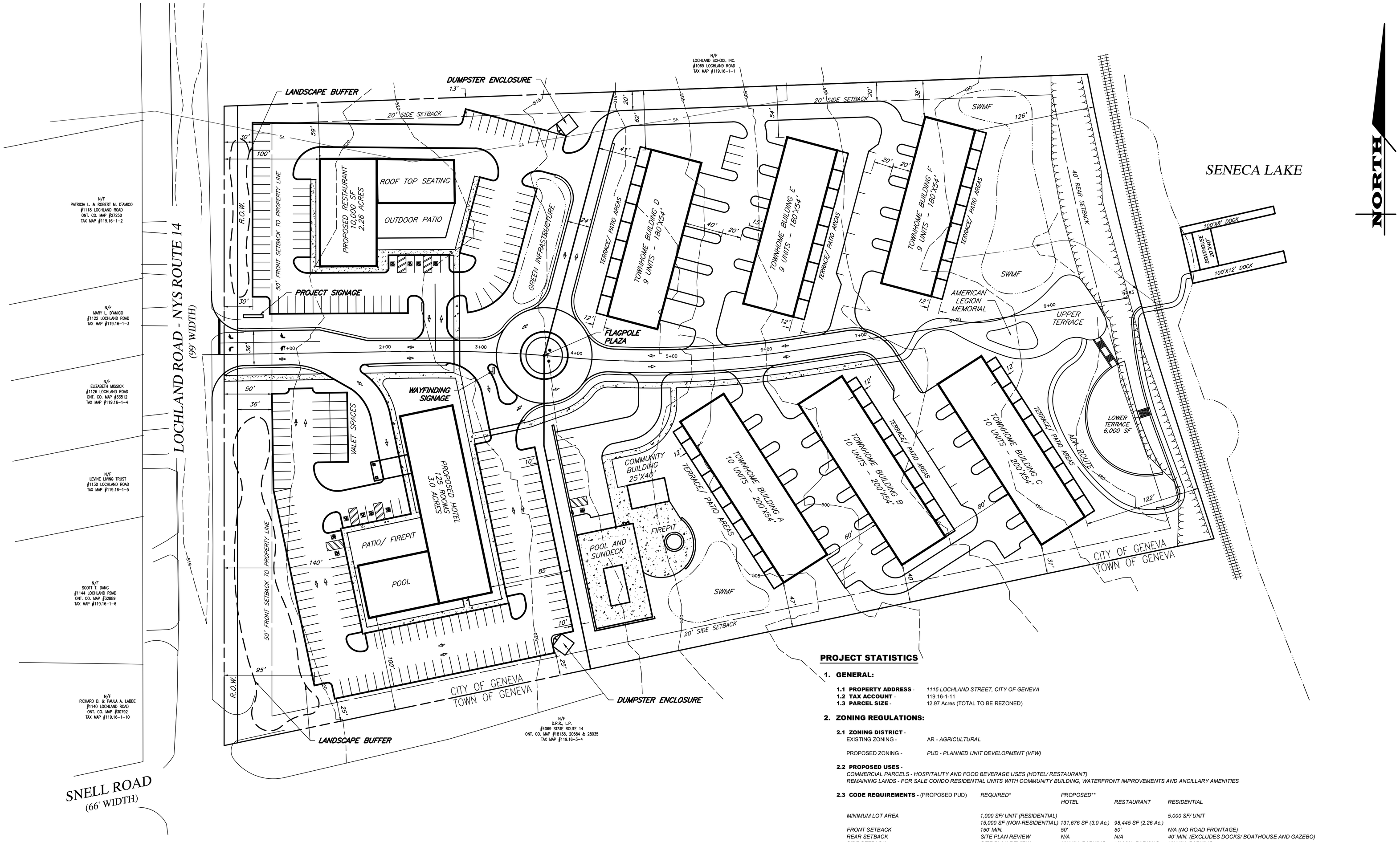
2. Turning right and continuing along the northern property line along a bearing of N82°19'16" E a distance of 903.42 feet to a point of curvature; thence

3. Turning right and continuing along the eastern property line along a curve to the left having a radius of 2897.79 feet a distance of 358.35 feet to a point; thence

4. Continuing along said property line on a bearing of S23°19'53" E a distance of 145.57 feet to a point; thence

5. Turning right and continuing along the southern property line on a bearing of S72°37'36" W a distance of 1057.59 feet to a point; said point being the point or place of beginning.

Intended to describe a boundary description of the lands to be rezoned having an area of 12.965 acres in the City of Geneva, County of Ontario.



PROJECT STATISTICS

1. GENERAL:

1.1 PROPERTY ADDRESS - *1115 LOCHLAND STREET, CITY OF GENEVA*
1.2 TAX ACCOUNT - 119.16-1-11
1.3 PARCEL SIZE - 12.97 Acres (TOTAL TO BE REZONED)

2. ZONING REGULATIONS:

2.1 ZONING DISTRICT -
EXISTING ZONING - *AR - AGRICULTURAL*

PROPOSED ZONING - *PUD - PLANNED UNIT DEVELOPMENT (VFW)*

2.2 PROPOSED USES -
COMMERCIAL PARCELS - HOSPITALITY AND FOOD BEVERAGE USES (HOTEL/ RESTAURANT)
REMAINING LANDS - FOR SALE CONDO RESIDENTIAL UNITS WITH COMMUNITY BUILDING, WATERFRONT IMPROVEMENTS AND ANCILLARY AMENITIES

2.3 CODE REQUIREMENTS - (PROPOSED PUD)

	*REQUIRED**	*PROPOSED**		
		HOTEL	*RESTAURANT*	*RESIDENTIAL*
MINIMUM LOT AREA	*1,000 SF/ UNIT (RESIDENTIAL)* *15,000 SF (NON-RESIDENTIAL)*	*131,676 SF (3.0 Ac.)*	*98,445 SF (2.26 Ac.)*	*5,000 SF/ UNIT*
FRONT SETBACK	*150' MIN.*	*50'*	*50'*	*N/A (NO ROAD FRONTAGE)*
REAR SETBACK	*SITE PLAN REVIEW*	*N/A*	*N/A*	*40' MIN. (EXCLUDES DOCKS/ BOATHOUSE AND GAZEBO)*
SIDE SETBACK	*SITE PLAN REVIEW*	*10' MIN. PARKING* *20' MIN. BUILDING*	*10' MIN. PARKING* *20' MIN. BUILDING*	*10' MIN. PARKING* *20' MIN. BUILDING*
LOT COVERAGE	*SITE PLAN REVIEW*	*70% MAX.*	*70% MAX.*	*70% MAX.*
OPEN SPACE (MIN.)	*30%*	+	+	+
# OF UNITS PER BUILDING	*12*	*N/A*	*N/A*	*10 MAX.*
BUILDING HEIGHT	*40' (3 STORIES)*	*60' (5 STORIES)*	*40'*	*40' (3 STORIES)*
*MIN. PARKING SPACES****	*1/ UNIT (RESIDENTIAL)* *4/1000 SF (RESTAURANT)* *1/ ROOM + .5/ EMPL. (HOTEL)*	*130-150 SPACES*	*80-90 SPACES*	*2.5-3.0/ UNIT (1 GARAGE SPACE/ UNIT MIN.)*

* UNDERLYING ZONING 'REQUIRED' ITEMS ARE REFERENCED TO THE CITY OF GENEVA DRAFT 2020 ZONING CODE UPDATE FOR THE PARCEL - (MU-H) MIXED USE HOSPITALITY AND APPLIES TO EXTERIOR PROPERTY LINES ONLY (NOT INTERIOR)
** PROPOSED PUD REGULATIONS
***NO PARKING SPACES ALLOWED IN FRONT YARD - PROPOSED TO BE ALLOWED IN PUD
\+ THE PROPOSED SITE PLAN IS PART OF THE PUD REZONING AND THEREFORE ALL SPACE NOT PROPOSED FOR DEVELOPMENT IS USEABLE AS OPEN SPACE

3. SITE:

1.1 WETLANDS - NO WETLANDS PRESENT ON THE SITE.

1.2 FLOODPLAIN - FLOODPLAIN ASSOCIATED WITH SENECA LAKE - ZONE A3 ELEVATION 449 NGVD 1929, FLOOD PANEL 360599002B DATED APRIL 15, 1982

1.3 ROADWAYS - ALL ROADWAYS WITHIN THE PROJECT WILL BE PRIVATE AND MAINTAINED BY THE OWNERS OF THE PROPERTIES OR A SUBSIDIARY.

1.4 UTILITIES:
1. WATER MAINS AND HYDRANTS ARE PROPOSED TO BE OWNED AND MAINTAINED BY THE CITY OF GENEVA. THE PROPERTY IS CURRENTLY SERVICED BY THE WATER DEPARTMENT AND IS WITHIN AN EXISTING DISTRICT.
2. SANITARY SEWER IS PROPOSED TO BE OWNED AND MAINTAINED BY THE CITY OF GENEVA. THE PROPERTY IS CURRENTLY SERVICED BY THE WATER DEPARTMENT AND IS WITHIN AN EXISTING DISTRICT.
3. STORM SEWER WILL BE PRIVATE AND MAINTAINED BY THE OWNER
4. GAS AND ELECTRIC WILL BE OWNED AND MAINTAINED BY THE UTILITY OWNER

MARATHON ENGINEERING
ROCHESTER LOCATION
39 CASCADE DRIVE
ROCHESTER, NY 14614
585-458-7770
ITHACA LOCATION
840 HANSHAW RD, STE 12
ITHACA, NY 14850
607-241-2917
www.marathoneng.com

PLANNED UNIT DEVELOPMENT REZONING PLAN for 1115 LOCHLAND ROAD MIXED USE DEVELOPMENT

CITY OF GENEVA — ONTARIO COUNTY — STATE OF NEW YORK

JOB NO:	1250-21
SCALE:	1"=50'
DRAWN:	MPT
DESIGNED:	MPT
DATE:	04/28/21

REVISIONS

DATE	BY	REVISION

DRAWING TITLE:
OVERALL SITE PLAN

1 of 1 SHEET No:	C1.0 DRAWING No:
1250-21 JOB No:	

APPLICANT MATERIALS DATED 4/29/21

File: Z:\Engineering\Job Files\1250-21\Drawings\1250-21 Concept.dwg, Last saved: 4/28/2021, Plot Date: 4/28/2021, By: MTOMLINSON, Plot Style: ----

1115 LOCHLAND ROAD GENEVA, NY			
CITY OF GENEVA ZONING CODE	**ALLOWABLE (PER DRAFT ZONING CODE)**	**REQUESTED AMENDMENTS**	**PROPOSED 4.28.21**
USE			
MULTI FAMILY DWELLING	UP TO 12 UNITS PER BLDG	**SPR**	**57 UNITS (10 MAX PER BLDG.)**
BULK			
HEIGHT	40' AND 3 STORIES	**60' AND 5 STORIES**	**60', 5 STORIES**
FRONT YARD	150'	**SPR**	**50' with landscape buffer**
SIDE YARD	SPR	NO AMENDMENTS	**10' MIN. PARKING, 20' MIN BLDG. ** EXTERIOR LOT LINES ONLY**
REAR YARD	SPR	NO AMENDMENTS	**40' EXEMPTING docks/gazebos/boathouses etc**
MAX. LOT COVERAGE	SPR	NO AMENDMENTS	**70%**
MIN. OPEN SPACE	30%	SPR	**15%**
MIN. LOT AREA NON RESIDENTIAL (SF)	15,000	NO AMENDMENTS	
MIN. LOT SIZE (RESIDENTIAL)	1000 SF/UNIT	**5,000 SF/UNIT**	**5,000 SF/UNIT**

PARKING			
MINIMUM PARKING SPOTS			
BREWERY	3 PER 1,000 SF	NO AMENDMENTS	**80-90 SPOTS**
RESTAURANT	4 PER 1,000SF	NO AMENDMENTS	**80-90 SPOTS**
LODGING	1 PER GUEST ROOM + .5 PER EMPLOYEE	NO AMENDMENTS	**150 SPOTS**
DWELLING	1 PER UNIT	NO AMENDMENTS	**90-150 SPOTS**
MAXIMUM NUMBER OF SPOTS	< 125% OF MIN.	**SPR**	**320-390 SPOTS**
LOCATION OF PARKING	PROHIBITED IN FRONT YARD	**SPR**	**IN FRONT YARD WITH LANDSCAPE BUFFER**
ACCESS TO PARKING	DRIVEWAYS MUST BE AT LEAST 60' FROM INTERSECTIONS AT PUBLIC STREETS	**SPR**	**60'**
BICYCLE PARKING	10% OF REQ. PARKING OR MAX 10 SPOTS	NO AMENDMENTS	**10 SPOTS**

AUTHORITIES HAVING JURISDICTION

The Team has engaged with the following Authorities Having Jurisdiction. A summary of our actions to date and plan for approvals is included below.

Ontario County

Submission on 4.29.21 in advance of public hearing

City of Geneva

Preparing complete Planning Board Submittal

Army Corp of Engineers - Lake Seneca

Seeking approval for dock(s) and boat house.

New York State Department of Transportation – Lochland Road

Seeking Approval for ingress and egress to Lochland Road (State highway 14)

Norfolk Southern Railroad Co – Railroad Crossing

Seeking approval for grade crossing at the railroad track adjacent to Seneca Lake.

June 17, 2021

The City of Geneva
Planning Board
47 Castle Street
Geneva, NY 14456

RE: Proposed Planned Unit Development ("PUD") at
1115 Lochland Road (NYS-14)
Geneva, New York (the "Project")
(also presently known as the American Legion property)

Dear Board Members:

This letter is submitted to you as part of an application requesting rezoning of the above-referenced property, known as the American Legion Property, to the Lakefront PUD zoning district for the proposed redevelopment of the property with a mixed-use project, as described in an application submitted to City Council and in this submission to you.

City Council reviewed the application at their meeting on June 2, 2021. The project was well received and referred to the Planning Board to continue the process set forth in the Zoning Code for the proposed rezoning. In accordance with the Zoning Code, we request that the Planning Board review and approve the sketch plan, generate a favorable report to City Council in support of the sketch plan, and issue a favorable recommendation that the application for rezoning to the Lakefront PUD be granted by the City Council, as required for the project to move forward.

Should City Council grant the rezoning requested, we will then submit an application for site plan approval to the Planning Board. As you know, at that time, the site plan will include full engineering details.

With respect to the above-referenced proposed PUD Project, we respectfully request the Planning Board review the enclosed and attached materials in support of the application for the proposed project and PUD rezoning.

According to Section 350-10.B(3)(a) of the City of Geneva Zoning Code, we note that the Planning Board is tasked with preparing a report to the City Council that includes pertinent findings as part of the sketch plan approval process. The

proposed sketch plan satisfies the considerations to be addressed in the Planning Board report:

1. The proposal conforms to the City Master Plan.

   The City of Geneva Comprehensive Plan (August 2016) considers several priorities, one of which is improving the quality of the City's housing stock. Up to 60 market-rate townhomes will contribute towards that goal. The proposal is also consistent with the draft zoning regulations and map.

2. The proposal meets the intent and objective of the planned unit development as expressed in this article.

   The proposed Development provides a variety of residential and non-residential activities in a planned controlled environment while providing employment opportunities and enhancements to the tax base.

3. The proposal meets all the general requirements of this article.

   The proposal substantially conforms to the general requirements of Article III, as demonstrated by the conceptual sketch plan and discussed below. Any Code deviations are noted on the plan and consistent with the intent of the PUD zoning below in this letter.

4. The proposal is conceptually sound in that it meets a community need and it conforms to accepted design principles in the proposed functional roadway system, land use configuration, open space system, drainage system, and the like.

   The proposed Development meets a community need for new housing stock as well as hospitality, food and beverage. As evidenced by the sketch plan, the project design reflects accepted design principles throughout, providing thoughtful layout of the roadway system, configuration and orientation of the various uses on the property, inclusion of quality open space, addressing drainage, and other elements of the plan. Further detail will be included as part of the required site plan application.

5. There are adequate services and utilities available, or proposed to be made available, in the construction of the Development.

   The applicant has spoken to the Utility Authorities and understands there are adequate services available.

Note that the proposed Project is an undertaking of Lakeside Development Group, LLC, and its partners, who will be referred to in this document as the Developer. The Project includes no more than 60 private townhome residences

and related residential amenities, including off-street parking for all residents and their guests. The townhomes will be positioned along the eastern portion of the property and will be grouped into no more than six (6) residential buildings.

The Project also includes two (2) commercial uses along Lochland Road, which is the western portion of the property. We note that Lochland Road is also NYS Highway 14. The commercial buildings will house a restaurant/micro-brewery and a 125-room hotel of not more than five (5) floors. Off-street parking that is adequate to satisfy hotel and restaurant vehicular traffic will also be provided on the property.

To support the proposed PUD application and to assist the Planning Board in its review, we include the following summary of all required documentation for Planning Board consideration of the proposed PUD rezoning required by Section 350-10C(1) of the City of Geneva zoning code and preparation of the above-mentioned report:

(a) Location and extent of all proposed land use, including open space, and an area map showing the parcel under consideration and all properties, subdivisions, streets, zoning classifications and easements within 500 feet of the parcel.

A neighborhood map is attached with this letter showing parcels subdivisions and streets within 500 feet of the parcel as requested. A copy of the existing and draft zoning maps showing zoning classifications within the same radius are also attached for consideration.

(b) Documentation that the applicant's particular mix of land uses meets existing community demands. Documentation may be in the form of specific studies or reports initiated by the applicant or in the form of references to existing studies or reports relevant to the project in question.

The proposed PUD at 1115 Lochland Road (NYS Route 14) overlooks Seneca Lake and is located within the City of Geneva, New York. The Project is designed to be relevant to existing City character by evoking classic notions of community and place-making. The development of waterfront views, of on-site green space and drives, and of a public roadway interface/neighborhood edge are primary functional and compositional elements.

The Development blends together commercial and residential set-pieces that have been positioned on the site to maximize the enjoyment of shared views and amenities, while also providing appropriate separations between uses. The Development is compatible with the City of Geneva Master Plan and draft zoning guidelines and each use will be a betterment to the community by increasing the availability of services and residential opportunities for the City.

The property has a lengthy history that celebrates public service and the armed services. This legacy will be retained and featured on the site. Many of the mature trees that have witnessed this history will also be preserved along the perimeter of the property.

Residential townhomes will be organized into appropriately scaled building blocks. The homes are located along the eastern or lakefront portion of the Development and are organized into a neighborhood punctuated by indigenous greenspaces and family-oriented amenities such as lakefront terraces and fire pits with access to the lakefront and personal watercraft, fishing and swimming from the proposed dock.

Ample off-street parking is included in this Development that will satisfy the vehicular parking needs of guests and residents. Commercial uses will be positioned along the west edge of the Development and include a full-service hotel and a 10,000 square foot restaurant that may also feature an interior micro-brewery. The hotel is attuned to the demographic expectations of area residents and visitors alike. The destination restaurant features fine cuisine and beverages made potentially by a regional craft brewer.

On-site drives are designed for efficient and safe vehicular circulation, and to maximize pedestrian and green space ratios. The waterfront edge along the east side of the Development may showcase a sunrise-viewing terrace promenade.

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

All roadways internal to the site will be privately owned and maintained. Common access easements will be placed over the private roadway network to ensure free flow of traffic for customers and residents.

Points of access and egress from existing public rights-of-way are shown on the submitted sketch plan. Any modifications to the location and/or configuration will be provided to the Planning Board as the Project moves to final design and through agency review.

(d) Specific definition of all uses, indicating the number of residential units and the density of each residential housing type, as well as the overall Project density.

All proposed uses (hotel, restaurant/brewery, and *for sale* condo/townhome units) are shown on the submitted Concept Plan. The Concept Plan also shows the overall Project density and bulk zoning requirements proposed for this mixed-use PUD.

(e) The overall water and sanitary sewer system with proposed points of attachment to existing systems, and the proposed stormwater drainage system and its relation to existing systems.

The City of Geneva owns and maintains a 12" water main within the Lochland Street right-of-way. A dedicated water main extension will be extended through the proposed Project with dedicated hydrants. Backflow prevention will be provided within the proposed buildings as required by the New York State Department of Health.

The City of Geneva owns and maintains an 8" dedicated sanitary sewer along the northwestern portion of the property. The proposed Project will be serviced by a dedicated gravity sanitary sewer extension for the uphill commercial and residential properties and private lift stations for the residential buildings closest to the lake that cannot be served by gravity. These lift stations will be owned and maintained by the homeowner's association.

Estimated water and sanitary flows for the proposed Project are included in the Long Form EAF submitted to the City of Geneva. The Project will comply with all NYS Fire Code, City, NYSDEC and NYSHD requirements for water and sanitary service.

(f) Description of the manner in which any areas that are not to become publicly owned are to be maintained, including open space, streets, lighting and others, according to the proposals.

Townhome residents and commercial operators will be responsible for the maintenance of shared amenities, which include common areas, open spaces, sidewalks and paved driveways, and lighting of streets and yards. The commercial operators will individually bear responsibility for maintenance of the related properties, but the townhome residents will be organized into a Homeowners Association (HOA), or similar group, to share enjoyment of and responsibility for these shared amenities.

(g) If the Development is to be phased, a description and graphic representation of the phasing of the entire proposal in terms of length of time, type and number of units or activities completed per phase.

Although the property development may be phased for purposes of financing and/or construction durations, the Developer intends to complete all parts of the Development during a 24-36 month period with the first occupancies occurring in Spring of 2023 and with all subsequent occupancies happening incrementally as each is completed.

(h) A description of any covenants, grants of easements or other restrictions proposed to be imposed upon the use of the land, buildings or structures, including proposed easements for public utilities.

There are no intentions of adding further encumbrances (by way of covenants, restriction, nor easements) to the property, except as necessary to provide for public utilities serving the properties and for reciprocal cross access to the townhome development for purposes of emergency vehicles, lake access and common amenity enjoyment.

(i) Documentation as required by the City Council of the applicant's ability to complete the proposed planned unit development. The applicant should be aware that at all subsequent stages, plans must be prepared by professionally competent site planners.

The Developer has the confidence, the expertise and the funding that is necessary to complete the proposed PUD. In addition, the Developer has assembled and has retained supporting professionals who have subject matter expertise and proven experience.

The Developer, and its professional team, have several decades of experience in site development, design and in construction practice. Upon approval, the Developer intends to immediately start work on the Project so that the Project can be a benefit to the community.

(j) A Draft Environmental Impact Statement (DEIS) and/or environmental assessment form where required by operation of the State Environmental Quality Review Act (SEQRA). Such application shall not be considered complete until any DEIS required shall have been accepted by the lead agency.

A long form EAF has been submitted to the City of Geneva in addition to supplemental information including a traffic study, archaeological study and graphics demonstrating the Projects amendments to existing viewsheds. These items address any potential impacts identified by the SEQRA lead agency and no DEIS is anticipated to be necessary.

We look forward to presenting the project to you and answering any questions you may have at your meeting on Monday, June 21, 2021. We thank you for your time and consideration.

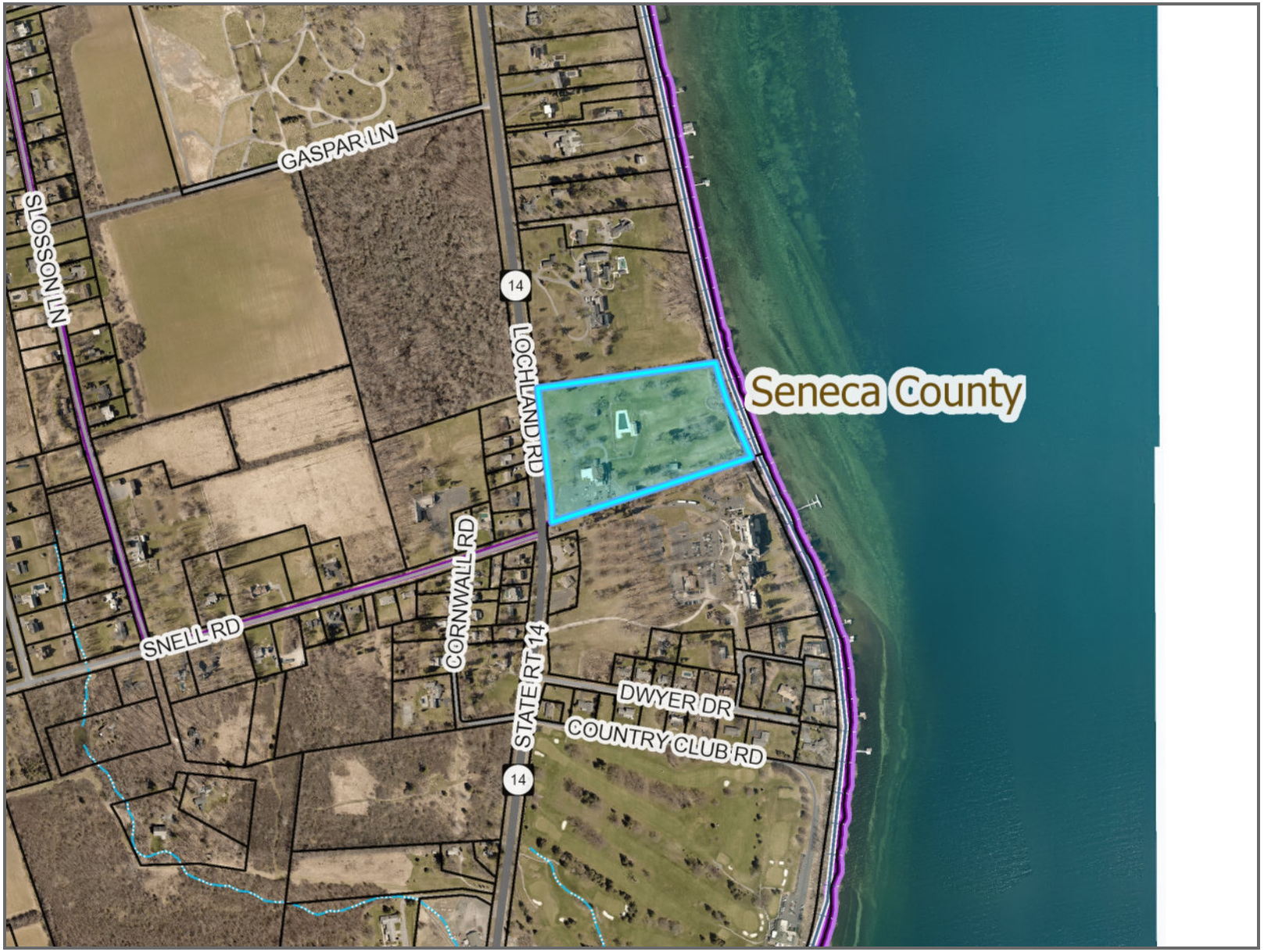
Respectfully submitted,

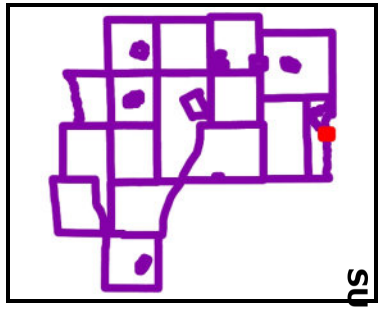
Jerry Lariviere

{8510128:2 }

Attachments: 1250-Neighborhood Map dated June 7, 2021
Concept Site Plan dated June 21, 2021
City of Geneva Zoning Map (Adopted) dated 2014
City of Geneva Zoning Map (Draft) dated May 28, 2021

1250-Neighborhood Map





Legend

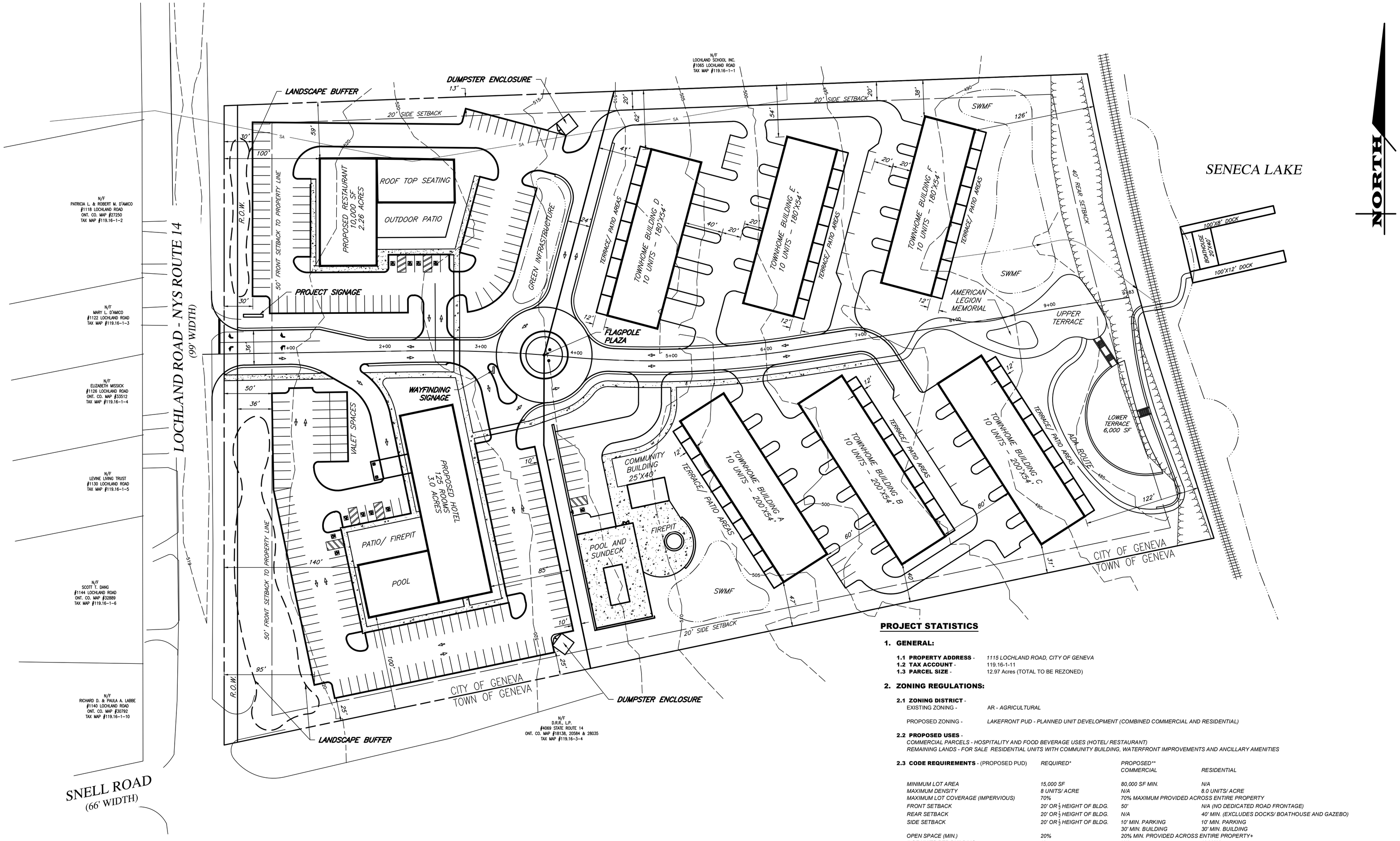
- Tax Parcels
- Streets
  - Interstate
  - State or US Routes
  - County Roads
  - Local Public Roads
  - Private Roads
- Railroads
- Streams
- Municipal Boundaries
- Finger Lakes Region

Map Created: 6/07/2021

Notes

2,000.0 0 1,000.00 2,000.0 Feet

1: 12,000



PROJECT STATISTICS

1. GENERAL:

1.1 PROPERTY ADDRESS - *1115 LOCHLAND ROAD, CITY OF GENEVA*
1.2 TAX ACCOUNT - 119.16-1-11
1.3 PARCEL SIZE - 12.97 Acres (TOTAL TO BE REZONED)

2. ZONING REGULATIONS:

2.1 ZONING DISTRICT -
EXISTING ZONING - *AR - AGRICULTURAL*

PROPOSED ZONING - *LAKEFRONT PUD - PLANNED UNIT DEVELOPMENT (COMBINED COMMERCIAL AND RESIDENTIAL)*

2.2 PROPOSED USES -
COMMERCIAL PARCELS - HOSPITALITY AND FOOD BEVERAGE USES (HOTEL/ RESTAURANT)
REMAINING LANDS - FOR SALE RESIDENTIAL UNITS WITH COMMUNITY BUILDING, WATERFRONT IMPROVEMENTS AND ANCILLARY AMENITIES

2.3 CODE REQUIREMENTS - (PROPOSED PUD)

	*REQUIRED**	*PROPOSED** COMMERCIAL	RESIDENTIAL
MINIMUM LOT AREA	*15,000 SF*	*80,000 SF MIN.*	*N/A*
MAXIMUM DENSITY	*8 UNITS/ ACRE*	*N/A*	*8.0 UNITS/ ACRE*
MAXIMUM LOT COVERAGE (IMPERVIOUS)	*70%*	*70% MAXIMUM PROVIDED ACROSS ENTIRE PROPERTY*	
FRONT SETBACK	*20' OR ½ HEIGHT OF BLDG.*	*50'*	*N/A (NO DEDICATED ROAD FRONTAGE)*
REAR SETBACK	*20' OR ½ HEIGHT OF BLDG.*	*N/A*	*40' MIN. (EXCLUDES DOCKS/ BOATHOUSE AND GAZEBO)*
SIDE SETBACK	*20' OR ½ HEIGHT OF BLDG.*	*10' MIN. PARKING* *30' MIN. BUILDING*	*10' MIN. PARKING* *30' MIN. BUILDING*
OPEN SPACE (MIN.)	*20%*	*20% MIN. PROVIDED ACROSS ENTIRE PROPERTY+*	
# OF UNITS PER BUILDING	*12*	*N/A*	*12 MAX.*
BUILDING HEIGHT	*72' (6 STORIES) MAX.*	*72' (6 STORIES)*	*50' - 4 STORIES (MAX.)*
MIN. PARKING SPACES	*2.5/ DWELLING (RESIDENTIAL)* *COMMUNITY CENTER (1/200 SF)* *13/1000 NET SF (RESTAURANT)* *1 SPACE/ SLEEPING UNIT*	*85 SPACES* *145 SPACES*	*2.0/ DWELLING MIN. (1 GARAGE SPACE EACH)* *5 REQ./ 9 PROVIDED*
MAX. LIGHTPOLE HEIGHT	*30'*	*20'*	*20'*

BULK ZONING NOTES:
* ALL SETBACKS ARE ANALYZED FOR EXTERNAL PROPERTY LINES - THE INTERIOR PROPERTY LINES ARE ARE PROPOSED AS PART OF THE PROPOSED PUD AND ARE NOT INCLUDED FOR BULK ZONING PURPOSES.
+ THE PROPOSED SITE PLAN IS PART OF THE PUD REZONING AND THEREFORE ALL SPACE NOT PROPOSED FOR DEVELOPMENT IS USEABLE AS OPEN SPACE (DEVELOPED AND UN-DEVELOPED)
**PROPOSED COMBINED PUD REGULATIONS
- NO RESTRICTIONS ARE PROPOSED FOR THE TYPE OF RESIDENTIAL (E.G. 65% OF ANY ONE TYPE - MULTI-FAMILY OR ATTACHED SINGLE FAMILY)

3. SITE:

1.1 WETLANDS - NO WETLANDS PRESENT ON THE SITE.

1.2 FLOODPLAIN - FLOODPLAIN ASSOCIATED WITH SENECA LAKE - ZONE A3 ELEVATION 449 NGVD 1929, FLOOD PANEL 360599002B DATED APRIL 15, 1982

1.3 ROADWAYS - ALL ROADWAYS WITHIN THE PROJECT WILL BE PRIVATE AND MAINTAINED BY THE OWNERS OF THE PROPERTIES OR A SUBSIDIARY.

1.4 UTILITIES:
1. WATER MAINS AND HYDRANTS ARE PROPOSED TO BE OWNED AND MAINTAINED BY THE CITY OF GENEVA. THE PROPERTY IS CURRENTLY SERVICED BY THE WATER DEPARTMENT AND IS WITHIN AN EXISTING DISTRICT.
2. SANITARY SEWER IS PROPOSED TO BE OWNED AND MAINTAINED BY THE CITY OF GENEVA. THE PROPERTY IS CURRENTLY SERVICED BY THE WATER DEPARTMENT AND IS WITHIN AN EXISTING DISTRICT.
3. STORM SEWER WILL BE PRIVATE AND MAINTAINED BY THE OWNERS
4. GAS AND ELECTRIC WILL BE OWNED AND MAINTAINED BY THE UTILITY OWNER

MARATHON ENGINEERING
ROCHESTER LOCATION
39 CASCADE DRIVE
ROCHESTER, NY 14614
585-458-7770
ITHACA LOCATION
840 HANSHAW RD, STE 12
ITHACA, NY 14850
607-241-2917
www.marathoneng.com

PLANNED UNIT DEVELOPMENT REZONING PLAN for 1115 LOCHLAND ROAD MIXED USE DEVELOPMENT

CITY OF GENEVA | ONTARIO COUNTY | STATE OF NEW YORK

JOB NO:	1250-21
SCALE:	1"=50'
DRAWN:	MPT
DESIGNED:	MPT
DATE:	06/21/21

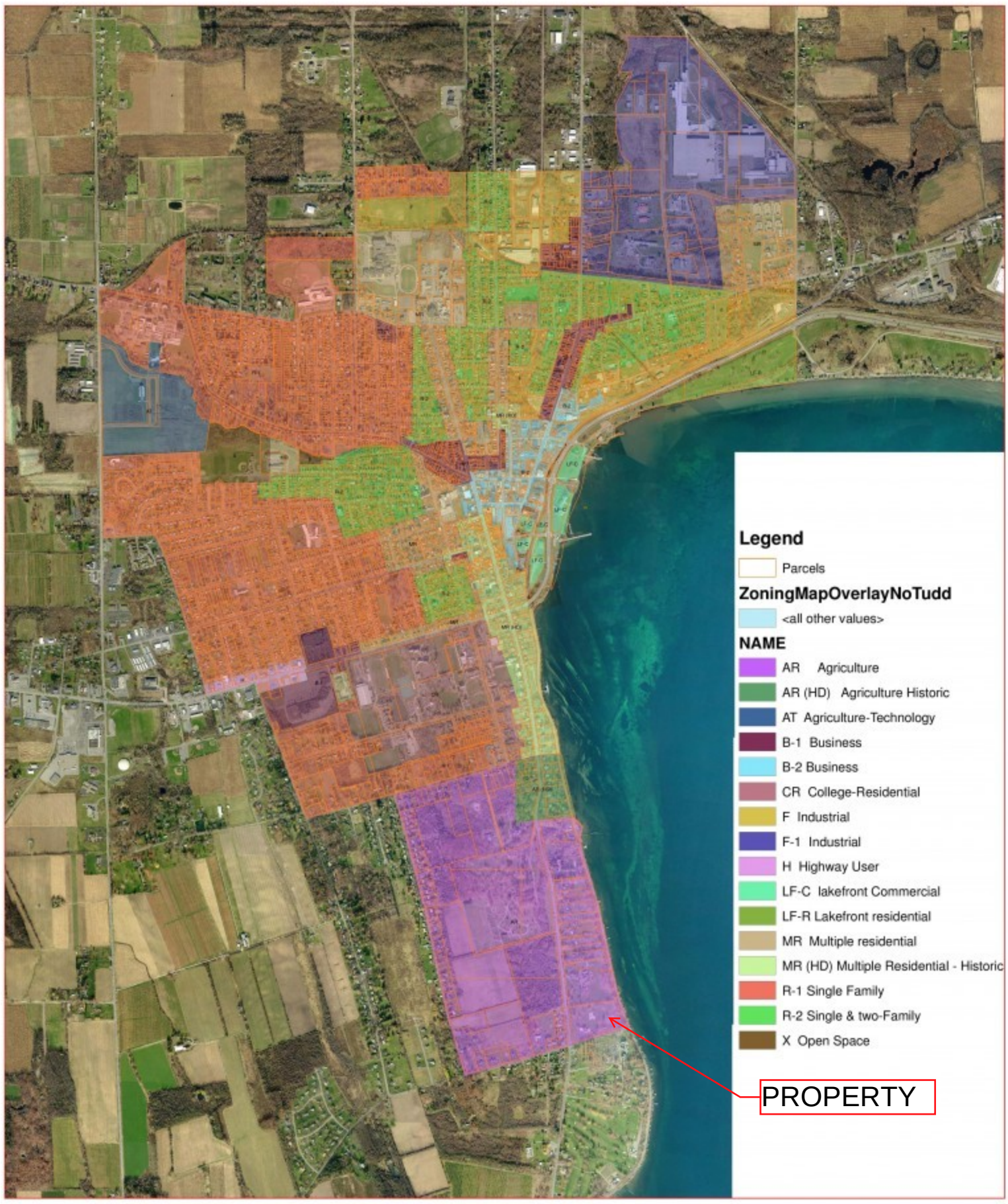
REVISIONS

DATE	BY	REVISION

DRAWING TITLE:
SKETCH PLAN

1 of 1 SHEET No:	C1.0
1250-21 JOB No:	DRAWING No:

File: Z:\Engineering\Job Files\1250-21\Drawings\1250-21 Concept.dwg, Last saved: 6/15/2021, Plot Date: 6/16/2021, By: MTOMLINSON, Plot Style: ----



GENEVA
UNIQUELY URBAN

CITY OF GENEVA

Zoning Map

REVISED DRAFT
MAY 28, 2021

Zoning Districts

- Large Lot Residential (LLR)
- Low Density Residential (LDR)
- Medium Density Residential (MDR)
- Mixed Residential (MR)
- Neighborhood Business (NB)
- Central Business (CB)
- Central Business - 5 Story (CB-5)
- Gateway Business (GB)
- Mixed Use - Hospitality (MU-H)
- Mixed Use - Campus (MU-C)
- Mixed Use - Industry (MU-I)
- Agricultural Technology (AT)
- Open Space (OS)
- Historic Overlay (HO)

N

0 1000 2000 3000 ft

6/30/21

REFERRAL TO COUNCIL – POSITIVE RECOMMENDATION OF APPROVAL - ENGINEERING DEPT.

Dear City Council,

This letter is being forwarded to the Council as a Positive Recommendation of Approval of the submitted plan for Development of the current American Legion property, known as 1115 Lochland Road. After reviewing the submitted documents, including the Traffic Study completed by SRF indicating that the current road infrastructure is more than capable of handling any increase in traffic and the design of the main entrance being moved north of Snell Road and the Belhurst Castle to improve traffic safety of not only the development, but the traffic along Rte 14.

I have consulted with Will Czaplak, Chief Operator of the Waste Water Treatment Plant, to confirm that our Waste Water Facility is capable of handling any increase in volume of the Sanitary system according to the study conducted by MRB Group in 2018. Also, our Water Infrastructure is plenty capable of supplying the necessary pressure and volume to this proposed development, with the water transmission main just being upgraded a few years ago and runs right in front of this property along Lochland Road, allowing for fairly simple connections. This is a good opportunity to increase water revenue as well.

The road network within this Development will not be dedicated roads, so will not require any support from the Public Works Dept, snow plowing etc.

I have also confirmed with the Fire Chief, that our current Ladder truck will be able to supply support to the proposed 5 story hotel, as the Ladder is able reach to the 100’ height.

Thanks For your Consideration,

Office of Development Services

CITY HALL- 47 CASTLE STREET- GENEVA, NEW YORK 14456
(315) 789-3101 - FAX (315) 789-8373 - nlb@geneva.ny.us - www.geneva.ny.us

Review of the Application for a Zone Change from Agricultural Residential to the Lakefront Zoning District and application to allow the development of 1115 Lochland Road, Tax ID # 119.16-3-4 ("Property") as a Planned Unit Development ("PUD")

June 21, 2021

The Planning Board reviewed the Application requesting approval to rezone 1115 Lochland Road, Tax ID # 119.16-3-4 from Agricultural Residential to Lakefront Zoning District to facilitate the development of the property as a Lakefront Planned Unit Development (PUD) for the Planned Residential Development (PRD) and Commercial Planned Development (CPD) as set forth in the application materials.

First, the City of Geneva Planning Board voted unanimously to recommend that the City Council rezone the Property to Lakefront Zoning District.

Second, the City of Geneva Planning Board reviewed the PUD sketch plan, as well as the supporting information presented in the June 17, 2021 package related to the considerations of the Planning Board in reviewing the sketch plan. The City of Geneva Planning Board voted unanimously to provide a favorable recommendation of that sketch plan to City Council based upon the criteria and details set forth in the June 17, 2021 application package.

Finally, the Planning Board reviewed the details provided in the overall PUD Application and voted unanimously that they are in agreement with the PUD concepts set forth in the application. The Planning Board looks forward to reviewing the project details it will review as part of the Site Plan review process should City Council approve the zone change and PUD application. Specifically, the Planning Board discussed, among other project details, the anticipated maximum height of the buildings, the management of stormwater and drainage as part of the development, building details including whether units will be constructed with accommodations for "aging in place".

ONTARIO COUNTY PLANNING BOARD

Referrals for Review at the: **Coordinated Review Committee Meeting – Cancelled**

County Planning Board Meeting May 12, 2021 at 7:00pm Virtual Meeting Click Join Meeting hyperlink below

Telephone: 585-396-4455

This document will serve as both the ***draft*** minutes for the Ontario County Planning Board and as the **Official Notice of Findings and Decision** for the applications reviewed by the CPB. It can also be viewed at the Ontario County Planning Department Website http://www.co.ontario.ny.us/index.aspx?nid=516

Action Key - Recommended referring body action: A = approve, A-M = Approve with Modification, D = disapproval

Referral No	Municipality	Referring Board	Applicant	Application Type	Class/Action	Page
87 - 2021	Town of Geneva	Planning Board	Lewis, Anthony	Site Plan	2/A	3
88- 2021	Town of Canandiagua	Planning Board	Venezia Associates	Site Plan	1	4
89 - 2021	Town of Canandaigua	Planning Board	Marks, Brennan	Site Plan	1	5
90 - 2021	Town of Canandaigua	Zoning Board of Appeals	Steele, Sue	Area Variance	AR 1	5
91 - 2021	Town of Canandaigua	Zoning Board of Appeals	Bushen, Lucas	Area Variance	AR 1	6
92 - 2021	Town of Farmington	Planning Board	Marchenese, Robert	Site Plan	1	7
93 - 2021	Town of Richmond	Town Board	Town of Richmond	Local Law	2/A	7
94 - 2021	Town of Farmington	Planning Board	Loomis Road Industrial Park, LLC	Subdivision	1	7
95- 2021	Village of Naples	Planning Board	John Bagley-Jay Ladue LLC	Site Plan	1	8
96 - 2021	Town of Victor	Planning Board	Crown Castle	Special Use Permit	1	8
97 - 2021	Town of Geneva	Planning Board	Wine Valley Holdings LLC	Site Plan	2/A	9
98- 2021	Town of East Bloomfield	Planning Board	Sulli,Anthony	Site Plan	1	9
98.1 - 2021	Town of East Bloomfield	Planning Board	Sulli, Anthony	Special Use Permit	1	9
99 - 2021	Village of Bloomfield	Planning Board	Duval, Ryan & Kim	Site Plan	1	10
99.1 - 2021	Village of Bloomfield	Planning Board	Duvan, Ryan & Kim	Special Use Permit	1	10
100 - 2021	City of Geneva	Planning Board	Thrasher, James	Site Plan	2/A	11
101 - 2021	City of Geneva	City Council	WJCA	Map Amendment	2/A	12
101.1 - 2021	City of Geneva	City Council	WJCA	Text Amendment	Withdrawn	12
102- 2021	City of Canandaigua	Zoning Board of Appeals	Brunelle, Christian	Area Variance	1	14
102.1- 2021	City of Canandaigua	Planning Board	Brunelle, Christian	Site Plan	1	14
103- 2021	Town of Geneva	Planning Board	Fitzgerald, James	Site Plan	1	15

Linda Phillips is inviting you to a scheduled Webex meeting.

Wednesday, May 12, 2021

7:00 PM | (UTC-04:00) Eastern Time (US & Canada) | 2 hrs 30 mins

Board Motion: To retain referral 100-2021 as a class 2 and return it to the local board with comments and a recommendation of approval. **Motion made by:** Paul Passavant **Seconded by:** Glen Wilkes
Vote: 15 in favor, 0 opposed, 0 abstentions **Motion carried.**

101 - 2021 City of Geneva City Council Map Amendment -Class 2 &
101.1 Text Amendment- Withdrawn
Zoning map and text amendment to change zoning of American Legion Winnek Post 396 at 1115 Lochland Road/SR 14 in the City of Geneva from AR to Lakefront PUD to accommodate 57 for-sale townhouses, a 125 room hotel, and a 10,000 SF restaurant. Text amendment to permit hotel use in the proposed PUD.
Applicant: WJCA
Property Owner: American Legion Winnek Post 396
Tax Map Parcel No: 119.16-1-11
https://www.co.ontario.ny.us/DocumentCenter/View/29007/101-2021-Aerial
https://www.co.ontario.ny.us/DocumentCenter/View/29008/101-2021-1250-21-Concept-Plan

The 13 acre site is currently zoned AR which allows detached single family dwellings on 20,000 SF lots, agriculture, places of worship, cultural facilities and hospitals or other institutional or philanthropic uses. The site is located along Seneca Lake as the south end of the City of Geneva between Lochland, a residential and day program for adults with intellectual and developmental disabilities, and Belhurst Castle and Winery located in the Town of Geneva. Both sites retain substantial undeveloped green space.

The City of Geneva is in the midst of a comprehensive zoning update. Draft zoning map and text materials indicate this 13 acre site, as well land in the existing Lakefront District at the north end of the lake, will be included in the proposed Mixed Use- Hospitality (MU-H) district. The intent of the proposed MU-H district is to provide a variety of hotel, restaurant, and entertainment uses to support the local tourism industry. The district envisions development that respects Seneca Lake view sheds, uses sustainable development practices, and incorporates road setbacks, orientation, and scale that allow development to be built into the landscape.

The June 16, 2020 draft zoning district regulations for the MU-H district list multi-family dwelling, hotel, and restaurant uses as permitted uses. Setbacks, lot coverage, and open space requirements are indicated as determined during site plan review. The proposed maximum building height in the proposed MU-H district is 40' or three stories.

For development of this site to proceed under existing zoning, the applicant has requested rezoning to Lakefront District (LD) and review under the Lakefront District Planned Unit Development (LD PUD) Regulations. Hotel and restaurant uses are included in the definition of retail sales and service and allowed a part of a commercial LD PUD.

The City of Geneva planned unit development regulations are only applicable within the LD with a minimum LD PUD lot size of 5 acres. The intent and objectives of the LD PUD regulations are to guide the development of residential or commercial LD PUDs that among other things increase the tax base and provide a variety of residential settings, usable open space and recreation areas, and a mix of uses that enhance job creation and retention.

The procedure for review of a LD PUD involves planning board review of a conceptual sketch plan and compliance with general LD PUD requirements before directing the preparation of the project plan narrative and graphic documentation. Once the planning board is satisfied that the project plan meets the LD PUD requirements, City Council may review and act on the re-zoning to LD PUD. Then the planning board is responsible for preliminary and final site plan review.

The proposed project includes 57 single family attached residential units on 7.8 acres for a residential density of just over 7.3 units per acre when 8 units per acre is allowed. The proposed five story hotel on 3 acres with a building height of 60' is less than the maximum height of 72' or 6 stories allowed in the existing LD at the north end of the Lake. The applicant indicates 130 to 150 parking spaces will be provided for the hotel and 80 to 90 parking spaces will be provided for the 10,000 SF restaurant/brewery. LD parking requirements are 1.5 spaces per single family attached dwelling, 1 space per hotel room, 13 to 16 spaces per 1,000 Sf of net restaurant floor area, and 1 space per 200 net SF in the community center. The residential portion of the site includes single car

garages and minimum 20' driveways and 28 additional off-street parking spaces. The LD PUD regulations require a 3 to 4' high, 10' wide buffer along the road right-of-way and 6' to 8' fence or vegetative screen between residential and non-residential uses. The concept plan appears to show required ROW buffering. The concept plan shows one pedestrian crossing of the active rail line separating the residential portion of the site from the lakefront.

Comments

1. Does City Council need to re-zone the property to LD District, before the planning board and city council can review suitability of rezoning in accordance with a LD PUD plan and accompanying materials? Does the planning board need to review the concept plan before submission of a more detailed LD PUD rezoning application?
2. The Lakefront District PUD regulations do not envision mixed use PUDs. In conjunction with the zoning map amendment, City Council should amend the text of the Lakefront District intent statement to envision Mixed Use PUDs and identify how to calculate area limitations of a mixed use project when residential uses can only occupy 30 percent of a residential LD PUD excluding open space and parking, while commercial LD PUD allows 70 percent for commercial uses including associated parking and other accessory uses.
3. The applicant must document that 20% of the lot area (2.6 acres) is designated for developed and unimproved common or public open space and recreation uses at the time of initial planning board LD PUD concept review.
4. The LD PUD regulations indicate no more than 65 percent of total residential units may be any single type.
5. The concept plan does not appear to provide a visual screen between residential and non-residential uses.
6. Section 350-10 C Indicates the concept plan review is required to include review of phasing and identification of easements, project demand, water and sewer connection points and storm drainage system.
7. The submitted materials do not provide information on changes in the view shed.
8. There is an ADA route labeled from the upper terrace to the lower terrace. What other portions of the pedestrian circulation system are ADA accessible? If the route from public parking to the American Legion Memorial is not accessible, how will visitors access the area?
9. Who will own the American Legion Memorial? If HOA, how will permanent public access be provided?
10. Are boat docks intended for seasonal docking of residential boats or transient docking of hotel/restaurant patrons? What is docking capacity of two 100' docks? What is intended use of the 20'x40' boat house?
11. It appears that most of the townhouse driveways are 20' in length and accommodate 1 vehicle. There appear to be at most 28 additional parking spaces in the residential section of the site. While this meets the requirements of the PUD regulations for off-street parking for attached single family homes, it does not provide additional parking (one space per 200 SF net floor area) for the community center. Will street parking be allowed? The parking standards do not provide visitor parking.
12. What lakefront amenities will be available to residents?

OCSWCD Comments

1. Consider possible management solutions for stormwater on impervious surfaces which run up and down slope such as the center sidewalk and driveways.
2. Plans do not show which areas will be served by which stormwater facilities.
3. Opportunity exists to utilize sustainable shoreline practices to create a buffer between lake and proposed development. Consider appropriate vegetation within rear setback. The Ontario County Soil and Water Conservation District is a resource for this type of project.
4. Impervious surface proposed is significantly more than the existing use. Consider incorporating more green infrastructure practices where possible.

CPB Comments

1. Is the proposed restaurant parking of 4 spaces/1,000 SF sufficient? The City of Rochester zoning code requires 6 to 10 parking spaces/1,000 SF depending on the seat turnover frequency.
2. Would the for-sale townhomes and commercial uses be more desirable with more green scape and less impervious area?
3. Is the Carriage House historically significant?
4. Is proposed lighting dark sky compliant?
5. What stormwater management facilities are proposed?

6. Traffic impact study should address roadway capacity to accommodate additional vehicle volumes and safely transition vehicles from 55 to 30 mph speed limit.
7. How will project contribute to improved pedestrian and bicycle character and safety along SR 14?
8. The ADA pathway shown on the concept plan is likely not feasible given site slope.
9. Will Norfolk Southern allow passage across railroad? Documentation of cross access easement should be provided.
10. Town of Geneva/Ontario County jurisdiction may only extend 25' into Seneca Lake. What additional approvals are required for proposed 100' docks?
11. Is a secondary access point needed to minimize impacts to roadway capacity/turning movement delays or for emergency access?
12. In response to staff and CPB comments, the applicant representatives provided the following additional information:
    a. If necessary, the project could be developed as separate commercial and residential PUDs each with 30 percent open space.
    b. The existing concept plan could accommodate a secondary gated emergency access point at the northwest corner of the development site.
    c. The restaurant is intended to include a brewery, reducing seat generated parking need.
    d. Applicant will consult with State Historic Preservation Office (SHPO) regarding presence of any historic resources.
    e. Applicant recognizes need to minimize impacts to stormwater quality and quantity. Bio retention trenches are proposed in the commercial area to minimize water quality and quantity impacts; stormwater piping is proposed in the steep slope area near the lakeshore to reduce erosion potential in the bluff and railroad areas.
    f. The Legion property, has an existing lake access easement across the railroad, and will incorporate a crossing similar to the crossing on the adjacent Belhurst Castle property.
    g. The 100' docks will be transient restaurant customers and no seasonal or overnight parking will be allowed.
    h. The boat houses will be for storage of hand-powered boats.

Board Motion: To retain referral 101-2021 as a class 2 and return it to the local board with comments and a recommendation of approval. **Motion made by:** David Wink **Seconded by:** Paul Passavant
Vote: 15 in favor, 0 opposed, 0 abstentions **Motion carried.**

102 - 2021 City of Canandaigua Zoning Board of Appeals Area Variance - Class: 1
102.1-2021 Planning Commission Site Plan- Class 1
Variance and site plan to construct 4,200 SF convenience store, 6 fuel dispensers with canopy and associated parking, utilities, landscaping, and stormwater management on vacant parcel at northwest corner of Lake Shore Drive and East Lake Road/SR 364 in the City of Canandaigua. Variance for location within 1,000' of similar use.
Applicant: Brunelle, Christian
Property Owner: Terry, Thomas J.
Representative: Plumley Engineering
Tax Map Parcel No: 98.26-1-97
https://www.co.ontario.ny.us/DocumentCenter/View/29009/102-2021-Aerial
https://www.co.ontario.ny.us/DocumentCenter/View/29010/102-2021-4-28-21-site-plan-Canandaigua-Lakeshore-ZBA-Submittal

The site is 1.11 acres with 200' of frontage along Lakeshore Drive and 242' of frontage along East Lake Road. The proposed use will operate 24 hours per day year round. The site plan proposes one access connection on each frontage. Other site features includes dark sky compliant lighting including 17' pole lights and wall lights, and a screened dumpster enclosure constructed of chain link fence and white plastic. There will be a wood fence along the north and east property perimeter adjacent to residential uses. The proposed building will have porches attached to the south and east sides of the building. Application materials also indicate two internally lit building signs and a monument sign.

Comments

1. The referring body should require extension of the sidewalk and appropriate streetscape landscaping north on SR 364 to the property line.
2. Pole lights of 14' would improve pedestrian character of the site.
3. What is height of fuel canopy?
4. Will the proposed building have a peaked roof as shown in information packet photos of similar site?
5. Will trees and brush be retained in the 10'side and rear setback areas?

william j. commer

June 29, 2021

Ontario County Planning Department
City of Geneva
20 Ontario St.
Canandaigua, NY 14424
Attn: City of Geneva – City Council
Ms. Sage Gerling

Re: (current) Property Owner: American Legion Winnek Post 396
1115 Lochland Road (NYS-14)
Geneva, NY 14456
Tax Map Parcel No: 119.16-1-11
Referral #: 101-2021 & 101.1-2021

Sage,

We are in receipt of the Ontario County Planning Board plan review comments dated May 7, 2021 and offer the following in response:

Comments (numbered with responses below each):

1. Does City Council need to re-zone the property to LD District, before the planning board and city council can review suitability of rezoning in accordance with a LD PUD plan and accompanying materials? Does the planning board need to review the concept plan before submission of a more detailed LD PUD rezoning application?

   RESPONSE: City Council is rezoning to the LD District and would/will then approve the proposed PUD(s) subsequent to the rezoning. The City of Geneva Planning Board has reviewed the sketch plan at their 6/21 Planning Board meeting. Comments raised at 6/21 meeting are now being addressed in anticipation of a subsequent submission.

2. The Lakefront District PUD regulations do not envision mixed use PUDs. In conjunction with the zoning map amendment, City Council should amend the text of the Lakefront District intent statement to envision Mixed Use PUDs and identify how to calculate area limitations of a mixed-use project when residential uses can only occupy 30 percent of a residential LD PUD excluding open space and parking, while commercial LD PUD allows 70 percent for commercial uses including associated parking and other accessory uses.

   RESPONSE: It is anticipated that the project will be comprised of a residential PUD and a separate commercial PUD. While each PUD will meet the minimum area required by Code, the proposed project is master planned to integrate both PUDs into the entire site -and- to be consistent with the intent of the PUD(s).

763 SUSQUEHANNA AVENUE
FRANKLIN LAKES, NEW JERSEY 07417

william j. commer

3. The applicant must document that 20% of the lot area (2.6 acres) is designated for developed and unimproved common or public open space and recreation uses at the time of initial planning board LD PUD concept review.

   RESPONSE: The proposed project includes 20% developed and undeveloped open space. All areas proposed on the project that are not occupied by buildings, roadways and parking will be designated open space amenities for enjoyment of guests and/or residents.

4. The LD PUD regulations indicate no more than 65 percent of total residential units may be any single type.

   RESPONSE: Pursuant to City Code and the City Council approval authority, the proposed project anticipates and is asking for certain deviations from this requirement of the Code.

5. The concept plan does not appear to provide a visual screen between residential and non-residential uses.

   RESPONSE: Appropriate landscaping plantings and buffers will be developed as part of the final site plan approvals. The proposed project does plan to incorporate landscape screens between residential and non-residential uses.

6. Section 350-10 C Indicates the concept plan review is required to include review of phasing and identification of easements, project demand, water and sewer connection points and storm drainage system.

   RESPONSE: The sketch plan and all other required information was submitted for the Planning Board's consideration at their 6/21 meeting. Comments from that meeting are being addressed in anticipation of subsequent submissions.

7. The submitted materials do not provide information on changes in the view shed.

   RESPONSE: The applicant has prepared drawings and studies to show the existing and proposed views along Lochland Road (NYS-14). Although the proposed development is not expected to significantly impact view shed(s), the applicant will provide these studies in support of the applications and submissions.

8. There is an ADA route labeled from the upper terrace to the lower terrace. What other portions of the pedestrian circulation system are ADA accessible? If the route from public parking to the American Legion Memorial is not accessible, how will visitors access the area?

   RESPONSE: Even though some parts of the development are subject to approvals of other authorities, it is intended that the completed project/development will feature accessible paths to all those accessible routes to all project amenities, which may

include the future development of terraces as needed to access the waterfront views and other waterfront amenities. Additional detail will be provided as these features are developed.

9. Who will own the American Legion Memorial? If HOA, how will permanent public access be provided?

   RESPONSE: The Memorial will continue to be privately owned and will also be located in an area that is generally accessible to the public.

10. Are boat docks intended for seasonal docking of residential boats or transient docking of hotel/restaurant patrons? What is docking capacity of two 100' docks? What is intended use of the 20'x40' boat house?

    RESPONSE: The property has an existing, but deteriorated dock and pilings that are intended to be restored and potentially expanded as part of this development, but approvals by other authorities will be required in order for these restorations and improvements to be completed. However, and to generally speak to the questions, the proposed boat slips are intended to be provided for temporary use without overnight docking as appears to be consistent with other docking in this area. The boat house is intended to provide storage for the personal small watercraft of residents (e.g.-kayaks and canoes).

11. It appears that most of the townhouse driveways are 20' in length and accommodate 1 vehicle. There appear to be at most 28 additional parking spaces in the residential section of the site. While this meets the requirements of the PUD regulations for off-street parking for attached single family homes, it does not provide additional parking (one space per 200 SF net floor area) for the community center. Will street parking be allowed? The parking standards do not provide visitor parking.

    RESPONSE: Street parking is not anticipated to be allowed. Each townhome will also have a minimum of 1 garage space in addition to the driveways. Additional parking to serve the community center will be provided adjacent to the clubhouse and pool area.

12. *What lakefront amenities will be available to residents?*

    RESPONSE: Dock, boathouse and developed open space is anticipated to be provided to residents and guests.

13. *Is the proposed restaurant parking of 4 spaces/1,000 SF sufficient? The City of Rochester zoning code requires 6 to 10 parking spaces/1,000 SF depending on the seat turnover frequency.*

    RESPONSE: Parking for the restaurant space is anticipated to be closer to 10 spaces/ 1000 sf. Additional detail will be provided to the City Planning Board once a user is identified to ensure adequate parking is provided.

william j. commer

14. *Would the for-sale townhomes and commercial uses be more desirable with more greenspace and less impervious area?*

    RESPONSE: The proposed PUD will provide a minimum of 20% open space (developed and undeveloped). Final design will provide additional detail at the planning board level regarding the greenspace and impervious areas.

15. *Is the Carriage House historically significant?*

    RESPONSE: The final determination from SHPO is still pending; however, the archaeologist engaged on the project did not determine it to be so.

16. *Is proposed lighting dark sky compliant?*

    RESPONSE: It is anticipated that the lighting will be dark sky compliant.

17. *What stormwater management facilities are proposed?*

    RESPONSE: Stormwater management facilities will be fully designed as part of the final site plan application to the planning board; however, bioretention, tree planting/ pits and standard pocket pond or wet pond design will be utilized.

OCSWCD Comments

1. Consider possible management solutions for stormwater on impervious surfaces which run up and down slope such as the center sidewalk and driveways.

   RESPONSE: Stormwater management solutions will be fully designed as part of the final site plan application. All practices will be considered to accomplish the required green infrastructure and water quality treatment as part of the project.

2. Plans do not show which areas will be served by which stormwater facilities.

   RESPONSE: All NYSDEC requirements and regulations will be complied for the stormwater facilities. Additional detail will be provided with the final site plan application.

3. Opportunity exists to utilize sustainable shoreline practices to create a buffer between lake and proposed development. Consider appropriate vegetation within rear setback. The Ontario County Soil and Water Conservation District is a resource for this type of project.

   RESPONSE: Acknowledged.

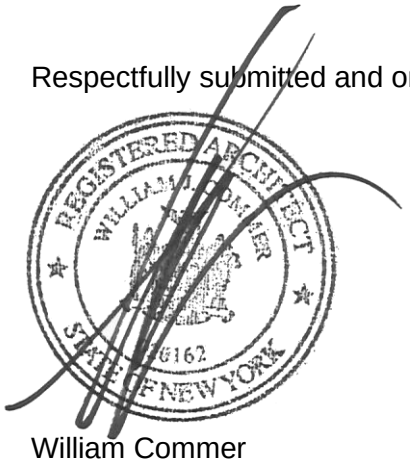
4. Impervious surface proposed is significantly more than the existing use. Consider incorporating more green infrastructure practices where possible.

   RESPONSE: All NYSDEC requirements and regulations will be complied with through green infrastructure practices. Additional detail will be provided with the final site plan application.

william j. commer

Please let me know if you have any additional questions or comments.
I can be reached at 201-848-9060 (x-14) or by email at bcommer@wjcainc.com.

Respectfully submitted and on behalf of Rivers Edge Capital,



William Commer
NY Arch. Lic. # 020162-1

Full Environmental Assessment Form
Part 1 - Project and Setting

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the applicant or project sponsor to verify that the information contained in Part 1is accurate and complete.

A. Project and Applicant/Sponsor Information.

Name of Action or Project: 1115 Lochland Road - Mixed Use Development		
Project Location (describe, and attach a general location map): 1115 Lochland Rd (NYS Route 14), Geneva		
Brief Description of Proposed Action (include purpose or need): Creation of a proposed mixed use development with hospitality, restaurant and for sale attached residential. Also proposed are waterfront and common area amenities with utility, parking, landscaping and lighting improvements supplementing a vibrant lake oriented development. Care will be taken to provide architecture scale and massing consistent with the neighborhood and complementary of the City of Geneva history. The City of Geneva is currently considering updates to it's comprehensive plan and zoning ordinances. This project is proceeding in advance of those being fully approved but takes the proposed regulations into account in analyzing proposed environmental impacts and zoning requirements.		
Name of Applicant/Sponsor: Jerry Lariviere - Lakefront Development Group, LLC	Telephone: 570-505-3890 E-Mail: jerry@pineridgecm.com	
Address: 1000 Commerce Park Drive		
City/PO: Williamsport	State: PA	Zip Code: 17701
Project Contact (if not same as sponsor; give name and title/role): Matt Tomlinson	Telephone: 585-458-7770 E-Mail: mtomlinson@marathoneng.com	
Address: 39 Cascade Drive		
City/PO: Rochester	State: NY	Zip Code: 14614
Property Owner (if not same as sponsor): American Legion Winnek Post #396	Telephone: E-Mail:	
Address: 1115 Lochland Road		
City/PO: Geneva	State: NY	Zip Code: 14456

B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.)

Government Entity	If Yes: Identify Agency and Approval(s) Required	Application Date (Actual or projected)
a. City Counsel, Town Board, or Village Board of Trustees ☑Yes☐No	City Council - Rezone of parcel	04/28/21
b. City, Town or Village Planning Board or Commission ☑Yes☐No	Planning Board - Final Subdivision and Site Plan Approval	07/21
c. City, Town or Village Zoning Board of Appeals ☐Yes☐No		
d. Other local agencies ☑Yes☐No	Public Works - utility extension	07/21
e. County agencies ☑Yes☐No	County Planning	04/28/21
f. Regional agencies ☐Yes☐No		
g. State agencies ☑Yes☐No	NYSHD - Watermain/ Backflow, NYSDEC - San. Sewer/ dock permits/ SWPPP, NYSDOS - Dock	NYSDOT - Driveway access 07/21
h. Federal agencies ☑Yes☐No	USArmy Corps of Engineers - Dock approvals	07/21

i. Coastal Resources.
i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? ☐Yes☑No

ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? ☐Yes☑No

iii. Is the project site within a Coastal Erosion Hazard Area? ☐Yes☑No

C. Planning and Zoning

C.1. Planning and zoning actions.

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? ☐Yes☑No

- **If Yes,** complete sections C, F and G.
- **If No,** proceed to question C.2 and complete all remaining sections and questions in Part 1

C.2. Adopted land use plans.

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? ☑Yes☐No

If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? ☑Yes☐No

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway; Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) ☐Yes☑No

If Yes, identify the plan(s):

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? ☐Yes☑No

If Yes, identify the plan(s):

C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. ☑ Yes ☐ No
If Yes, what is the zoning classification(s) including any applicable overlay district?
AR - Agriculture (Existing) MU-H - Mixed Use Hospitality (2020 Draft Zoning Code)
Planned Development - VFW (Proposed)

b. Is the use permitted or allowed by a special or conditional use permit? ☐ Yes ☑ No

c. Is a zoning change requested as part of the proposed action? ☑ Yes ☐ No
If Yes,
i. What is the proposed new zoning for the site? PUD-VFW

C.4. Existing community services.

a. In what school district is the project site located? Geneva City School District

b. What police or other public protection forces serve the project site?
Geneva Police Department

c. Which fire protection and emergency medical services serve the project site?
Geneva Fire Department

d. What parks serve the project site?
Jefferson Park, Pulteney Park

D. Project Details

D.1. Proposed and Potential Development

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? Mixed Use hospitality/ restaurant and for sale residential

b. a. Total acreage of the site of the proposed action? 12.9 acres
b. Total acreage to be physically disturbed? 11.5 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 12.9 acres

c. Is the proposed action an expansion of an existing project or use? ☐ Yes ☑ No
i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____

d. Is the proposed action a subdivision, or does it include a subdivision? ☑ Yes ☐ No
If Yes,
i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)
3 lots supporting the proposed development (1 hotel, 1 restaurant, 1 HOA/ Condo Assoc.)
ii. Is a cluster/conservation layout proposed? ☐ Yes ☑ No
iii. Number of lots proposed? _____
iv. Minimum and maximum proposed lot sizes? Minimum 2 Acres Maximum 8 Acres

e. Will the proposed action be constructed in multiple phases? ☐ Yes ☑ No
i. If No, anticipated period of construction: 24 months
ii. If Yes:
- Total number of phases anticipated _____
- Anticipated commencement date of phase 1 (including demolition) _____ month _____ year
- Anticipated completion date of final phase _____ month _____ year
- Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: _____

f. Does the project include new residential uses? ☑Yes ☐No
If Yes, show numbers of units proposed.

	One Family	Two Family	Three Family	Multiple Family (four or more)
Initial Phase	57 (Condo)			
At completion of all phases				

g. Does the proposed action include new non-residential construction (including expansions)? ☑Yes ☐No
If Yes,
i. Total number of structures 2
ii. Dimensions (in feet) of largest proposed structure: 60' height; 150 width; and 220 length
iii. Approximate extent of building space to be heated or cooled: 87,000 (Not incl. residential) square feet

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? ☑Yes ☐No
If Yes,
i. Purpose of the impoundment: Stormwater management
ii. If a water impoundment, the principal source of the water: ☐ Ground water ☐ Surface water streams ☑Other specify: collected stormwater runoff
iii. If other than water, identify the type of impounded/contained liquids and their source.
iv. Approximate size of the proposed impoundment. Volume: _____ million gallons; surface area: 1 acres
v. Dimensions of the proposed dam or impounding structure: 5' +/- height; 200+/- length
vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete):
Earth fill utilizing on-site materials.

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite) ☐Yes ☑No
If Yes:
i. What is the purpose of the excavation or dredging?
ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?
- Volume (specify tons or cubic yards):
- Over what duration of time?

iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them.
iv. Will there be onsite dewatering or processing of excavated materials? ☐Yes ☐No
If yes, describe.
v. What is the total area to be dredged or excavated? _____ acres
vi. What is the maximum area to be worked at any one time? _____ acres
vii. What would be the maximum depth of excavation or dredging? _____ feet
viii. Will the excavation require blasting? ☐Yes ☐No
ix. Summarize site reclamation goals and plan:

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? ☑Yes ☐No
If Yes:
i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): Dock and Boathouse on Seneca Lake to support the proposed project.

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:
2500+/- sf of Dock Area with a 600 sf +/- boathouse with storage for kayaks and canoes and dock furniture

iii. Will the proposed action cause or result in disturbance to bottom sediments? ☑Yes ☐No
If Yes, describe: typical installation of piles for the dock structure

iv. Will the proposed action cause or result in the destruction or removal of aquatic vegetation? ☐Yes ☑No
If Yes:

- acres of aquatic vegetation proposed to be removed:
- expected acreage of aquatic vegetation remaining after project completion:
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access):
- proposed method of plant removal:
- if chemical/herbicide treatment will be used, specify product(s):

v. Describe any proposed reclamation/mitigation following disturbance:

c. Will the proposed action use, or create a new demand for water? ☑Yes ☐No
If Yes:

i. Total anticipated water usage/demand per day: 45,310 gallons/day

ii. Will the proposed action obtain water from an existing public water supply? ☑Yes ☐No
If Yes:

- Name of district or service area: CIty of Geneva Water Department
- Does the existing public water supply have capacity to serve the proposal? ☑Yes ☐No
- Is the project site in the existing district? ☑Yes ☐No
- Is expansion of the district needed? ☐Yes ☑No
- Do existing lines serve the project site? ☑Yes ☐No

iii. Will line extension within an existing district be necessary to supply the project? ☑Yes ☐No
If Yes:

- Describe extensions or capacity expansions proposed to serve this project:
  8" water main to be extended throughout the project. Dedication of main to be determined at Planning Board
- Source(s) of supply for the district: Connection to City of Geneva 12" Water Main along NYS Route 14

iv. Is a new water supply district or service area proposed to be formed to serve the project site? ☐ Yes ☑No
If, Yes:

- Applicant/sponsor for new district:
- Date application submitted or anticipated:
- Proposed source(s) of supply for new district:

v. If a public water supply will not be used, describe plans to provide water supply for the project:

vi. If water supply will be from wells (public or private), what is the maximum pumping capacity: _____ gallons/minute.

d. Will the proposed action generate liquid wastes? ☑Yes ☐No
If Yes:

i. Total anticipated liquid waste generation per day: 45,310 gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each):
Sanitary wastewater - possible micro-brewery waste

iii. Will the proposed action use any existing public wastewater treatment facilities? ☑Yes ☐No
If Yes:

- Name of wastewater treatment plant to be used: City of Geneva Wastewater Treatment Plant
- Name of district: City of Geneva
- Does the existing wastewater treatment plant have capacity to serve the project? ☑Yes ☐No
- Is the project site in the existing district? ☑Yes ☐No
- Is expansion of the district needed? ☐Yes ☑No

- Do existing sewer lines serve the project site? ☑Yes ☐No
- Will a line extension within an existing district be necessary to serve the project? ☑Yes ☐No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: 8" PVC sanitary sewer with concrete pre-cast manholes dedicated within easement to the City of Geneva - pump stations for buildings unable to be serviced by gravity sewer

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? ☐Yes ☑No

If Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- What is the receiving water for the wastewater discharge? _____

v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge or describe subsurface disposal plans):

_____

vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? ☑Yes ☐No

If Yes:

i. How much impervious surface will the project create in relation to total size of project parcel?

_____ Square feet or 10.3 acres (impervious surface)

_____ Square feet or 12.9 acres (parcel size)

ii. Describe types of new point sources. Roof and pavements constructed as part of the development. 10.3 acres is based on the maximum lot coverage of 80% proposed within the zoning.

iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?

On-site stormwater management facilities and green infrastructure practices - ultimately discharges to Seneca Lake

- If to surface waters, identify receiving water bodies or wetlands: Seneca Lake
- Will stormwater runoff flow to adjacent properties? ☐Yes ☑No

iv. Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? ☑Yes ☐No

f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? ☑Yes ☐No

If Yes, identify:

i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)

Typical construction equipment

ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

N/A

iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

N/A

g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? ☐Yes ☑No

If Yes:

i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) ☐Yes ☐No

ii. In addition to emissions as calculated in the application, the project will generate:

- _____Tons/year (short tons) of Carbon Dioxide (CO_2)
- _____Tons/year (short tons) of Nitrous Oxide (N_2O)
- _____Tons/year (short tons) of Perfluorocarbons (PFCs)
- _____Tons/year (short tons) of Sulfur Hexafluoride (SF_6)
- _____Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)
- _____Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? ☐Yes ☑No

If Yes:

i. Estimate methane generation in tons/year (metric): _____

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____

i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? ☐Yes ☑No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust):

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? ☑Yes ☐No

If Yes:

i. When is the peak traffic expected (Check all that apply): ☑ Morning ☑ Evening ☑Weekend
☐ Randomly between hours of _____ to _____.

ii. For commercial activities only, projected number of truck trips/day and type (e.g., semi trailers and dump trucks): _____
Trucks will be limited to deliveries/ garbage pickup - 2/ day anticipated

iii. Parking spaces: Existing 97 Proposed 405+/- Net increase/decrease 308

iv. Does the proposed action include any shared use parking? ☑Yes ☐No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe:
Change in access proposed to middle of site that separates from Belhurst Castle access and Snell Road intersection at south end of project.

vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? ☐Yes ☑No

vii Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? ☐Yes ☑No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? ☐Yes ☑No

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? ☑Yes ☐No

If Yes:

i. Estimate annual electricity demand during operation of the proposed action: _____
1458MWh/ year

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other):
NYSEG grid/ local utility

iii. Will the proposed action require a new, or an upgrade, to an existing substation? ☐Yes ☑No

l. Hours of operation. Answer all items which apply.

i. During Construction:
- Monday - Friday: 7 AM - 7 PM
- Saturday: 7 AM - 7 PM
- Sunday: N/A
- Holidays: N/A

ii. During Operations:
- Monday - Friday: 24 Hours/ Day
- Saturday: 24 Hours/ Day
- Sunday: 24 Hours/ Day
- Holidays: 24 Hours/ Day

m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? ☑ Yes ☐ No

If yes:

i. Provide details including sources, time of day and duration:

Normal residential and commercial noises - noise levels are not anticipated to exceed existing events at the American Legion and neighboring properties or traffic noise on adjacent roadways.

ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen? ☐ Yes ☑ No

Describe: _____

n. Will the proposed action have outdoor lighting? ☑ Yes ☐ No

If yes:

i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:

Dark sky compliant LED lighting with shielding to limit light spill to neighboring properties.

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? ☐ Yes ☑ No

Describe: _____

o. Does the proposed action have the potential to produce odors for more than one hour per day? ☐ Yes ☑ No

If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: _____

p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? ☐ Yes ☑ No

If Yes:

i. Product(s) to be stored _____

ii. Volume(s) _____ per unit time _____ (e.g., month, year)

iii. Generally, describe the proposed storage facilities: _____

q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? ☑ Yes ☐ No

If Yes:

i. Describe proposed treatment(s):

Typical lawn treatments for weeds and pests

ii. Will the proposed action use Integrated Pest Management Practices? ☑ Yes ☐ No

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? ☑ Yes ☐ No

If Yes:

i. Describe any solid waste(s) to be generated during construction or operation of the facility:

- Construction: 6500 tons per 2years(construction) (unit of time)
- Operation : 120 tons per year (unit of time)

ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:

- Construction: typical waste minimization practices for recycling/ coordinate with all trades
- Operation: typical recycling

iii. Proposed disposal methods/facilities for solid waste generated on-site:

- Construction: local licensed waste hauler
- Operation: local licensed waste hauler

s. Does the proposed action include construction or modification of a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): _____

ii. Anticipated rate of disposal/processing:

- _____ Tons/month, if transfer or other non-combustion/thermal treatment, or
- _____ Tons/hour, if combustion or thermal treatment

iii. If landfill, anticipated site life: _____ years

t. Will the proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? ☐ Yes ☑ No

If Yes:

i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

iii. Specify amount to be handled or generated _____ tons/month

iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? ☐ Yes ☐ No

If Yes: provide name and location of facility: _____

If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site

a. Existing land uses.

i. Check all uses that occur on, adjoining and near the project site.

☐ Urban ☐ Industrial ☐ Commercial ☑ Residential (suburban) ☑ Rural (non-farm)
☐ Forest ☐ Agriculture ☑ Aquatic ☐ Other (specify): _____

ii. If mix of uses, generally describe:

Hospitality, waterfront on Seneca Lake, single family home uses

b. Land uses and covertypes on the project site.

Land use or Covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	2.1	8.1 (max)	+6.0
• Forested	0	0	---
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	0.5	0	-0.5
• Agricultural (includes active orchards, field, greenhouse etc.)	0	0	---
• Surface water features (lakes, ponds, streams, rivers, etc.)	0	1.0	+1.0
• Wetlands (freshwater or tidal)	0	0	---
• Non-vegetated (bare rock, earth or fill)	0	0	---
• Other Describe: Lawn	10.3	3.8 (min.)	-6.5

c. Is the project site presently used by members of the community for public recreation? ☐Yes ☑No
i. If Yes: explain: _____

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? ☑Yes ☐No
If Yes,
i. Identify Facilities:
Lochland School

e. Does the project site contain an existing dam? ☐Yes ☑No
If Yes:
i. Dimensions of the dam and impoundment:
- Dam height: _____ feet
- Dam length: _____ feet
- Surface area: _____ acres
- Volume impounded: _____ gallons OR acre-feet

ii. Dam's existing hazard classification: _____
iii. Provide date and summarize results of last inspection:

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? ☐Yes ☑No
If Yes:
i. Has the facility been formally closed? ☐Yes ☐ No
- If yes, cite sources/documentation: _____

ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:

iii. Describe any development constraints due to the prior solid waste activities: _____

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? ☐Yes ☐No
If Yes:
i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? ☐Yes ☑ No
If Yes:
i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: ☐Yes ☐No
☐ Yes – Spills Incidents database — Provide DEC ID number(s): _____
☐ Yes – Environmental Site Remediation database — Provide DEC ID number(s): _____
☐ Neither database

ii. If site has been subject of RCRA corrective activities, describe control measures: _____

iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? ☐Yes ☑No
If yes, provide DEC ID number(s): _____
iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):

v. Is the project site subject to an institutional control limiting property uses? ☐Yes ☐No

- If yes, DEC site ID number: _____
- Describe the type of institutional control (e.g., deed restriction or easement): _____
- Describe any use limitations: _____
- Describe any engineering controls: _____
- Will the project affect the institutional or engineering controls in place? ☐Yes ☐No
- Explain: _____

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site? >6' feet

b. Are there bedrock outcroppings on the project site? ☐Yes ☑No
If Yes, what proportion of the site is comprised of bedrock outcroppings? _____%

c. Predominant soil type(s) present on project site: Hydrologic Soil Group D 100 %

d. What is the average depth to the water table on the project site? Average: >6 feet

e. Drainage status of project site soils: ☐ Well Drained: ____% of site
☐ Moderately Well Drained: ____% of site
☑ Poorly Drained 100 % of site

f. Approximate proportion of proposed action site with slopes: ☑ 0-10%: 33 % of site
☑ 10-15%: 62 % of site
☑ 15% or greater: 5 % of site

g. Are there any unique geologic features on the project site? ☐Yes ☑No
If Yes, describe: _____

h. Surface water features.

i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? ☐Yes ☑No

ii. Do any wetlands or other waterbodies adjoin the project site? ☑Yes ☐No

If Yes to either *i* or *ii*, continue. If No, skip to E.2.i.

iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? ☑Yes ☐No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name _____ Classification _____
- Lakes or Ponds: Name Seneca Lake Classification _____
- Wetlands: Name _____ Approximate Size _____
- Wetland No. (if regulated by DEC) _____

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? ☐Yes ☑No

If yes, name of impaired water body/bodies and basis for listing as impaired: _____

i. Is the project site in a designated Floodway? ☐Yes ☑No

j. Is the project site in the 100-year Floodplain? ☐Yes ☑No

k. Is the project site in the 500-year Floodplain? ☐Yes ☑No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? ☑Yes ☐No
If Yes:

i. Name of aquifer: Principal Aquifer

m. Identify the predominant wildlife species that occupy or use the project site:
small mammals | birds | rodents
typical finger lakes fauna

n. Does the project site contain a designated significant natural community? ☐Yes ☑No
If Yes:
i. Describe the habitat/community (composition, function, and basis for designation):
ii. Source(s) of description or evaluation:
iii. Extent of community/habitat:
- Currently: _____ acres
- Following completion of project as proposed: _____ acres
- Gain or loss (indicate + or -): _____ acres

o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? ☐Yes ☑No
If Yes:
i. Species and listing (endangered or threatened):

p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? ☐Yes ☑No
If Yes:
i. Species and listing:

q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? ☑Yes ☐No
If yes, give a brief description of how the proposed action may affect that use:
Proposed use will provide water frontage access for project clients and residents which will include fishing from dock and water front improvements.

E.3. Designated Public Resources On or Near Project Site

a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? ☐Yes ☑No
If Yes, provide county plus district name/number:

b. Are agricultural lands consisting of highly productive soils present? ☐Yes ☑No
i. If Yes: acreage(s) on project site?
ii. Source(s) of soil rating(s):

c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? ☐Yes ☑No
If Yes:
i. Nature of the natural landmark: ☐ Biological Community ☐ Geological Feature
ii. Provide brief description of landmark, including values behind designation and approximate size/extent:

d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? ☐Yes ☑No
If Yes:
i. CEA name:
ii. Basis for designation:
iii. Designating agency and date:

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places? ☑ Yes ☐ No

If Yes:

i. Nature of historic/archaeological resource: ☐ Archaeological Site ☑ Historic Building or District

ii. Name: Belhurst Castle

iii. Brief description of attributes on which listing is based:

1987 listing on National Register of Historic Places

f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory? ☐ Yes ☑ No

g. Have additional archaeological or historic site(s) or resources been identified on the project site? ☐ Yes ☑ No

If Yes:

i. Describe possible resource(s): _____

ii. Basis for identification: _____

h. Is the project site within fives miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? ☐ Yes ☑ No

If Yes:

i. Identify resource: _____

ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): _____

iii. Distance between project and resource: _____ miles.

i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? ☐ Yes ☑ No

If Yes:

i. Identify the name of the river and its designation: _____

ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666? ☐ Yes ☐ No

F. Additional Information

Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

I certify that the information provided is true to the best of my knowledge.

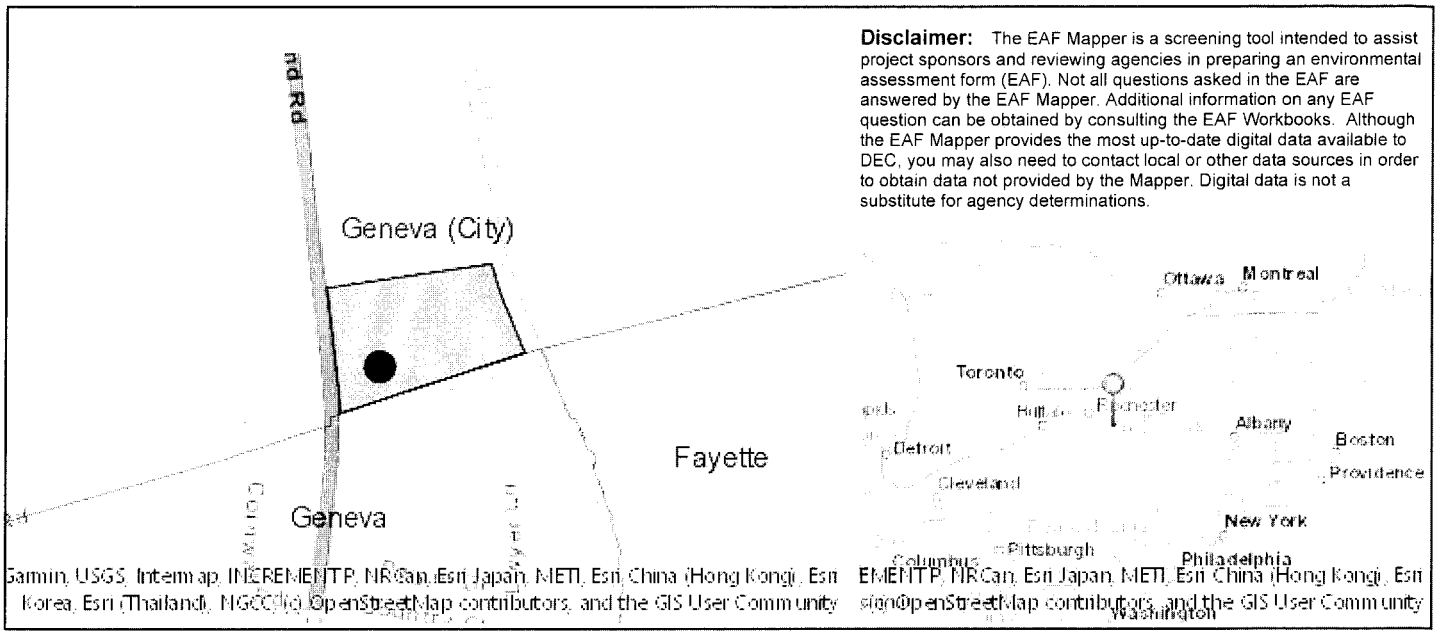
Applicant/Sponsor Name Matthew Tomlinson Date 4/28/21

Signature _____ Title Project Manager

PRINT FORM

EAF Mapper Summary Report

Tuesday, April 20, 2021 1:55 PM



B.i.i [Coastal or Waterfront Area]	No
B.i.ii [Local Waterfront Revitalization Area]	No
C.2.b. [Special Planning District]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h [DEC Spills or Remediation Site - Potential Contamination History]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Listed]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.iii [Within 2,000' of DEC Remediation Site]	No
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	No
E.2.h.ii [Surface Water Features]	Yes
E.2.h.iii [Surface Water Features]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
E.2.h.v [Impaired Water Bodies]	No
E.2.i. [Floodway]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.2.j. [100 Year Floodplain]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.2.k. [500 Year Floodplain]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.2.l. [Aquifers]	Yes
E.2.l. [Aquifer Names]	Principal Aquifer
E.2.n. [Natural Communities]	No

E.2.o. [Endangered or Threatened Species]	No
E.2.p. [Rare Plants or Animals]	No
E.3.a. [Agricultural District]	No
E.3.c. [National Natural Landmark]	No
E.3.d [Critical Environmental Area]	No
E.3.e. [National or State Register of Historic Places or State Eligible Sites]	Yes - Digital mapping data for archaeological site boundaries are not available. Refer to EAF Workbook.
E.3.e.ii [National or State Register of Historic Places or State Eligible Sites - Name]	Belhurst Castle
E.3.f. [Archeological Sites]	No
E.3.i. [Designated River Corridor]	No

Agency Use Only [If applicable]

Project :

Date :

Full Environmental Assessment Form
Part 2 - Identification of Potential Project Impacts

Part 2 is to be completed by the lead agency. Part 2 is designed to help the lead agency inventory all potential resources that could be affected by a proposed project or action. We recognize that the lead agency's reviewer(s) will not necessarily be environmental professionals. So, the questions are designed to walk a reviewer through the assessment process by providing a series of questions that can be answered using the information found in Part 1. To further assist the lead agency in completing Part 2, the form identifies the most relevant questions in Part 1 that will provide the information needed to answer the Part 2 question. When Part 2 is completed, the lead agency will have identified the relevant environmental areas that may be impacted by the proposed activity.

If the lead agency is a state agency **and** the action is in any Coastal Area, complete the Coastal Assessment Form before proceeding with this assessment.

Tips for completing Part 2:

- Review all of the information provided in Part 1.
- Review any application, maps, supporting materials and the Full EAF Workbook.
- Answer each of the 18 questions in Part 2.
- If you answer "**Yes"** to a numbered question, please complete all the questions that follow in that section.
- If you answer "**No"** to a numbered question, move on to the next numbered question.
- Check appropriate column to indicate the anticipated size of the impact.
- Proposed projects that would exceed a numeric threshold contained in a question should result in the reviewing agency checking the box "Moderate to large impact may occur."
- The reviewer is not expected to be an expert in environmental analysis.
- If you are not sure or undecided about the size of an impact, it may help to review the sub-questions for the general question and consult the workbook.
- When answering a question consider all components of the proposed activity, that is, the "whole action".
- Consider the possibility for long-term and cumulative impacts as well as direct impacts.
- Answer the question in a reasonable manner considering the scale and context of the project.

1. Impact on Land
Proposed action may involve construction on, or physical alteration of, the land surface of the proposed site. (See Part 1. D.1)
If "Yes", answer questions a - j. If "No", move on to Section 2.

☐ NO ☑ YES

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may involve construction on land where depth to water table is less than 3 feet.	E2d	☑	☐
b. The proposed action may involve construction on slopes of 15% or greater.	E2f	☑	☐
c. The proposed action may involve construction on land where bedrock is exposed, or generally within 5 feet of existing ground surface.	E2a	☑	☐
d. The proposed action may involve the excavation and removal of more than 1,000 tons of natural material.	D2a	☑	☐
e. The proposed action may involve construction that continues for more than one year or in multiple phases.	D1e	☑	☐
f. The proposed action may result in increased erosion, whether from physical disturbance or vegetation removal (including from treatment by herbicides).	D2e, D2q	☑	☐
g. The proposed action is, or may be, located within a Coastal Erosion hazard area.	B1i	☑	☐
h. Other impacts: _____ _____		☐	☐

2. Impact on Geological Features

The proposed action may result in the modification or destruction of, or inhibit access to, any unique or unusual land forms on the site (e.g., cliffs, dunes, minerals, fossils, caves). (See Part 1. E.2.g) ☑ NO ☐ YES

If "Yes", answer questions a - c. If "No", move on to Section 3.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Identify the specific land form(s) attached: _____ _____	E2g	□	□
b. The proposed action may affect or is adjacent to a geological feature listed as a registered National Natural Landmark. Specific feature: _____	E3c	□	□
c. Other impacts: _____ _____		□	□

3. Impacts on Surface Water

The proposed action may affect one or more wetlands or other surface water bodies (e.g., streams, rivers, ponds or lakes). (See Part 1. D.2, E.2.h) ☐ NO ☑ YES

If "Yes", answer questions a - l. If "No", move on to Section 4.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may create a new water body.	D2b, D1h	☑	☐
b. The proposed action may result in an increase or decrease of over 10% or more than a 10 acre increase or decrease in the surface area of any body of water.	D2b	☑	☐
c. The proposed action may involve dredging more than 100 cubic yards of material from a wetland or water body.	D2a	☑	☐
d. The proposed action may involve construction within or adjoining a freshwater or tidal wetland, or in the bed or banks of any other water body.	E2h	☑	☐
e. The proposed action may create turbidity in a waterbody, either from upland erosion, runoff or by disturbing bottom sediments.	D2a, D2h	☑	☐
f. The proposed action may include construction of one or more intake(s) for withdrawal of water from surface water.	D2c	☑	☐
g. The proposed action may include construction of one or more outfall(s) for discharge of wastewater to surface water(s).	D2d	☑	☐
h. The proposed action may cause soil erosion, or otherwise create a source of stormwater discharge that may lead to siltation or other degradation of receiving water bodies.	D2e	☑	☐
i. The proposed action may affect the water quality of any water bodies within or downstream of the site of the proposed action.	E2h	☑	☐
j. The proposed action may involve the application of pesticides or herbicides in or around any water body.	D2q, E2h	☑	☐
k. The proposed action may require the construction of new, or expansion of existing, wastewater treatment facilities.	D1a, D2d	☑	☐

l. Other impacts: _____ _____		☐	☐

4. Impact on groundwater

The proposed action may result in new or additional use of ground water, or may have the potential to introduce contaminants to ground water or an aquifer. (See Part 1. D.2.a, D.2.c, D.2.d, D.2.p, D.2.q, D.2.t)

☑ NO ☐ YES

If "Yes", answer questions a - h. If "No", move on to Section 5.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may require new water supply wells, or create additional demand on supplies from existing water supply wells.	D2c	☐	☐
b. Water supply demand from the proposed action may exceed safe and sustainable withdrawal capacity rate of the local supply or aquifer. Cite Source: _____	D2c	☐	☐
c. The proposed action may allow or result in residential uses in areas without water and sewer services.	D1a, D2c	☐	☐
d. The proposed action may include or require wastewater discharged to groundwater.	D2d, E2l	☐	☐
e. The proposed action may result in the construction of water supply wells in locations where groundwater is, or is suspected to be, contaminated.	D2c, E1f, E1g, E1h	☐	☐
f. The proposed action may require the bulk storage of petroleum or chemical products over ground water or an aquifer.	D2p, E2l	☐	☐
g. The proposed action may involve the commercial application of pesticides within 100 feet of potable drinking water or irrigation sources.	E2h, D2q, E2l, D2c	☐	☐
h. Other impacts: _____ _____		☐	☐

5. Impact on Flooding

The proposed action may result in development on lands subject to flooding. (See Part 1. E.2)

☑ NO ☐ YES

If "Yes", answer questions a - g. If "No", move on to Section 6.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in development in a designated floodway.	E2i	☐	☐
b. The proposed action may result in development within a 100 year floodplain.	E2j	☐	☐
c. The proposed action may result in development within a 500 year floodplain.	E2k	☐	☐
d. The proposed action may result in, or require, modification of existing drainage patterns.	D2b, D2e	☐	☐
e. The proposed action may change flood water flows that contribute to flooding.	D2b, E2i, E2j, E2k	☐	☐
f. If there is a dam located on the site of the proposed action, is the dam in need of repair, or upgrade?	E1e	☐	☐

g. Other impacts: _____ _____		☐	☐

6. Impacts on Air

The proposed action may include a state regulated air emission source. (See Part 1. D.2.f., D.2.h, D.2.g) ☑ NO ☐ YES

If "Yes", answer questions a - f. If "No", move on to Section 7.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. If the proposed action requires federal or state air emission permits, the action may also emit one or more greenhouse gases at or above the following levels:			
i. More than 1000 tons/year of carbon dioxide (CO_2)	D2g	☐	☐
ii. More than 3.5 tons/year of nitrous oxide (N_2O)	D2g	☐	☐
iii. More than 1000 tons/year of carbon equivalent of perfluorocarbons (PFCs)	D2g	☐	☐
iv. More than .045 tons/year of sulfur hexafluoride (SF_6)	D2g	☐	☐
v. More than 1000 tons/year of carbon dioxide equivalent of hydrochloroflourocarbons (HFCs) emissions	D2g	☐	☐
vi. 43 tons/year or more of methane	D2h	☐	☐
b. The proposed action may generate 10 tons/year or more of any one designated hazardous air pollutant, or 25 tons/year or more of any combination of such hazardous air pollutants.	D2g	☐	☐
c. The proposed action may require a state air registration, or may produce an emissions rate of total contaminants that may exceed 5 lbs. per hour, or may include a heat source capable of producing more than 10 million BTU's per hour.	D2f, D2g	☐	☐
d. The proposed action may reach 50% of any of the thresholds in "a" through "c", above.	D2g	☐	☐
e. The proposed action may result in the combustion or thermal treatment of more than 1 ton of refuse per hour.	D2s	☐	☐
f. Other impacts: _____ _____		☐	☐

7. Impact on Plants and Animals

The proposed action may result in a loss of flora or fauna. (See Part 1. E.2. m.-q.) ☑ NO ☐ YES

If "Yes", answer questions a - j. If "No", move on to Section 8.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may cause reduction in population or loss of individuals of any threatened or endangered species, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E2o	☐	☐
b. The proposed action may result in a reduction or degradation of any habitat used by any rare, threatened or endangered species, as listed by New York State or the federal government.	E2o	☐	☐
c. The proposed action may cause reduction in population, or loss of individuals, of any species of special concern or conservation need, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E2p	☐	☐
d. The proposed action may result in a reduction or degradation of any habitat used by any species of special concern and conservation need, as listed by New York State or the Federal government.	E2p	☐	☐

e. The proposed action may diminish the capacity of a registered National Natural Landmark to support the biological community it was established to protect.	E3c	☐	☐
f. The proposed action may result in the removal of, or ground disturbance in, any portion of a designated significant natural community. Source: _____	E2n	☐	☐
g. The proposed action may substantially interfere with nesting/breeding, foraging, or over-wintering habitat for the predominant species that occupy or use the project site.	E2m	☐	☐
h. The proposed action requires the conversion of more than 10 acres of forest, grassland or any other regionally or locally important habitat. Habitat type & information source: _____ _____	E1b	☐	☐
i. Proposed action (commercial, industrial or recreational projects, only) involves use of herbicides or pesticides.	D2q	☐	☐
j. Other impacts: _____ _____		☐	☐

8. Impact on Agricultural Resources

The proposed action may impact agricultural resources. (See Part 1. E.3.a. and b.) ☑ NO ☐ YES

If "Yes", answer questions a - h. If "No", move on to Section 9.

	Relevant Part I Question(s)	**No, or small impact may occur**	**Moderate to large impact may occur**
a. The proposed action may impact soil classified within soil group 1 through 4 of the NYS Land Classification System.	E2c, E3b	☐	☐
b. The proposed action may sever, cross or otherwise limit access to agricultural land (includes cropland, hayfields, pasture, vineyard, orchard, etc).	E1a, Elb	☐	☐
c. The proposed action may result in the excavation or compaction of the soil profile of active agricultural land.	E3b	☐	☐
d. The proposed action may irreversibly convert agricultural land to non-agricultural uses, either more than 2.5 acres if located in an Agricultural District, or more than 10 acres if not within an Agricultural District.	E1b, E3a	☐	☐
e. The proposed action may disrupt or prevent installation of an agricultural land management system.	El a, E1b	☐	☐
f. The proposed action may result, directly or indirectly, in increased development potential or pressure on farmland.	C2c, C3, D2c, D2d	☐	☐
g. The proposed project is not consistent with the adopted municipal Farmland Protection Plan.	C2c	☐	☐
h. Other impacts: _____		☐	☐

9. Impact on Aesthetic Resources
The land use of the proposed action are obviously different from, or are in sharp contrast to, current land use patterns between the proposed project and a scenic or aesthetic resource. (Part 1. E.1.a, E.1.b, E.3.h.)
If "Yes", answer questions a - g. If "No", go to Section 10.

☐ NO ☑ YES

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Proposed action may be visible from any officially designated federal, state, or local scenic or aesthetic resource.	E3h	☑	☐
b. The proposed action may result in the obstruction, elimination or significant screening of one or more officially designated scenic views.	E3h, C2b	☑	☐
c. The proposed action may be visible from publicly accessible vantage points: i. Seasonally (e.g., screened by summer foliage, but visible during other seasons) ii. Year round	E3h	☑ ☑	☐ ☐
d. The situation or activity in which viewers are engaged while viewing the proposed action is: i. Routine travel by residents, including travel to and from work ii. Recreational or tourism based activities	E3h E2q, E1c	☑ ☑	☐ ☐
e. The proposed action may cause a diminishment of the public enjoyment and appreciation of the designated aesthetic resource.	E3h	☑	☐
f. There are similar projects visible within the following distance of the proposed project: 0-1/2 mile ½ -3 mile 3-5 mile 5+ mile	D1a, E1a, D1f, D1g	☑	☐
g. Other impacts: _____ _____		☐	☐

10. Impact on Historic and Archeological Resources
The proposed action may occur in or adjacent to a historic or archaeological resource. (Part 1. E.3.e, f. and g.)
If "Yes", answer questions a - e. If "No", go to Section 11.

☐ NO ☑ YES

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may occur wholly or partially within, or substantially contiguous to, any buildings, archaeological site or district which is listed on the National or State Register of Historical Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places.	E3e	☑	☐
b. The proposed action may occur wholly or partially within, or substantially contiguous to, an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory.	E3f	☑	☐
c. The proposed action may occur wholly or partially within, or substantially contiguous to, an archaeological site not included on the NY SHPO inventory. Source: _____	E3g	☑	☐

d. Other impacts: _____ _____		☐	☐
e. If any of the above (a-d) are answered "Moderate to large impact may occur", continue with the following questions to help support conclusions in Part 3:			
i. The proposed action may result in the destruction or alteration of all or part of the site or property.	E3e, E3g, E3f	☑	☐
ii. The proposed action may result in the alteration of the property's setting or integrity.	E3e, E3f, E3g, E1a, E1b	☑	☐
iii. The proposed action may result in the introduction of visual elements which are out of character with the site or property, or may alter its setting.	E3e, E3f, E3g, E3h, C2, C3	☑	☐

11. Impact on Open Space and Recreation

The proposed action may result in a loss of recreational opportunities or a reduction of an open space resource as designated in any adopted municipal open space plan.
(See Part 1. C.2.c, E.1.c., E.2.q.)
If "Yes", answer questions a - e. If "No", go to Section 12.

☑ NO ☐ YES

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in an impairment of natural functions, or "ecosystem services", provided by an undeveloped area, including but not limited to stormwater storage, nutrient cycling, wildlife habitat.	D2e, E1b E2h, E2m, E2o, E2n, E2p	□	□
b. The proposed action may result in the loss of a current or future recreational resource.	C2a, E1c, C2c, E2q	□	□
c. The proposed action may eliminate open space or recreational resource in an area with few such resources.	C2a, C2c E1c, E2q	□	□
d. The proposed action may result in loss of an area now used informally by the community as an open space resource.	C2c, E1c	□	□
e. Other impacts: _____ _____		□	□

12. Impact on Critical Environmental Areas

The proposed action may be located within or adjacent to a critical environmental area (CEA). (See Part 1. E.3.d)
If "Yes", answer questions a - c. If "No", go to Section 13.

☑ NO ☐ YES

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in a reduction in the quantity of the resource or characteristic which was the basis for designation of the CEA.	E3d	□	□
b. The proposed action may result in a reduction in the quality of the resource or characteristic which was the basis for designation of the CEA.	E3d	□	□
c. Other impacts: _____ _____		□	□

13. Impact on Transportation
The proposed action may result in a change to existing transportation systems. ☐ NO ☑ YES
(See Part 1. D.2.j)
If "Yes", answer questions a - f. If "No", go to Section 14.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Projected traffic increase may exceed capacity of existing road network.	D2j	☑	☐
b. The proposed action may result in the construction of paved parking area for 500 or more vehicles.	D2j	☑	☐
c. The proposed action will degrade existing transit access.	D2j	☑	☐
d. The proposed action will degrade existing pedestrian or bicycle accommodations.	D2j	☑	☐
e. The proposed action may alter the present pattern of movement of people or goods.	D2j	☑	☐
f. Other impacts: _____ _____		☐	☐

14. Impact on Energy
The proposed action may cause an increase in the use of any form of energy. ☐ NO ☑ YES
(See Part 1. D.2.k)
If "Yes", answer questions a - e. If "No", go to Section 15.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action will require a new, or an upgrade to an existing, substation.	D2k	☑	☐
b. The proposed action will require the creation or extension of an energy transmission or supply system to serve more than 50 single or two-family residences or to serve a commercial or industrial use.	D1f, D1q, D2k	☑	☐
c. The proposed action may utilize more than 2,500 MWhrs per year of electricity.	D2k	☑	☐
d. The proposed action may involve heating and/or cooling of more than 100,000 square feet of building area when completed.	D1g	☑	☐
e. Other Impacts: _____ _____		☐	☐

15. Impact on Noise, Odor, and Light
The proposed action may result in an increase in noise, odors, or outdoor lighting. ☐ NO ☑ YES
(See Part 1. D.2.m., n., and o.)
If "Yes", answer questions a - f. If "No", go to Section 16.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may produce sound above noise levels established by local regulation.	D2m	☑	☐
b. The proposed action may result in blasting within 1,500 feet of any residence, hospital, school, licensed day care center, or nursing home.	D2m, E1d	☑	☐
c. The proposed action may result in routine odors for more than one hour per day.	D2o	☑	☐

d. The proposed action may result in light shining onto adjoining properties.	D2n	☑	☐
e. The proposed action may result in lighting creating sky-glow brighter than existing area conditions.	D2n, E1a	☑	☐
f. Other impacts: _____ _____		☐	☐

16. Impact on Human Health

The proposed action may have an impact on human health from exposure to new or existing sources of contaminants. (See Part 1.D.2.q., E.1. d. f. g. and h.) ☑ NO ☐ YES

If "Yes", answer questions a - m. If "No", go to Section 17.

	Relevant Part I Question(s)	No,or small impact may cccur	Moderate to large impact may occur
a. The proposed action is located within 1500 feet of a school, hospital, licensed day care center, group home, nursing home or retirement community.	E1d	☐	☐
b. The site of the proposed action is currently undergoing remediation.	E1g, E1h	☐	☐
c. There is a completed emergency spill remediation, or a completed environmental site remediation on, or adjacent to, the site of the proposed action.	E1g, E1h	☐	☐
d. The site of the action is subject to an institutional control limiting the use of the property (e.g., easement or deed restriction).	E1g, E1h	☐	☐
e. The proposed action may affect institutional control measures that were put in place to ensure that the site remains protective of the environment and human health.	E1g, E1h	☐	☐
f. The proposed action has adequate control measures in place to ensure that future generation, treatment and/or disposal of hazardous wastes will be protective of the environment and human health.	D2t	☐	☐
g. The proposed action involves construction or modification of a solid waste management facility.	D2q, E1f	☐	☐
h. The proposed action may result in the unearthing of solid or hazardous waste.	D2q, E1f	☐	☐
i. The proposed action may result in an increase in the rate of disposal, or processing, of solid waste.	D2r, D2s	☐	☐
j. The proposed action may result in excavation or other disturbance within 2000 feet of a site used for the disposal of solid or hazardous waste.	E1f, E1g E1h	☐	☐
k. The proposed action may result in the migration of explosive gases from a landfill site to adjacent off site structures.	E1f, E1g	☐	☐
l. The proposed action may result in the release of contaminated leachate from the project site.	D2s, E1f, D2r	☐	☐
m. Other impacts: _____ _____			

17. Consistency with Community Plans

The proposed action is not consistent with adopted land use plans. ☑ NO ☐ YES

(See Part 1. C.1, C.2. and C.3.)

If "Yes", answer questions a - h. If "No", go to Section 18.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action's land use components may be different from, or in sharp contrast to, current surrounding land use pattern(s).	C2, C3, D1a E1a, E1b	☐	☐
b. The proposed action will cause the permanent population of the city, town or village in which the project is located to grow by more than 5%.	C2	☐	☐
c. The proposed action is inconsistent with local land use plans or zoning regulations.	C2, C2, C3	☐	☐
d. The proposed action is inconsistent with any County plans, or other regional land use plans.	C2, C2	☐	☐
e. The proposed action may cause a change in the density of development that is not supported by existing infrastructure or is distant from existing infrastructure.	C3, D1c, D1d, D1f, D1d, Elb	☐	☐
f. The proposed action is located in an area characterized by low density development that will require new or expanded public infrastructure.	C4, D2c, D2d D2j	☐	☐
g. The proposed action may induce secondary development impacts (e.g., residential or commercial development not included in the proposed action)	C2a	☐	☐
h. Other: _____ _____		☐	☐

18. Consistency with Community Character

The proposed project is inconsistent with the existing community character. ☑ NO ☐ YES

(See Part 1. C.2, C.3, D.2, E.3)

If "Yes", answer questions a - g. If "No", proceed to Part 3.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may replace or eliminate existing facilities, structures, or areas of historic importance to the community.	E3e, E3f, E3g	☐	☐
b. The proposed action may create a demand for additional community services (e.g. schools, police and fire)	C4	☐	☐
c. The proposed action may displace affordable or low-income housing in an area where there is a shortage of such housing.	C2, C3, D1f D1g, E1a	☐	☐
d. The proposed action may interfere with the use or enjoyment of officially recognized or designated public resources.	C2, E3	☐	☐
e. The proposed action is inconsistent with the predominant architectural scale and character.	C2, C3	☐	☐
f. Proposed action is inconsistent with the character of the existing natural landscape.	C2, C3 E1a, E1b E2g, E2h	☐	☐
g. Other impacts: _____ _____		☐	☐

PRINT FULL FORM

Agency Use Only [If Applicable]

Project :

Date :

Full Environmental Assessment Form
Part 3 - Evaluation of the Magnitude and Importance of Project Impacts
and
Determination of Significance

Part 3 provides the reasons in support of the determination of significance. The lead agency must complete Part 3 for every question in Part 2 where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.

Based on the analysis in Part 3, the lead agency must decide whether to require an environmental impact statement to further assess the proposed action or whether available information is sufficient for the lead agency to conclude that the proposed action will not have a significant adverse environmental impact. By completing the certification on the next page, the lead agency can complete its determination of significance.

Reasons Supporting This Determination:

To complete this section:

- Identify the impact based on the Part 2 responses and describe its magnitude. Magnitude considers factors such as severity, size or extent of an impact.
- Assess the importance of the impact. Importance relates to the geographic scope, duration, probability of the impact occurring, number of people affected by the impact and any additional environmental consequences if the impact were to occur.
- The assessment should take into consideration any design element or project changes.
- Repeat this process for each Part 2 question where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.
- Provide the reason(s) why the impact may, or will not, result in a significant adverse environmental impact
- For Conditional Negative Declarations identify the specific condition(s) imposed that will modify the proposed action so that no significant adverse environmental impacts will result.
- Attach additional sheets, as needed.

1.(b) The existing averaged slope to the lake is greater than 15% slope and will be impacted during construction of the pedestrian access to the lake front. No adverse impact will occur as all necessary erosion control measures and appropriate slope stabilization practices will be put in place throughout the duration of construction.

1.(d) The site is intended to generally balance grading with no excessive removal(s), noting that some excess topsoil or unsuitable materials may be removed from the site if deemed appropriate or necessary. Erosion control measures and relocation of materials will follow all applicable guidelines and requirements. As such, there will be no adverse impacts.

3. The project is contiguous to Seneca Lake and will include creation of a waterbody (Stormwater Management Facility - SWMF). SWMF's will be designed and constructed in accordance with NYSDEC stormwater design manual and all applicable erosion control measures will be followed. A Stormwater Pollution Prevention Plan (SWPPP) will be drafted and reviewed as part of the site plan approval process and all stormwater post-construction quality, quantity and green infrastructure requirements will be complied with to protect Seneca Lake. Therefore, no adverse impact will occur.

4. All groundwater in this area is tributary to Seneca Lake and therefore is provided the same protections as under #3 above.

9. Although the property is already privately owned and operated, the proposed development will increase the property density and will add buildings and square footages to the property that may or will likely alter perceived existing views of Seneca Lake from the public roadway. However, and because of existing trees (living and dead) and topography, the existing views are not open and unobstructed. The proposed development is not expected to significantly compromise existing views and certain view corridors will be maintained. Existing private open spaces and recreational areas will be replaced with new open spaces and recreational areas and other amenities for the enjoyment of residents and guests. Therefore, no adverse impacts are anticipated.

10. The project is within an archaeologically sensitive area (e.g. circles and squares) and required a Phase 1A and 1B survey to be performed and submitted to the State Historic Preservation Office (SHPO). The study (prepared by by H.A.Z. Ex. - Christopher Hazel, RPA) concludes that neither pre-contact nor historic artifacts nor sites were present within the Area of Potential Effect (APE) and no further archaeological investigation is recommended.The only structure on-site identified as potentially historically significant is the monument (MDS 3 in submitted report), which is a small memorial adjacent to the howitzer. If deemed significant by SHPO, the structure will either be incorporated into the project and preserved on-site -or- will be relocated to the new American Legion location. Therefore, no adverse impact will occur.

13. A traffic study was performed by SRF Associates for the proposed project and relocated driveway (450' north of Snell Road) and concludes that all approaches to the driveway operate at acceptable levels of service and no mitigation is warranted at this time. The entrance drive and private roadways within the site are designed for adequate circulation, parking, loading and emergency vehicle access in accordance with the NYS Fire Code.

14. There will be an increase in energy usage for the as a result of the developed project, but the project will be constructed in accordance with all applicable energy codes, which includes such strategies as the use of LED light fixtures, proper envelope insulations and thermal barriers, NYSERDA guidelines, and other energy efficiency code requirements and design guidelines. Therefore there will be no adverse impacts on energy.

15. Historic use of this property includes events, parking, gatherings at the pavilion, fire work shows etc. There is no anticipated increase in noise levels that would exceed local regulations. Lighting on the site will be downward facing LED fixtures at appropriate heights and levels avoiding shining on to adjacent properties. Therefore there is no adverse impact.

Determination of Significance - Type 1 and Unlisted Actions

SEQR Status: ☑ Type 1 ☐ Unlisted

Identify portions of EAF completed for this Project: ☑ Part 1 ☑ Part 2 ☑ Part 3

Upon review of the information recorded on this EAF, as noted, plus this additional support information

and considering both the magnitude and importance of each identified potential impact, it is the conclusion of the Geneva City Council as lead agency that:

☑ A. This project will result in no significant adverse impacts on the environment, and, therefore, an environmental impact statement need not be prepared. Accordingly, this negative declaration is issued.

☐ B. Although this project could have a significant adverse impact on the environment, that impact will be avoided or substantially mitigated because of the following conditions which will be required by the lead agency:

There will, therefore, be no significant adverse impacts from the project as conditioned, and, therefore, this conditioned negative declaration is issued. A conditioned negative declaration may be used only for UNLISTED actions (see 6 NYCRR 617.7(d)).

☐ C. This Project may result in one or more significant adverse impacts on the environment, and an environmental impact statement must be prepared to further assess the impact(s) and possible mitigation and to explore alternatives to avoid or reduce those impacts. Accordingly, this positive declaration is issued.

Name of Action: 1115 Lochland Road - Mixed Use Development

Name of Lead Agency: Geneva City Council

Name of Responsible Officer in Lead Agency: Sage B. Gerling

Title of Responsible Officer: City Manager

Signature of Responsible Officer in Lead Agency: Date:

Signature of Preparer (if different from Responsible Officer) Date:

For Further Information:

Contact Person: Sage B. Gerling, City Manager

Address: 47 Castle Street, Geneva, New York 14456

Telephone Number: 315-789-6104

E-mail: sgerling@geneva.ny.us

For Type 1 Actions and Conditioned Negative Declarations, a copy of this Notice is sent to:

Chief Executive Officer of the political subdivision in which the action will be principally located (e.g., Town / City / Village of)
Other involved agencies (if any)
Applicant (if any)
Environmental Notice Bulletin: http://www.dec.ny.gov/enb/enb.html

PRINT FULL FORM

Traffic Impact Study

for the proposed

1115 Lochland Road Redevelopment

City of Geneva
Ontario County, New York

June 2021

Project No. 41050

Prepared For:

Mr. Bill Strohmeyer, AIA
Wjca Inc.
763 Susquehanna Ave #4
Franklin Lakes, New Jersey 07417

Prepared By:

SRF ASSOCIATES
www.srfa.net
Transportation Planning / Engineering / Design

3495 Winton Place
Building E, Suite 110
Rochester, New York 14623

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

LIST OF REFERENCES

1. Highway Capacity Manual, Sixth Edition. Transportation Research Board. National Research Council, Washington, DC. 2016.
2. New York State Department of Transportation (NYSDOT) Traffic Data Viewer. 2020. Retrieved from https://www.dot.ny.gov/tdv.
3. Trip Generation, Tenth Edition. Institute of Transportation Engineers. Washington, DC. 2017.
4. Effect of the COVID-19 Pandemic on Traffic in New York State in 2020. NYSDOT. Retrieved from https://www.dot.ny.gov/divisions/engineering/technical-services/highway-data-services

EXECUTIVE SUMMARY

OVERVIEW

The purpose of this report is to identify the potential traffic impacts associated with the proposed 1115 Lochland Road Redevelopment in the City of Geneva, Ontario County, New York. The operating characteristics of the proposed access points and impacts to the adjacent roadway network are identified and mitigating measures, if any, are provided to minimize capacity or safety concerns.

In an effort to define traffic impact, this analysis establishes 2021 existing base traffic conditions, projects background traffic flow including area growth and/or additional traffic resulting from new development in the area, and determines the traffic operations that would result from the development of the proposed mixed use project.

The proposed development is located at the northeast corner of NY 14 and Snell Rd in the City of Geneva, Ontario County, New York. The site is currently occupied by an American Legion building. Surrounding the proposed development is Lochland School Inc. to the north, Seneca Lake to the east, Bellhurst Castle and Winery to the south, and NY 14 is to the west. Land uses in the vicinity of the project site primarily include residential, commercial, and educational uses. The study area consists of the intersections of:

- NY 14/N Cloverleaf Dr
- NY 14/S Cloverleaf Dr
- NY 14/Snell Rd/Bellhurst Castle Driveway

The redevelopment consists of 57 units of townhomes, a 125 room hotel, and a 10,000 square foot (SF) restaurant that includes a 4,000 sf microbrewery. Access is proposed via a new full access driveway with one entrance lane and separate right and left turn exit lanes.

Construction is anticipated to be completed within two years. Widely accepted methodology for preparing traffic impact studies requires that any projects in the study area that are currently approved and/or under construction must be considered in the traffic analysis. City of Geneva officials were contacted to discuss projects within the study area that are under construction and/or approved. No information on projects was provided by City of Geneva officials regarding background projects for inclusion in this study.

To account for normal increases in background traffic growth and any unforeseen developments in the project study area, a conservative growth rate of 1.0% per year was applied to the 2021 base traffic volumes. This growth rate was determined based upon an evaluation of historical traffic data on nearby study area roadways. Ambient growth calculations indicated that traffic volumes have been decreasing at an average rate of 3.61% per year since 2011 along NY 14.

CONCLUSIONS & RECOMMENDATIONS

This study evaluates the potential traffic impacts resulting from the proposed 1115 Lochland Road Redevelopment. Based upon the analyses, the results indicate that the proposed development will not have significant adverse traffic impacts on the existing roadway network. The following sets forth conclusions and recommendations based upon the results of the

analyses:

1. The proposed development is expected to generate approximately 83 entering/76 exiting vehicle trips during the weekday AM peak hour, 118 entering/79 exiting vehicle trips during the weekday PM peak hour, and 120 entering/98 exiting vehicle trips during the weekend SAT peak hour.

2. The existing crash investigation did not reveal inherent safety deficiencies related to the geometric design of the study area intersections.

3. The projected traffic impacts resulting from full development of the proposed project during all peak hours can be accommodated by the existing transportation network with no highway improvements.

4. All approaches at the site driveway intersection are projected to operate at LOS "C" or better under full build conditions during all peak hours.

5. The combination of projected southbound traffic volumes (shown in Figure 8 of the TIS for full development conditions) turning left from NY 14 onto the proposed driveway indicate guidelines for a left-turn treatment are satisfied during both the weekday PM and weekend midday SAT peak hours.

   However, given the traffic volumes used in this evaluation are based upon estimates for 2021 Base volumes, and estimates for the restaurant/brewery that has significant variability associated with peak times of operation, no left-turn lane is recommended at this time.

   Instead, a post traffic study that includes actual volumes, operations and safety is recommended at the intersection, six-months to a year after opening, as requested by the City, to better assess the need for a left-turn lane based on empirical data. It is important to note too, that the southbound NYS 14 approach at the proposed driveway operates at a LOS "A" during all peak hours under full build conditions, without the need for any roadway mitigation.

6. For purposes of the environmental review of the proposed project pursuant to the State Environmental Quality Review Act (SEQRA), it is our firm's professional opinion that the proposed project will not result in any potentially significant adverse traffic impacts to the study area intersections.

I. INTRODUCTION

The purpose of this report is to identify the potential traffic impacts associated with the proposed 1115 Lochland Road Redevelopment in the City of Geneva, Ontario County, New York. The operating characteristics of the proposed access points and impacts to the adjacent roadway network are identified and mitigating measures, if any, are provided to minimize capacity or safety concerns.

In an effort to define traffic impact, this analysis establishes 2021 existing base traffic conditions, projects background traffic flow including area growth and/or additional traffic resulting from new development in the area, and determines the traffic operations that would result from the development of the proposed mixed use project.

II. LOCATION

The proposed development is located at the northeast corner of NY 14 and Snell Rd in the City of Geneva, Ontario County, New York. The site is currently occupied by an American Legion building. Surrounding the proposed development is Lochland School Inc. to the north, Seneca Lake to the east, Bellhurst Castle and Winery to the south, and NY 14 is to the west. Land uses in the vicinity of the project site primarily include residential, commercial, and educational uses. The study area consists of the intersections of:

- NY 14/N Cloverleaf Dr
- NY 14/S Cloverleaf Dr
- NY 14/Snell Rd/Bellhurst Castle Driveway

The site location and study area are shown in **Figure 1** (all figures are included at the end of the report).

III. EXISTING HIGHWAY SYSTEM

Details of the existing roadway network in the vicinity of the project site are summarized in **Table 1** below. The Annual Average Daily Traffic (AADT) counts referenced below were obtained based upon the most recent traffic counts collected by the New York State Department of Transportation (NYSDOT) and/or recent turning movement counts at the study intersections.

TABLE I: EXISTING HIGHWAY SYSTEM

ROADWAY[1]	CLASS[2]	AGENCY[3]	SPEED LIMIT[4]	# OF TRAVEL LANES[5]	TRAVEL PATTERN/ DIRECTION	EST. AADT[6] & SOURCE[7]
S Main St (NY-14)	14	NYSDOT	35	2	Two-way/ North-South	6,461 NYSDOT (2019)
N Cloverleaf Dr	19	City of Geneva	Not Posted	2	Two-way/ East-West	N/A
S Cloverleaf Dr	19	City of Geneva	Not Posted	2	Two-way/ East-West	N/A
Snell Rd	19	City of Geneva	30	2	Two-way/ East-West	N/A

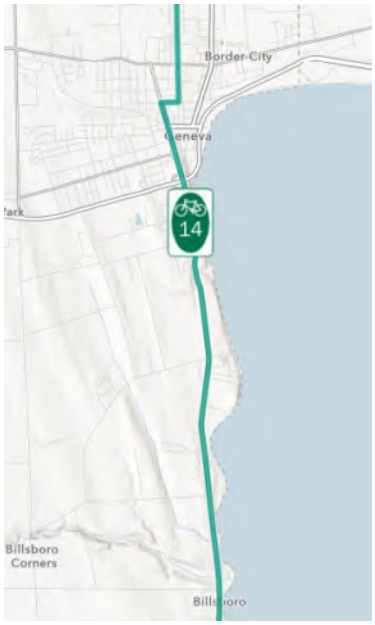
Notes:
1. Route Name/Number: "NY" = New York
2. State Functional Classification of Roadway (All are Urban): 14 = Principal Arterial, 19 = Local
3. Jurisdictional Agency of Roadway. "NYSDOT" = New York State Department of Transportation
4. Posted or Statewide Limit in Miles per Hour (mph).
5. Excludes turning/auxiliary lanes developed at intersections.
6. Estimated AADT in Vehicles per Day (vpd).
7. AADT Source (Year).

Figure 2 illustrates the lane geometry at each of the study intersections and the AADT volumes on the study roadways.

PEDESTRIAN AND BICYCLE FACILITIES

There are existing sidewalks along both sides of NY 14 that extend north past N Cloverleaf Dr and south to Kings Lane. There is a small segment of sidewalk to the east of NY 14 to the south of One Mile Point.

State Bike Route 14 is an established bike route located along NY 14 which is noted by intermittent signs along the road. See aerial image to the right which shows State Bike Route 14.



TRANSIT FACILITIES

There is no public transit service within the study area.

IV. EXISTING TRAFFIC CONDITIONS

A. Peak Intervals for Analysis

Given the functional characteristics of the land use proposed for the site (residential townhomes, restaurant/brewery), the peak hours selected for analysis are the weekday commuter AM and PM peaks along with the Saturday (SAT) afternoon peak. The combination of site traffic and adjacent through traffic produces the greatest demand during these time periods.

B. Existing Traffic Volume Data

Weekday commuter AM (8:00-9:00AM), PM (4:00-5:00PM), and SAT midday (2:00-3:00 PM) peak hour volumes were collected by SRF Associates at the study area intersections, as noted in *Section II* above. Turning movement count data was collected at the study intersections on Saturday, May 22, 2021, Tuesday May 25, 2021 for the NY 14/N Cloverleaf Dr and NY 14/S Cloverleaf Dr intersection AM and PM peaks, and Thursday, May 27, 2021 for the NY 14/Snell Rd/Bellhurst Castle driveway intersection for the AM and PM peaks. The unadjusted 2021 weekday peak hour volumes for the AM and PM commuter peak hours are reflected in **Figure 3A**.

All turning movement count data was collected on a typical weekday. It is noted, however, that traffic volumes are currently lower than normal as a result of business restrictions resulting from COVID-19. Traffic volumes were compared to traffic data obtained in various locations before the COVID-19 pandemic by the NYSDOT in 2017 and 2019. Also, the NYSDOT also released a study in February 2021 Effect of the COVID-19 Pandemic on Traffic in New York State in 2020 which illustrates the percent difference for 2020 weekday ADTs to average weekday ADTs prior to 2021. Both the NYSDOT study and historic counts were used to adjust the collected data to reflect 2021 representative traffic conditions by increasing the collected traffic volumes. This is consistent with NYSDOT and ITE methodology for adjustments related to collected traffic volumes affected by the COVID-19 pandemic. The collected traffic volumes were generally found to be approximately 20% lower during the AM peak hour and 12% lower during the PM and SAT peak hours based upon comparison to the historical data. The collected traffic volume data were increased by the respective percentages and the representative 2021 weekday peak hour base volumes used for analysis purposes in this study are reflected in **Figure 3B**.

C. Field Observations

The study intersections were observed during both peak intervals to assess current traffic operations.

D. Existing Crash Investigation

The purpose of this crash analysis is to identify inherent safety issues by studying and quantifying historical crashes at the study intersections and identifying potential crash patterns and clusters.

A crash cluster is defined as an abnormal occurrence of similar crash types occurring at approximately the same location or involving the same geometric features. The severity of the

crashes should also be considered. A history of crashes is an indication that further analysis is required to determine the cause(s) of the crash(es) and to identify what actions, if any, could be taken to mitigate the crashes.

A crash investigation within the study area was conducted to assess the safety history from February 1, 2018 through January 31, 2021. The data was provided by the NYSDOT through a Freedom of Information (FOIL) request.

Reportable (non-injury, injury, and fatal injury) type crashes are defined as damage to one person's property in the amount of $1,001 or more. The Non-Reportable type crashes result in property damage of $1,000 or less. Crash rates were computed for the study intersections and compared with NYSDOT average crash rates for similar intersections, as summarized in the following table. Intersection rates are listed as accidents (crashes) per million entering vehicle (Acc/MEV). Pertinent crash data is provided in the Appendices.

TABLE II: EXISTING CRASH INVESTIGATION

INTERSECTION	TOTAL NO. OF ACCIDENTS	ACTUAL CRASH RATE	STATEWIDE AVERAGE CRASH RATE
NY 14/N Cloverleaf Dr	1	0.13	0.18
NY 14/S Cloverleaf Dr	1	0.12	0.18
NY 14/Snell Rd/Bellhurst Castle Dwy	4	0.48	0.31

NY 14/N Cloverleaf Dr

As shown in Table II, the study intersection has a crash rate that is less than the statewide average accident rates for similar intersections. No discernable crash patterns were identified related to geometric concerns and no inherent safety deficiencies exist.

NY 14/S Cloverleaf Dr

The study intersection has a crash rate lower than the statewide average. No discernable crash patterns were identified related to geometric concerns and no inherent safety deficiencies exist.

NY 14/Snell Rd/Bellhurst Castle Dwy

The study intersection has a crash rate slightly higher than the statewide average. One of these accidents was a collision with an animal. When that accident is neglected, the crash rate drops to 0.36 which is still slightly higher than the statewide average. No discernable crash patterns were identified related to geometric concerns and no inherent safety deficiencies exist.

V. FUTURE AREA DEVELOPMENT AND LOCAL GROWTH

Construction of the proposed 1115 Lochland Road Redevelopment is anticipated to be completed within two years. Widely-accepted methodology for preparing traffic impact studies requires that any projects in the study area that are currently approved and/or under construction must be considered in the traffic analysis. City of Geneva officials were contacted to discuss projects within the study area that are under construction and/or approved. No information was provided regarding pertinent background developments.

To account for normal increases in background traffic growth and any unforeseen developments in the project study area, a conservative growth rate of 1.0% per year was applied to the 2021 base traffic volumes, which takes into consideration that we didn't receive information on whether there were or weren't background projects to include in this study from the City. This growth rate was determined based upon an evaluation of historical traffic data on nearby study area roadways. Ambient growth calculations indicated that traffic volumes have been decreasing at an average rate of 3.61% per year since 2011 along NY 14. All ambient growth calculations are included in the appendix. The 2023 background traffic volumes are depicted in **Figure 4.**

VI. PROPOSED DEVELOPMENT

A. Description

The proposed 1115 Lochland Road Redevelopment will be constructed in the next two years. The proposed project consists of 57 units of townhomes, a hotel with 125 rooms, and a 10,000 square foot (SF) restaurant with a microbrewery that takes up 4,000 SF. Access is proposed via a new full access driveway along NY 14 which will have separate right and left turn lanes. **Figure 5** depicts the proposed site plan.

B. Site Traffic Generation

The volume of traffic generated by a site is dependent on the intended land use and size of the development. Trip generation is an estimate of the number of trips generated by a specific building or land use. These trips represent the volume of traffic entering and exiting the development. Trip Generation, 10th Edition (2017) published by the Institute of Transportation Engineers (ITE) is used as a reference for this information. The trip rate for the peak hour of the generator may or may not coincide in time or volume with the trip rate for the peak hour of adjacent street traffic. Volumes generated during the peak hour of the adjacent street traffic and proposed land uses, in this case, the weekday commuter AM and PM peaks and weekend SAT midday peak, represent a more critical volume when analyzing the capacity of the system; those intervals will provide the basis of this analysis.

According to the ITE, the following steps are recommended when determining trip generation for proposed land uses:

i. Check for the availability of local trip generation rates for comparable uses.

ii. If local trip data for similar developments are not available and time and funding permit, conduct trip generation studies at sites with characteristics similar to those of the proposed development.

Trip generation data for the proposed project was derived from data obtained at New York Beer Project in the Lockport, NY along S Transit Road in Irondequoit given the similar services provided at the proxy site.

Table III shows the total site generated trips for the weekday AM and PM peak hours and SAT midday peak hour for the proposed project. Also, data for a 10,000 SF microbrewery is shown in the table for comparison to a 4,000 SF microbrewery and 6,000 SF restaurant. Given that this microbrewery alone data resulted in slightly less trips, conservatively, data for the 4,000 SF microbrewery and 6,000 SF restaurant is used for analysis.

TABLE III: SITE GENERATED TRIPS

LAND USE	ITE LUC[1]	SIZE[2]	AM PEAK HOUR		PM PEAK HOUR		SAT PEAK HOUR	
			ENTER	EXIT	ENTER	EXIT	ENTER	EXIT
Hotel	310	125 Rooms	34	23	35	33	51	40
Multi-family Housing (Low-Rise)	220	57 DU	6	22	23	13	15	13
High-Turnover (Sit-Down) Restaurant	932	6,000 SF	33	27	36	22	34	33
Microbrewery	Local Data	4,000 SF	10	4	24	11	20	12
Microbrewery	Local Data	10,000 SF	10	4	59	27	49	29
Total			83	76	118	79	120	98

Notes:
1. LUC = Land Use Code.
2. DU = Dwelling Units

The proposed development is expected to generate approximately 83 entering/76 exiting vehicle trips during the weekday AM peak hour, 118 entering/79 exiting vehicle trips during the weekday PM peak hour, and 120 entering/98 exiting vehicle trips during the weekend SAT peak hour.

C. Site Traffic Distribution

The cumulative effect of site traffic on the transportation network is dependent on the origins and destinations of that traffic and the location of the access drive serving the site.

The proposed arrival/departure distribution of traffic to be generated at this site is considered a function of several parameters, including the following:

- Existing highway network;
- Proximity and access to Route 20;

- Population centers;
- Existing traffic patterns; and
- Existing traffic conditions and controls

Figure 6 shows the anticipated trip distribution pattern percentages for the proposed development traffic. **Figure 7** show the resulting site generated traffic based on those percentages.

VII. FULL DEVELOPMENT VOLUMES

The projected design hour traffic volumes were developed for the weekday AM and PM peak hours, and SAT midday peak hour by combining the future background traffic conditions (Figure 4), and projected site generated volumes for full build out of the proposed development (Figure 7) to yield the total traffic conditions expected under full development conditions. **Figure 8** illustrates the total weekday AM, PM, and SAT peak hour volumes anticipated for the proposed development under full development conditions.

VIII. CAPACITY ANALYSIS

A. Description of Capacity Analysis

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

Six Levels of Service are defined for analysis purposes. They are assigned letter designations, from "A" to "F", with LOS "A" representing the conditions with little to no delay, and LOS "F" conditions with very long delays. Suggested ranges of service capacity and an explanation of Levels of Service are included in the Appendix.

The standard procedure for capacity analysis of signalized and un-signalized intersections is outlined in the Highway Capacity Manual (HCM 2016) published by the Transportation Research Board. Traffic analysis software, Synchro 11, which is based on procedures and methodologies contained in the HCM, was used to analyze operating conditions at study area intersections. The procedure yields a Level of Service based on the HCM as an indicator of how well intersections operate.

B. Capacity Analysis Results

Existing and background operating conditions during the peak study periods are evaluated to determine a basis for comparison with the projected future conditions. The projected future

traffic volumes generated by the proposed 1115 Lochland Rd Redevelopment were analyzed to assess the operations of the intersections in the study area.

Capacity results for existing 2021 base, 2023 background and 2023 full build conditions are listed in **Table IV**. The discussion following the table summarizes capacity conditions. All capacity analysis calculations are included in the Appendices.

TABLE 4: CAPACITY ANALYSIS RESULTS

INTERSECTION	2021 EXISTING BASE CONDITIONS						2023 BACKGROUND CONDITIONS						2023 FULL BUILD CONDITIONS					
	AM		PM		SAT		AM		PM		SAT		AM		PM		SAT	
1. NY 14/N Cloverleaf Dr (U)																		
NB - NY 14	A	7.7	A	8.1	A	8.0	A	7.7	A	8.1	A	8.0	A	7.9	A	8.3	A	8.3
EB - N Cloverleaf Dr	A	9.8	B	10.6	B	10.9	A	9.8	B	10.7	B	10.9	B	10.2	B	11.4	B	11.8
2. NY 14/S Cloverleaf Dr (U)																		
NB - NY 14	A	7.9	A	8.1	A	8.5	A	7.9	A	8.1	A	8.5	A	8.1	A	8.4	A	8.9
EB - S Cloverleaf Dr	B	11.9	B	13.7	C	15.8	B	12.0	B	14.0	C	16.4	B	12.8	C	15.8	C	20.3
3. NY 14/Snell Rd/Bellhurst Castle Dwy (U)																		
NB - NY 14	A	7.7	A	8.0	A	8.1	A	7.7	A	8.0	A	8.1	A	7.8	A	8.1	A	8.2
EB - Bellhurst Castle Dwy	B	11.2	B	14.1	B	13.7	B	11.3	B	14.4	B	13.9	B	12.0	C	15.5	C	15.1
WB - Snell Rd	B	11.0	B	14.7	B	13.1	B	11.1	B	14.9	B	13.2	B	11.4	C	15.8	B	14.0
SB - NY 14	A	7.8	A	7.9	A	8.0	A	7.8	A	7.9	A	8.0	A	7.9	A	8.0	A	8.1
4. NY 14/Proposed Driveway (U)																		
WB Left - Proposed Driveway													B	13.7	C	18.9	C	21.2
WB Right - Proposed Driveway	N/A		N/A		N/A		N/A		N/A		N/A		B	10.1	B	10.6	B	11.2
SB Left - NY 14													A	8.0	A	8.2	A	8.4

Notes:

1. A(2.8) = Level of Service (Delay in seconds per vehicle)
2. EB = Eastbound, WB = Westbound, NB = Northbound, SB = Southbound
3. (S) = Signalized; (U) = Unsignalized
4. N/A = Approach does not exist and/or was not analyzed during this condition
5. Green shaded cells indicate low delays, yellow shaded cells indicate moderate delays, red shaded cells indicate long delays.

NY 14/N Cloverleaf Dr
All approaches operate at LOS "B" or better during all peak hours under existing, background, and full build conditions. Between background and full build conditions, the eastbound approach decreases from a LOS "A" to an acceptable "B" during the AM peak hour; a change that occurs at 10.0 seconds of delay per vehicle. The projected minor impacts resulting from the proposed mixed use project can be sufficiently accommodated by the existing intersection and no mitigation is warranted nor recommended at this intersection.

NY 14/S Cloverleaf Dr
All approaches operate at LOS "C" or better during all peak hours under existing, background, and full build conditions. Between background and full build conditions, the eastbound approach decreases from a LOS "B" to an acceptable "C" during the PM peak hour; a change that occurs at 15.0 seconds of delay per vehicle. The projected minor impacts resulting from the proposed mixed use project can be sufficiently accommodated by the existing intersection and no mitigation is warranted nor recommended at this intersection.

NY 14/Snell Rd/Bellhurst Castle Driveway
All approaches operate at "B" or better during all peak hours under existing, and background conditions. Between background and full build conditions, the eastbound and westbound approaches decrease from a LOS "B" to an acceptable "C" during the PM peak hour and the eastbound approach changes from a LOS "B" to an acceptable "C" during the SAT peak hour; a change that occurs at 15.0 seconds of delay per vehicle. The projected minor impacts resulting from the proposed mixed use project can be sufficiently accommodated by the existing intersection and no mitigation is warranted nor recommended at this intersection.

NY 14/Proposed Driveway
All approaches at the site driveway intersection are projected to operate at LOS "C" or better under full build conditions during all peak hours. No improvements are warranted nor recommended at this location. The proposed driveway should consist of one entering and two exiting lanes.

IX. LEFT-TURN TREATMENT WARRANT INVESTIGATION

Volume guidelines for left-turn treatments along NY 14 at the proposed driveway intersection were investigated using the Transportation Board's NCHRP Report 279, Intersection Channelization Design Guide, 1985. Provisions for left-turn lane facilities should be established where traffic volumes are high enough and safety considerations are enough to warrant the additional lane. This investigation analyzes warrants during the weekday AM, PM, and weekend midday SAT peak hours for the NY 14/Proposed Driveway intersection under full development conditions.

The combination of projected southbound traffic volumes (shown in Figure 8 of the TIS for full development conditions) turning left from NY 14 onto the proposed driveway indicate the guidelines for left-turn treatment are met during both the weekday PM and weekend midday SAT peak hours.

However, given that the southbound approach at the proposed driveway operates at a LOS "A" during all peak hours under full build conditions, and that the volumes for both NYS 14 and

the site development are based upon projections with a high degree of variability versus actual data, no left-turn lane is recommended at this time. Instead, a post traffic study of actual conditions and volumes is recommended, six-months to a year after full development and operations, as requested by the City.

X. CONCLUSIONS & RECOMMENDATIONS

This study evaluates the potential traffic impacts resulting from the proposed 1115 Lochland Road Redevelopment. Based upon the analyses, the results indicate that the proposed development will not have significant adverse traffic impacts on the existing roadway network. The following sets forth conclusions and recommendations based upon the results of the analyses:

1. The proposed development is expected to generate approximately 83 entering/76 exiting vehicle trips during the weekday AM peak hour, 118 entering/79 exiting vehicle trips during the weekday PM peak hour, and 120 entering/98 exiting vehicle trips during the weekend SAT peak hour.

2. The existing crash investigation did not reveal inherent safety deficiencies related to the geometric design of the study area intersections.

3. The projected traffic impacts resulting from full development of the proposed project during all peak hours can be accommodated by the existing transportation network with no highway improvements.

4. All approaches at the site driveway intersection are projected to operate at LOS "C" or better under full build conditions during all peak hours.

5. The combination of projected southbound traffic volumes (shown in Figure 8 of the TIS for full development conditions) turning left from NY 14 onto the proposed driveway indicate guidelines for a left-turn treatment are satisfied during both the weekday PM and weekend midday SAT peak hours.

   However, given that the traffic volumes used in this evaluation are based upon estimates for 2021 Base volumes, and estimates for the restaurant/brewery that has significant variability associated with peak times of operation, no left-turn lane is recommended at this time.

   Instead, a post traffic study that includes actual volumes, operations and safety is recommended at the intersection, six-months to a year after opening, as requested by the City, to better assess the need for a left-turn lane based on empirical data. It is important to note too, that the southbound NYS 14 approach at the proposed driveway operates at a LOS "A" during all peak hours under full build conditions, without the need for any roadway mitigation.

6. For purposes of the environmental review of the proposed project pursuant to the State Environmental Quality Review Act (SEQRA), it is our firm's professional opinion that the

proposed project will not result in any potentially significant adverse traffic impacts to the study area intersections.

XI. FIGURES

Figures 1 through 8 are included on the following pages.

FIGURE 1: SITE LOCATION AND STUDY AREA

Key

- 1 Study Intersection
- 1 Proposed Intersection
- Study Area
- Site Location

PROPOSED 1115 LOCHLAND RD REDEVELOPMENT

CITY OF GENEVA, ONTARIO COUNTY, NEW YORK

N

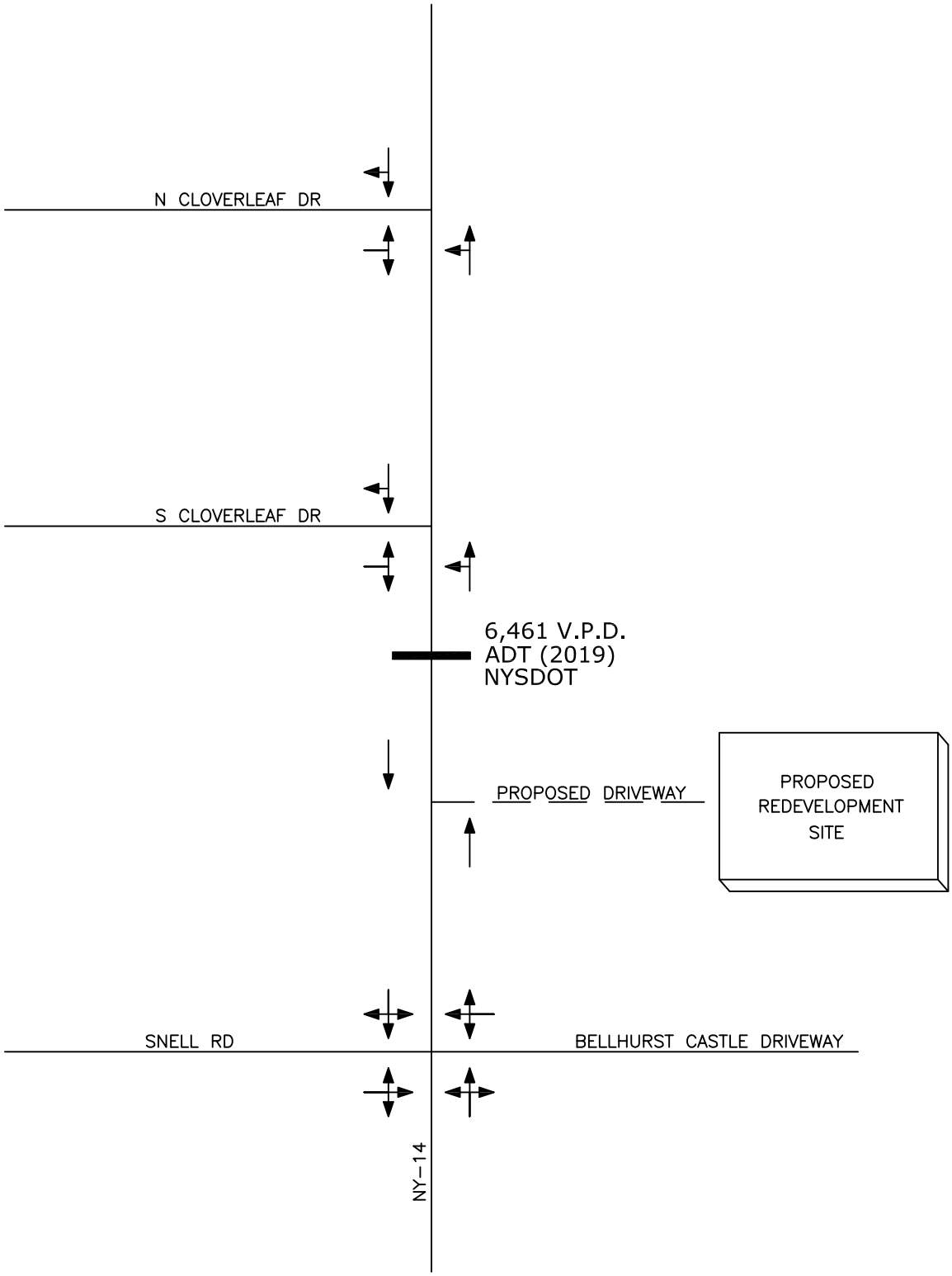
0 1000 2000 3000 4000

Feet

SRF ASSOCIATES
Transportation Planning / Engineering / Design

Project No: 41050

Note: All counts by New York State Dept of Transportation
V.P.D. = Vehicles Per Day



PROJECT NO: 41050

KEY

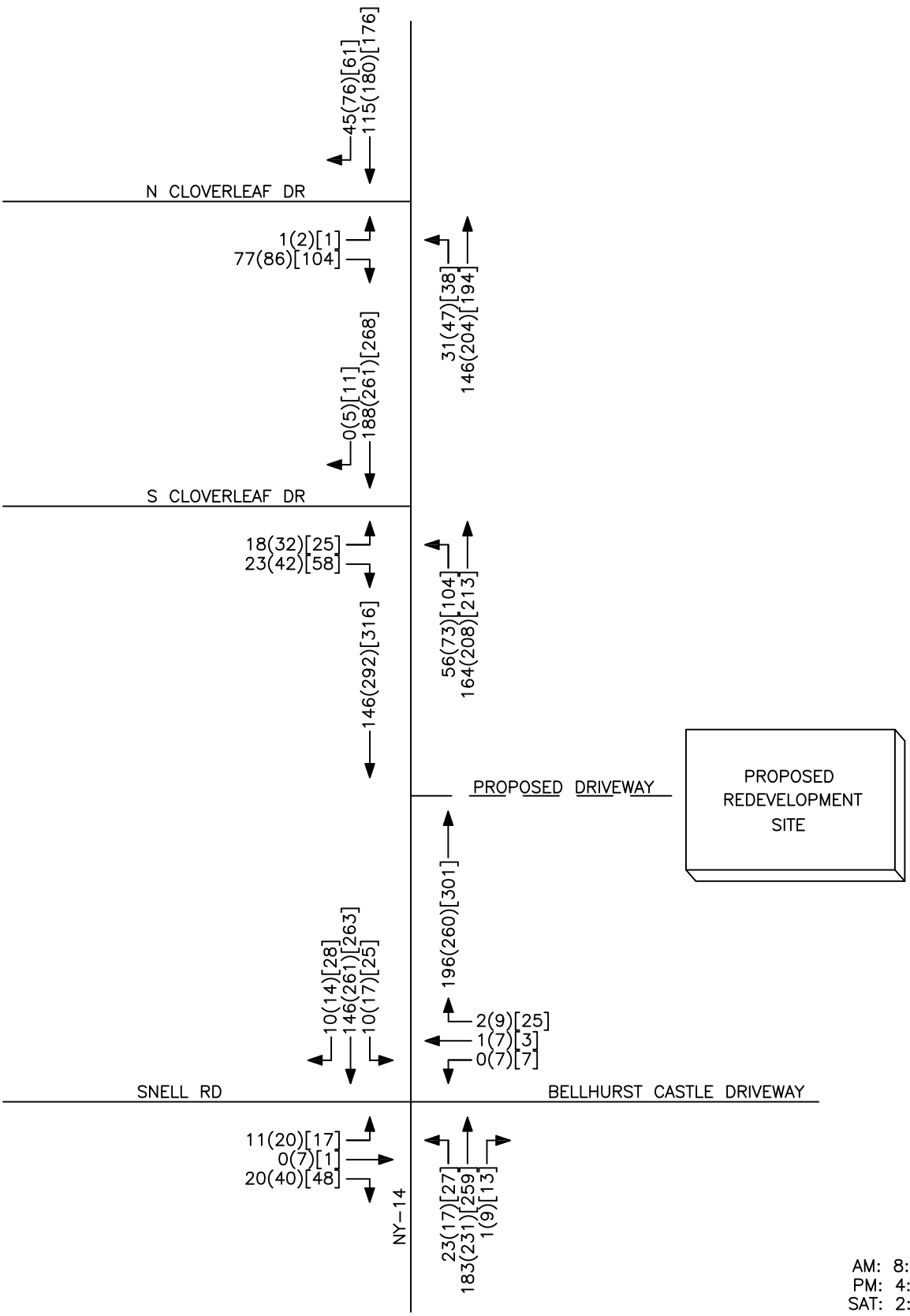
N
NOT TO SCALE

FIGURE 2

LANE GEOMETRY &
AVERAGE DAILY TRAFFIC

PROPOSED 1115 LOCHLAND RD
REDEVELOPMENT,
CITY OF GENEVA, NY

SRF ASSOCIATES
WWW.SRFA.NET
Transportation Engineering & Planning Consultants



PROJECT NO: 41050

KEY
00(00)[00] = AM(PM)[SAT]

N

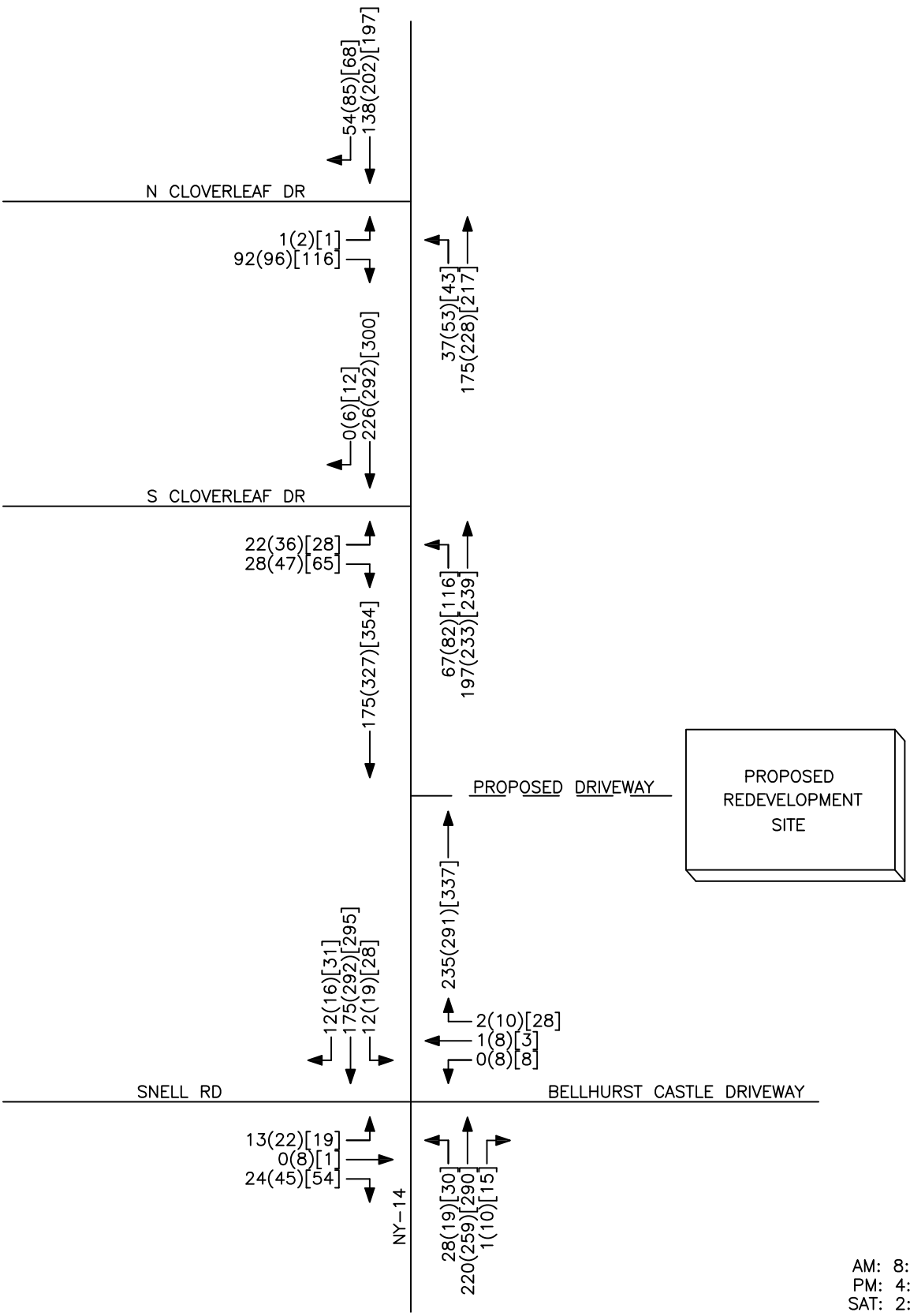
NOT TO SCALE

FIGURE 3A

PEAK HOUR VOLUMES
2021 EXISTING BASE CONDITIONS

PROPOSED 1115 LOCHLAND RD
DEVELOPMENT,
CITY OF GENEVA, NY

SRF ASSOCIATES
WWW.SRFA.NET
Transportation Engineering & Planning Consultants



PROJECT NO: 41050

KEY
00(00)[00] = AM(PM)[SAT]

N

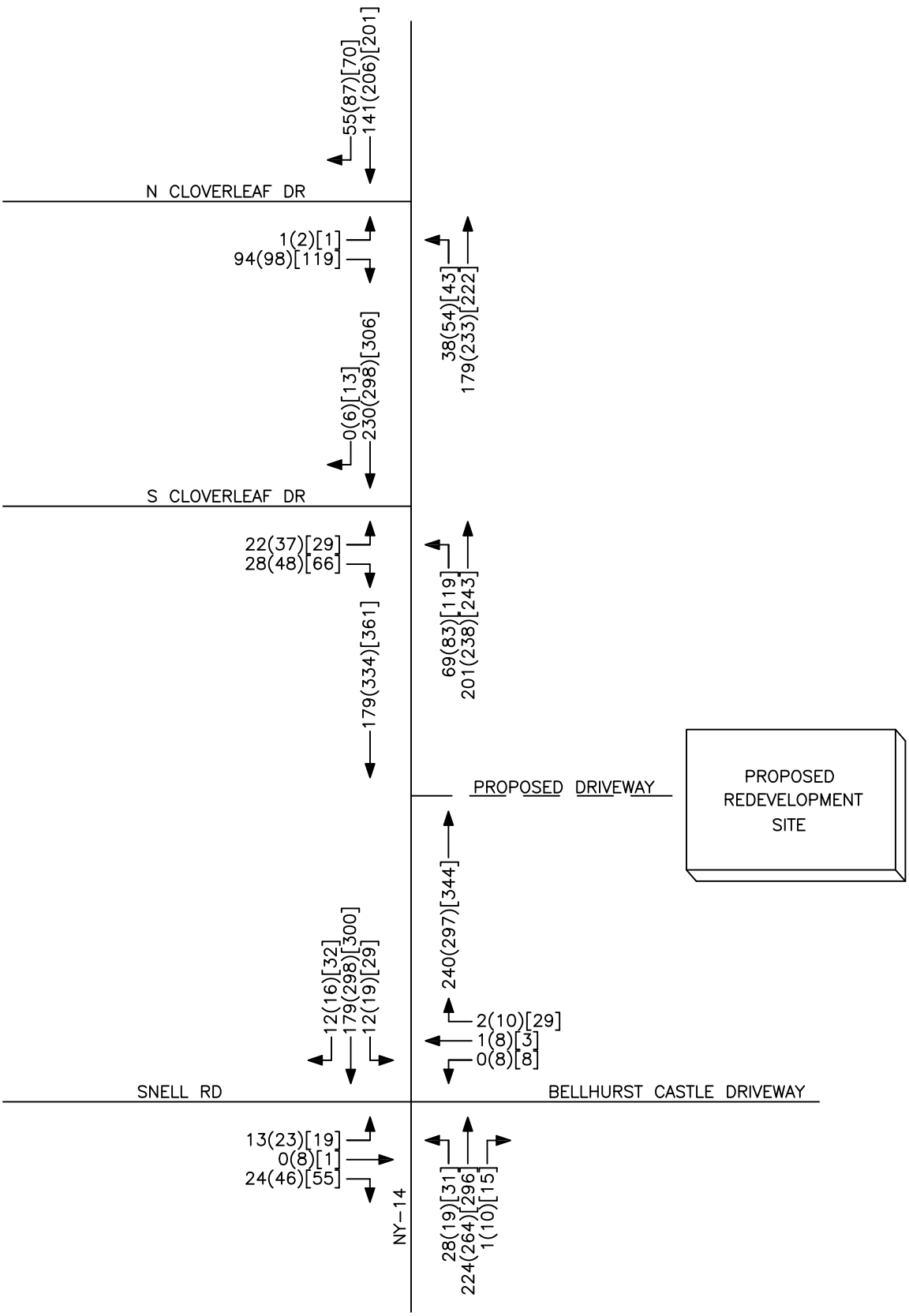
NOT TO SCALE

FIGURE 3B

PEAK HOUR VOLUMES
2021 ADJUSTED BASE CONDITIONS

PROPOSED 1115 LOCHLAND RD DEVELOPMENT,
CITY OF GENEVA, NY

SRF ASSOCIATES
WWW.SRFA.NET
Transportation Engineering & Planning Consultants



PROJECT NO: 41050

KEY
00(00)[00] = AM(PM)[SAT]

N

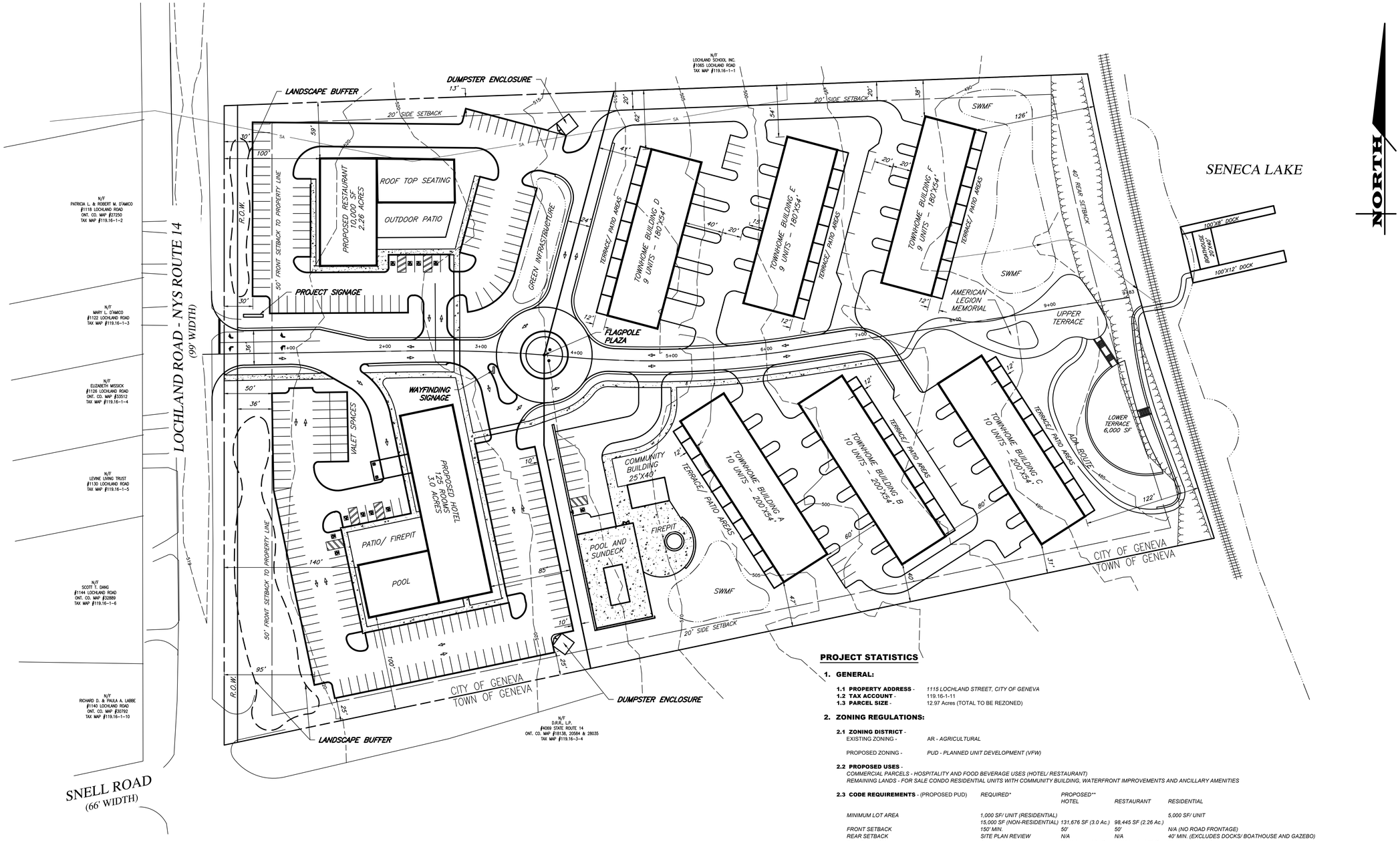
NOT TO SCALE

FIGURE 4

PEAK HOUR VOLUMES
BACKGROUND CONDITIONS

PROPOSED 1115 LOCHLAND RD
DEVELOPMENT,
CITY OF GENEVA, NY

SRF ASSOCIATES
WWW.SRFA.NET
Transportation Engineering & Planning Consultants



PROJECT STATISTICS

1. GENERAL:

1.1 PROPERTY ADDRESS - *1115 LOCHLAND STREET, CITY OF GENEVA*
1.2 TAX ACCOUNT - 119.16-1-11
1.3 PARCEL SIZE - 12.97 Acres (TOTAL TO BE REZONED)

2. ZONING REGULATIONS:

2.1 ZONING DISTRICT -
EXISTING ZONING - AR - *AGRICULTURAL*

PROPOSED ZONING - *PUD - PLANNED UNIT DEVELOPMENT (VFW)*

2.2 PROPOSED USES -
COMMERCIAL PARCELS - HOSPITALITY AND FOOD BEVERAGE USES (HOTEL/ RESTAURANT)
REMAINING LANDS - FOR SALE CONDO RESIDENTIAL UNITS WITH COMMUNITY BUILDING, WATERFRONT IMPROVEMENTS AND ANCILLARY AMENITIES

2.3 CODE REQUIREMENTS - (PROPOSED PUD)

	*REQUIRED**	*PROPOSED**		
		HOTEL	*RESTAURANT*	*RESIDENTIAL*
MINIMUM LOT AREA	*1,000 SF/ UNIT (RESIDENTIAL)* *15,000 SF (NON-RESIDENTIAL)*	*131,676 SF (3.0 Ac.)*	*98,445 SF (2.26 Ac.)*	*5,000 SF/ UNIT*
FRONT SETBACK	*150' MIN.*	*50'*	*50'*	*N/A (NO ROAD FRONTAGE)*
REAR SETBACK	*SITE PLAN REVIEW*	*N/A*	*N/A*	*40' MIN. (EXCLUDES DOCKS/ BOATHOUSE AND GAZEBO)*
SIDE SETBACK	*SITE PLAN REVIEW*	*10' MIN. PARKING* *20' MIN. BUILDING*	*10' MIN. PARKING* *20' MIN. BUILDING*	*10' MIN. PARKING* *20' MIN. BUILDING*
LOT COVERAGE	*SITE PLAN REVIEW*	*70% MAX.*	*70% MAX.*	*70% MAX.*
OPEN SPACE (MIN.)	*30%*	+	+	+
# OF UNITS PER BUILDING	*12*	*N/A*	*N/A*	*10 MAX.*
BUILDING HEIGHT	*40' (3 STORIES)*	*60' (5 STORIES)*	*40'*	*40' (3 STORIES)*
*MIN. PARKING SPACES****	*1/ UNIT (RESIDENTIAL)* *4/1000 SF (RESTAURANT)* *1/ ROOM + .5/ EMPL. (HOTEL)*	*130-150 SPACES*	*80-90 SPACES*	*2.5-3.0/ UNIT (1 GARAGE SPACE/ UNIT MIN.)*

* UNDERLYING ZONING 'REQUIRED' ITEMS ARE REFERENCED TO THE CITY OF GENEVA DRAFT 2020 ZONING CODE UPDATE FOR THE PARCEL - (MU-H) MIXED USE HOSPITALITY AND APPLIES TO EXTERIOR PROPERTY LINES ONLY (NOT INTERIOR)
** PROPOSED PUD REGULATIONS
***NO PARKING SPACES ALLOWED IN FRONT YARD - PROPOSED TO BE ALLOWED IN PUD
+ THE PROPOSED SITE PLAN IS PART OF THE PUD REZONING AND THEREFORE ALL SPACE NOT PROPOSED FOR DEVELOPMENT IS USEABLE AS OPEN SPACE

3. SITE:

1.1 WETLANDS - NO WETLANDS PRESENT ON THE SITE.

1.2 FLOODPLAIN - FLOODPLAIN ASSOCIATED WITH SENECA LAKE - ZONE A3 ELEVATION 449 NGVD 1929, FLOOD PANEL 360599002B DATED APRIL 15, 1982

1.3 ROADWAYS - ALL ROADWAYS WITHIN THE PROJECT WILL BE PRIVATE AND MAINTAINED BY THE OWNERS OF THE PROPERTIES OR A SUBSIDIARY.

1.4 UTILITIES:
1. WATER MAINS AND HYDRANTS ARE PROPOSED TO BE OWNED AND MAINTAINED BY THE CITY OF GENEVA. THE PROPERTY IS CURRENTLY SERVICED BY THE WATER DEPARTMENT AND IS WITHIN AN EXISTING DISTRICT.
2. SANITARY SEWER IS PROPOSED TO BE OWNED AND MAINTAINED BY THE CITY OF GENEVA. THE PROPERTY IS CURRENTLY SERVICED BY THE WATER DEPARTMENT AND IS WITHIN AN EXISTING DISTRICT.
3. STORM SEWER WILL BE PRIVATE AND MAINTAINED BY THE OWNER
4. GAS AND ELECTRIC WILL BE OWNED AND MAINTAINED BY THE UTILITY OWNER

MARATHON ENGINEERING
ROCHESTER LOCATION
39 CASCADE DRIVE
ROCHESTER, NY 14614
585-458-7770
ITHACA LOCATION
840 HANSHAW RD, STE 12
ITHACA, NY 14850
607-241-2917
www.marathoneng.com

PLANNED UNIT DEVELOPMENT REZONING PLAN for 1115 LOCHLAND ROAD MIXED USE DEVELOPMENT

CITY OF GENEVA — ONTARIO COUNTY — STATE OF NEW YORK

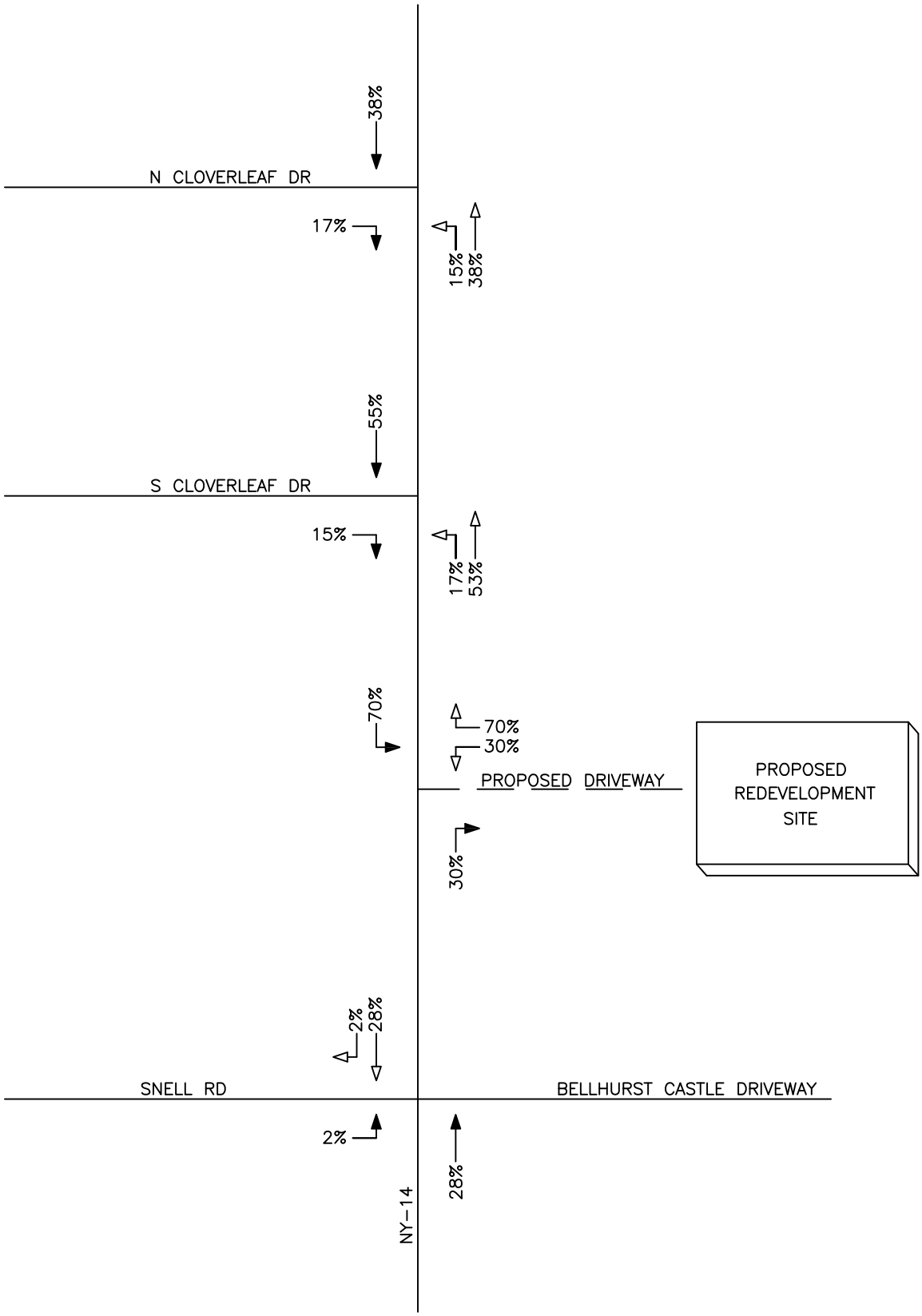
JOB NO:	1250-21
SCALE:	1"=50'
DRAWN:	MPT
DESIGNED:	MPT
DATE:	04/28/21

REVISIONS

DATE	BY	REVISION

DRAWING TITLE:
OVERALL SITE PLAN

1 of 1 SHEET No:	C1.0
1250-21 JOB No:	DRAWING No:



PROJECT NO: 41050

KEY

N

NOT TO SCALE

→ = ENTERING TRIPS

→ = EXITING TRIPS

FIGURE 6

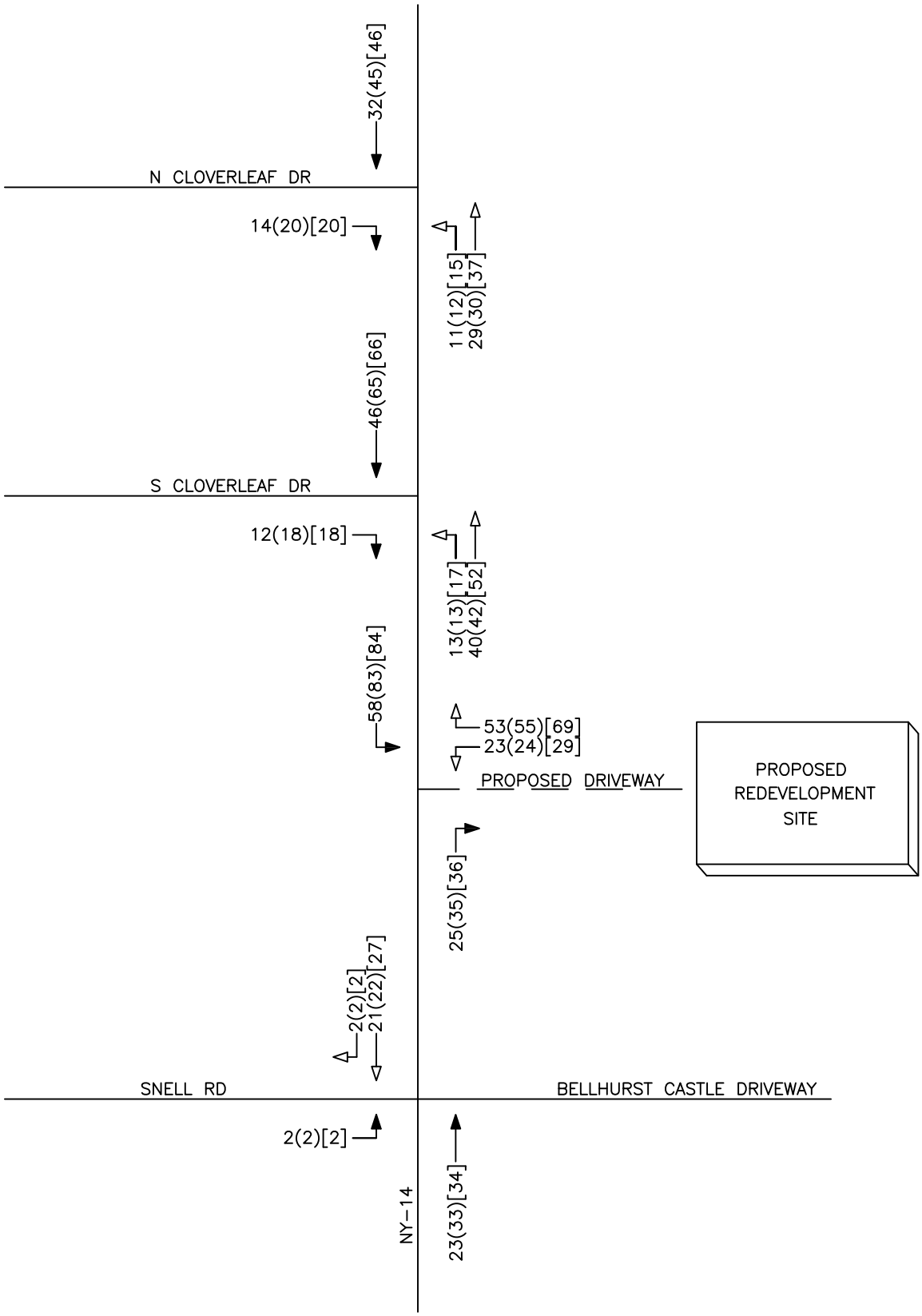
TRIP DISTRIBUTION

PROPOSED 1115 LOCHLAND RD
DEVELOPMENT,
CITY OF GENEVA, NY

SRF ASSOCIATES

WWW.SRFA.NET

Transportation Engineering & Planning Consultants



PROJECT NO: 41050

KEY

NOT TO SCALE

N

00(00)[00] = AM(PM)[SAT]

→ = ENTERING TRIPS

→ = EXITING TRIPS

FIGURE 7

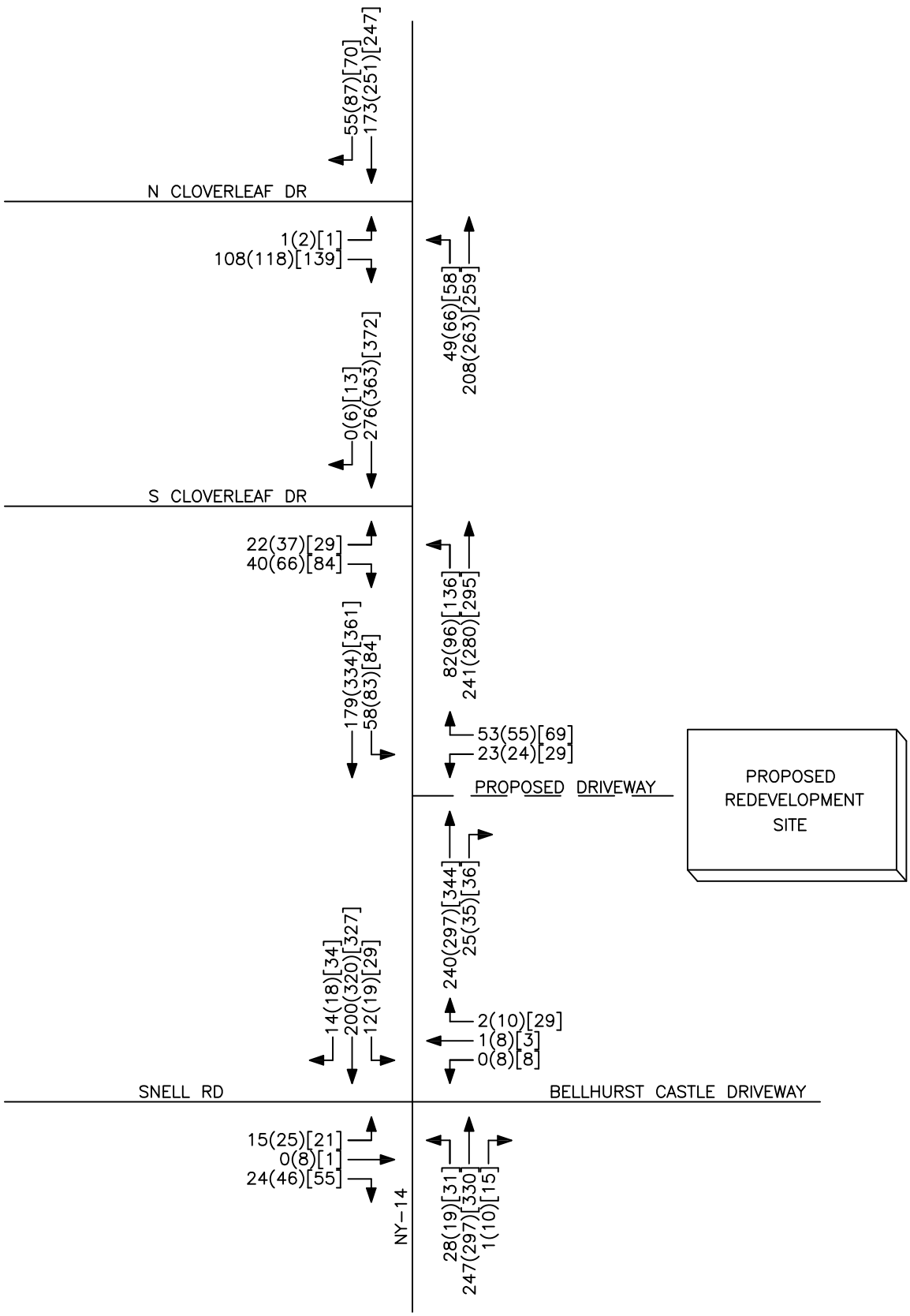
SITE GENERATED TRIPS

PROPOSED 1115 LOCHLAND RD
DEVELOPMENT,
CITY OF GENEVA, NY

SRF ASSOCIATES

WWW.SRFA.NET

Transportation Engineering & Planning Consultants



PROJECT NO: 41050

KEY
00(00)[00] = AM(PM)[SAT]

N

NOT TO SCALE

FIGURE 8

PEAK HOUR VOLUMES
FULL DEVELOPMENT CONDITIONS

PROPOSED 1115 LOCHLAND RD
DEVELOPMENT,
CITY OF GENEVA, NY

SRF ASSOCIATES
WWW.SRFA.NET
Transportation Engineering & Planning Consultants

APPENDICES

A1

Collected Traffic Volume Data

SRF ASSOCIATES, D.P.C.
3495 Winton Place, Building E, Suite 110
Rochester, New York 14623

File Name : S Main St-N Cloverleaf Dr AM
Site Code : 00041050
Start Date : 5/25/2021
Page No : 1

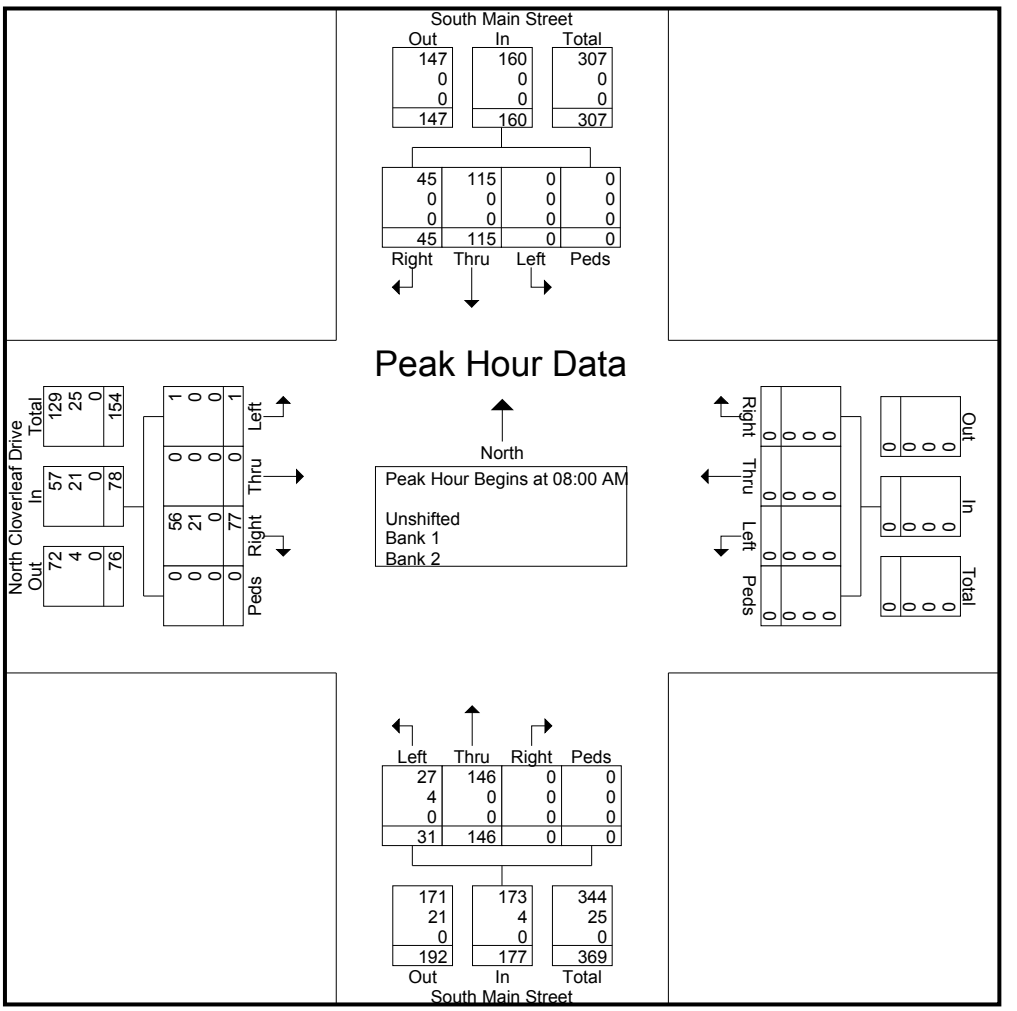
Groups Printed- Unshifted - Bank 1 - Bank 2

	South Main Street From North				From East				South Main Street From South				North Cloverleaf Drive From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
08:00 AM	12	29	0	0	0	0	0	0	0	36	7	0	17	0	0	0	101
08:15 AM	13	27	0	0	0	0	0	0	0	30	6	0	18	0	0	0	94
08:30 AM	13	23	0	0	0	0	0	0	0	40	7	0	23	0	0	0	106
08:45 AM	7	36	0	0	0	0	0	0	0	40	11	0	19	0	1	0	114
Total	45	115	0	0	0	0	0	0	0	146	31	0	77	0	1	0	415
Grand Total	45	115	0	0	0	0	0	0	0	146	31	0	77	0	1	0	415
Apprch %	28.1	71.9	0	0	0	0	0	0	0	82.5	17.5	0	98.7	0	1.3	0	
Total %	10.8	27.7	0	0	0	0	0	0	0	35.2	7.5	0	18.6	0	0.2	0	
Unshifted	45	115	0	0	0	0	0	0	0	146	27	0	56	0	1	0	390
% Unshifted	100	100	0	0	0	0	0	0	0	100	87.1	0	72.7	0	100	0	94
Bank 1	0	0	0	0	0	0	0	0	0	0	4	0	21	0	0	0	25
% Bank 1	0	0	0	0	0	0	0	0	0	0	12.9	0	27.3	0	0	0	6
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SRF ASSOCIATES, D.P.C.
3495 Winton Place, Building E, Suite 110
Rochester, New York 14623

File Name : S Main St-N Cloverleaf Dr AM
Site Code : 00041050
Start Date : 5/25/2021
Page No : 2

	South Main Street From North					From East					South Main Street From South					North Cloverleaf Drive 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 08:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	12	29	0	0	41	0	0	0	0	0	0	36	7	0	43	17	0	0	0	17	101
08:15 AM	**13**																				
08:30 AM	**13**	**23**	**0**	**0**	**36**	**0**	**0**	**0**	**0**	**0**	**0**	**40**	7	0	47	**23**	**0**	**0**	**0**	**23**	106
08:45 AM	7	**36**	0	0	**43**	0	0	0	0	0	0	40	**11**		**51**	19	0	**1**			**114**
Total Volume	45	115	0	0	160	0	0	0	0	0	0	146	31	0	177	77	0	1	0	78	415
% App. Total	28.1	71.9	0	0		0	0	0	0		0	82.5	17.5	0		98.7	0	1.3	0		
PHF	.865	.799	.000	.000	.930	.000	.000	.000	.000	.000	.000	.913	.705	.000	.868	.837	.000	.250	.000	.848	.910
Unshifted	45	115	0	0	160	0	0	0	0	0	0	146	27	0	173	56	0	1	0	57	390
% Unshifted													87.1	0	97.7	72.7	0	100	0	73.1	94.0
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	21	0	0	0	21	25
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	12.9	0	2.3	27.3	0	0	0	26.9	6.0
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



SRF ASSOCIATES, D.P.C.
3495 Winton Place, Building E, Suite 110
Rochester, New York 14623

File Name : S Main St-N Cloverleaf Dr PM
Site Code : 00041050
Start Date : 5/25/2021
Page No : 1

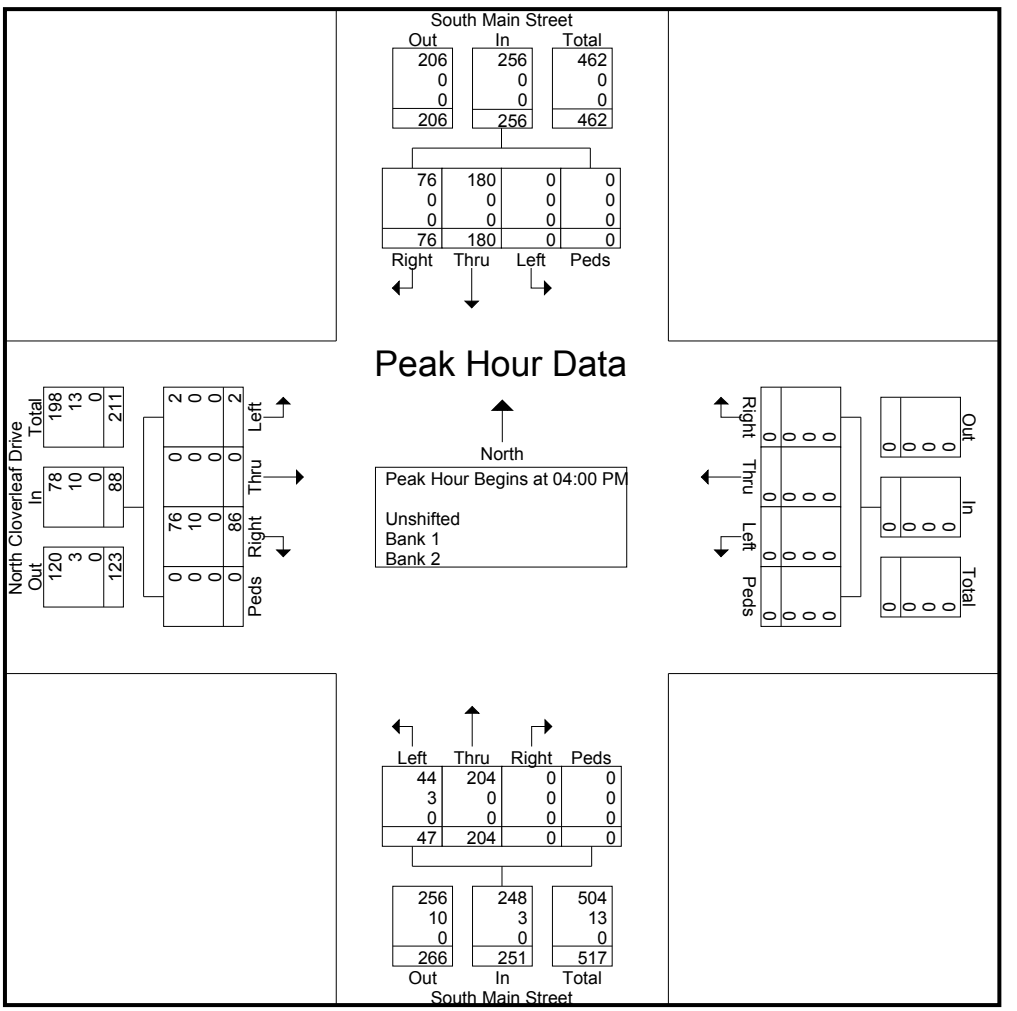
Groups Printed- Unshifted - Bank 1 - Bank 2

	South Main Street From North				From East				South Main Street From South				North Cloverleaf Drive From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	18	46	0	0	0	0	0	0	0	41	14	0	22	0	1	0	142
04:15 PM	20	37	0	0	0	0	0	0	0	48	11	0	16	0	0	0	132
04:30 PM	21	45	0	0	0	0	0	0	0	50	10	0	28	0	0	0	154
04:45 PM	17	52	0	0	0	0	0	0	0	65	12	0	20	0	1	0	167
Total	76	180	0	0	0	0	0	0	0	204	47	0	86	0	2	0	595
Grand Total	76	180	0	0	0	0	0	0	0	204	47	0	86	0	2	0	595
Apprch %	29.7	70.3	0	0	0	0	0	0	0	81.3	18.7	0	97.7	0	2.3	0	
Total %	12.8	30.3	0	0	0	0	0	0	0	34.3	7.9	0	14.5	0	0.3	0	
Unshifted	76	180	0	0	0	0	0	0	0	204	44	0	76	0	2	0	582
% Unshifted	100	100	0	0	0	0	0	0	0	100	93.6	0	88.4	0	100	0	97.8
Bank 1	0	0	0	0	0	0	0	0	0	0	3	0	10	0	0	0	13
% Bank 1	0	0	0	0	0	0	0	0	0	0	6.4	0	11.6	0	0	0	2.2
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SRF ASSOCIATES, D.P.C.
3495 Winton Place, Building E, Suite 110
Rochester, New York 14623

File Name : S Main St-N Cloverleaf Dr PM
Site Code : 00041050
Start Date : 5/25/2021
Page No : 2

	South Main Street From North					From East					South Main Street From South					North Cloverleaf Drive 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 04:00 PM to 04:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	18	46	0	0	64	0	0	0	0	0	0	41	**14**					**1**			
04:15 PM	**20**	**37**	**0**	**0**	**57**	**0**	**0**	**0**	**0**	**0**	**0**	**48**	**11**	**0**	**59**	**16**	**0**	**0**	**0**	**16**	**132**
04:30 PM	**21**	**45**	**0**	**0**	**66**	**0**	**0**	**0**	**0**	**0**	**0**	**50**	**10**	**0**	**60**	**28**	**0**	**0**	**0**	**28**	154
04:45 PM	17	**52**	0	0	**69**	0	0	0	0	0	0	**65**	12	0	**77**	20	0	1	0	21	**167**
Total Volume	76	180	0	0	256	0	0	0	0	0	0	204	47	0	251	86	0	2	0	88	595
% App. Total	29.7	70.3	0	0		0	0	0	0		0	81.3	18.7	0		97.7	0	2.3	0		
PHF	.905	.865	.000	.000	.928	.000	.000	.000	.000	.000	.000	.785	.839	.000	.815	.768	.000	.500	.000	.786	.891
Unshifted	76	180	0	0	256	0	0	0	0	0	0	204	44	0	248	76	0	2	0	78	582
% Unshifted													93.6	0	98.8	88.4	0	100	0	88.6	97.8
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	10	0	0	0	10	13
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	6.4	0	1.2	11.6	0	0	0	11.4	2.2
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



SRF ASSOCIATES, D.P.C.
3495 Winton Place, Building E, Suite 110
Rochester, New York 14623

File Name : NY-14-N Cloverleaf Dr
Site Code : 22222222
Start Date : 5/22/2021
Page No : 1

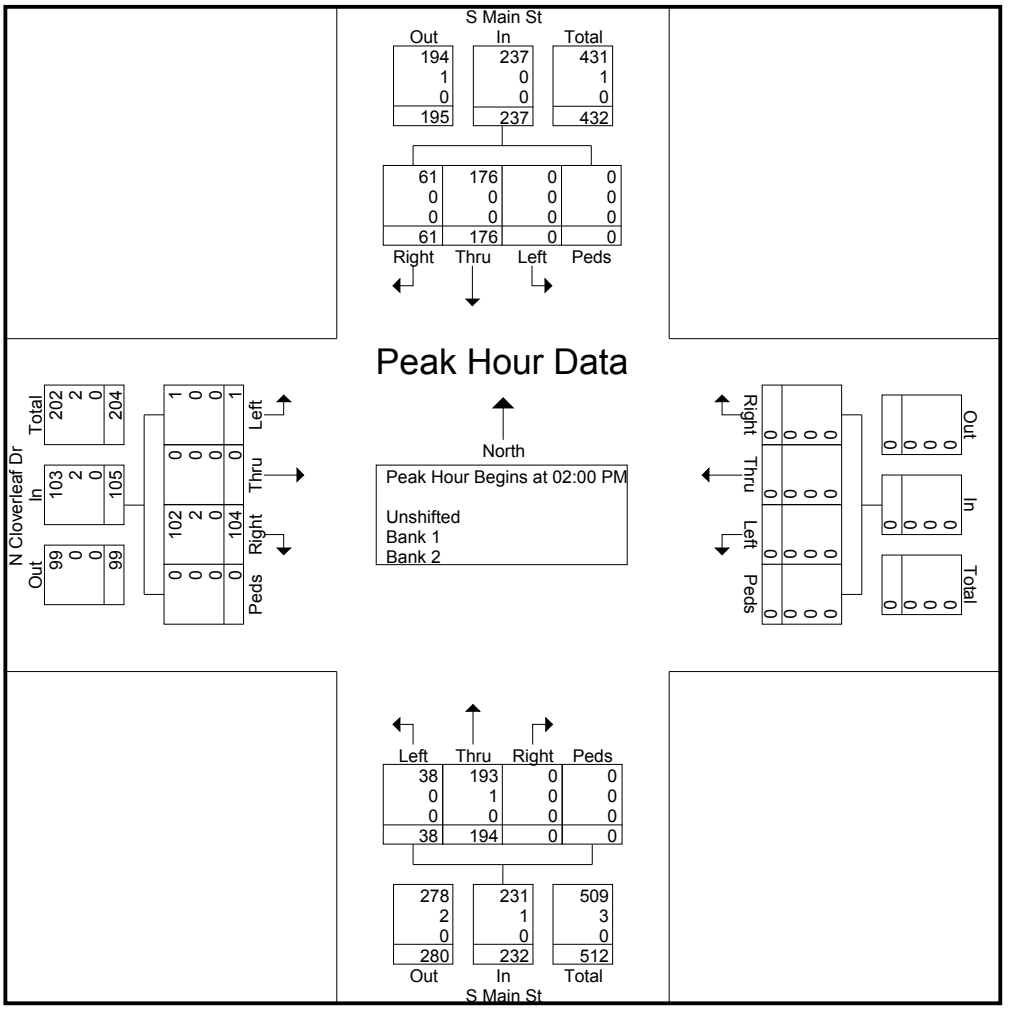
Groups Printed- Unshifted - Bank 1 - Bank 2

	S Main St From North				From East				S Main St From South				N Cloverleaf Dr From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
02:00 PM	14	42	0	0	0	0	0	0	0	48	8	0	21	0	0	0	133
02:15 PM	13	37	0	0	0	0	0	0	0	37	9	0	27	0	1	0	124
02:30 PM	11	53	0	0	0	0	0	0	0	50	8	0	21	0	0	0	143
02:45 PM	23	44	0	0	0	0	0	0	0	59	13	0	35	0	0	0	174
Total	61	176	0	0	0	0	0	0	0	194	38	0	104	0	1	0	574
Grand Total	61	176	0	0	0	0	0	0	0	194	38	0	104	0	1	0	574
Apprch %	25.7	74.3	0	0	0	0	0	0	0	83.6	16.4	0	99	0	1	0	
Total %	10.6	30.7	0	0	0	0	0	0	0	33.8	6.6	0	18.1	0	0.2	0	
Unshifted	61	176	0	0	0	0	0	0	0	193	38	0	102	0	1	0	571
% Unshifted	100	100	0	0	0	0	0	0	0	99.5	100	0	98.1	0	100	0	99.5
Bank 1	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0	0	3
% Bank 1	0	0	0	0	0	0	0	0	0	0.5	0	0	1.9	0	0	0	0.5
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SRF ASSOCIATES, D.P.C.
3495 Winton Place, Building E, Suite 110
Rochester, New York 14623

File Name : NY-14-N Cloverleaf Dr
Site Code : 22222222
Start Date : 5/22/2021
Page No : 2

	S Main St From North					From East					S Main St From South					N Cloverleaf Dr 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 02:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 02:00 PM																					
02:00 PM	14	42	0	0	56	0	0	0	0	0	0	48	8	0	56	21	0	0	0	21	133
02:15 PM	13	37	0	0	50	0	0	0	0	0	0	37	9	0	46	27	0	**1**	0	28	124
02:30 PM	11	**53**	0	0	64	0	0	0	0	0	0	50	8	0	58	21	0	0	0	21	143
02:45 PM	**23**	44	0	0	**67**	0	0	0	0	0	0	**59**	**13**	0	**72**	**35**	0	0	0	**35**	**174**
Total Volume	61	176	0	0	237	0	0	0	0	0	0	194	38	0	232	104	0	1	0	105	574
% App. Total	25.7	74.3	0	0		0	0	0	0		0	83.6	16.4	0		99	0	1	0		
PHF	.663	.830	.000	.000	.884	.000	.000	.000	.000	.000	.000	.822	.731	.000	.806	.743	.000	.250	.000	.750	.825
Unshifted	61	176	0	0	237	0	0	0	0	0	0	193	38	0	231	102	0	1	0	103	571
% Unshifted												99.5	100	0	99.6	98.1	0	100	0	98.1	99.5
Bank 1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2	0	0	0	2	3
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0.5	0	0	0.4	1.9	0	0	0	1.9	0.5
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



SRF ASSOCIATES, D.P.C.
3495 Winton Place, Building E, Suite 110
Rochester, New York 14623

File Name : S Main St-S Cloverleaf Dr Weekday
Site Code : 11111111
Start Date : 5/25/2021
Page No : 1

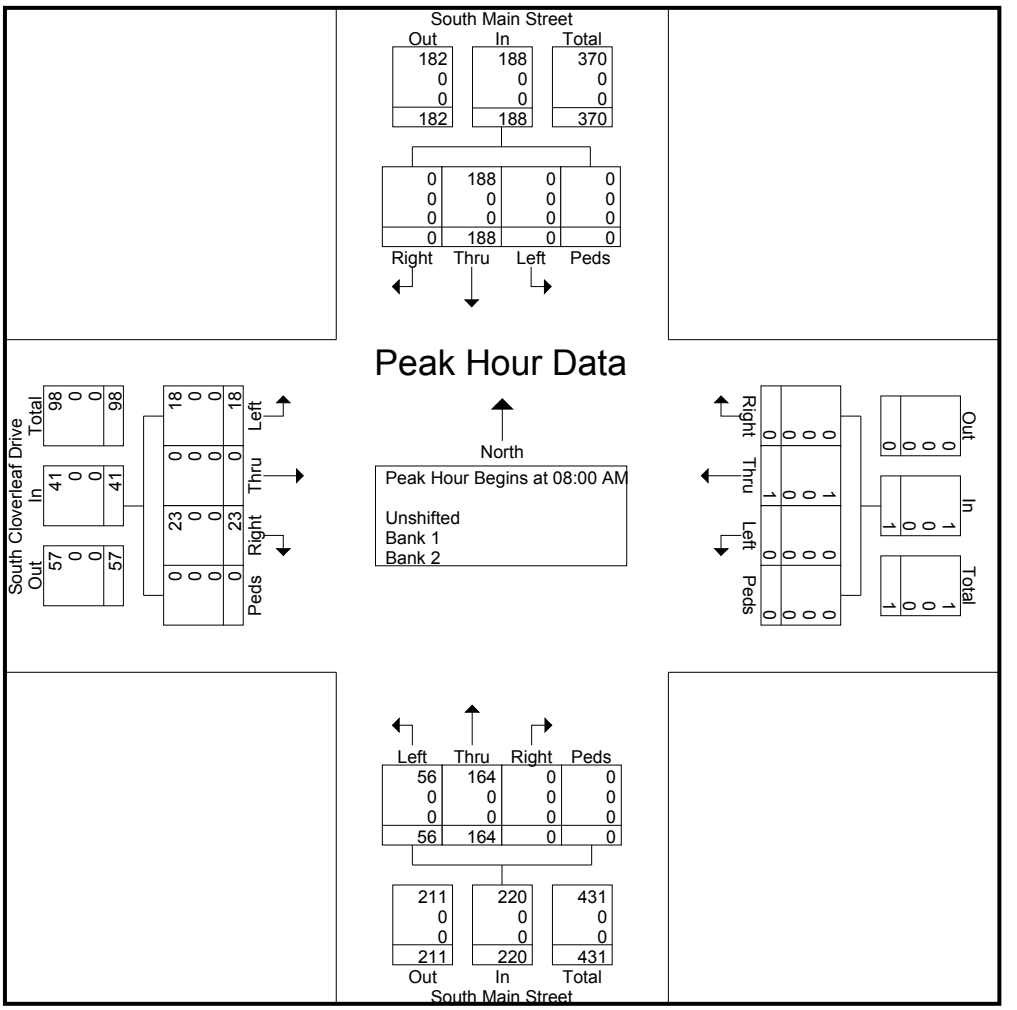
Groups Printed- Unshifted - Bank 1 - Bank 2

	South Main Street From North				From East				South Main Street From South				South Cloverleaf Drive From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
08:00 AM	0	48	0	0	0	1	0	0	0	45	19	0	6	0	5	0	124
08:15 AM	0	44	0	0	0	0	0	0	0	29	16	0	4	0	3	0	96
08:30 AM	0	45	0	0	0	0	0	0	0	43	9	0	8	0	5	0	110
08:45 AM	0	51	0	0	0	0	0	0	0	47	12	0	5	0	5	0	120
Total	0	188	0	0	0	1	0	0	0	164	56	0	23	0	18	0	450
Grand Total	0	188	0	0	0	1	0	0	0	164	56	0	23	0	18	0	450
Apprch %	0	100	0	0	0	100	0	0	0	74.5	25.5	0	56.1	0	43.9	0	
Total %	0	41.8	0	0	0	0.2	0	0	0	36.4	12.4	0	5.1	0	4	0	
Unshifted	0	188	0	0	0	1	0	0	0	164	56	0	23	0	18	0	450
% Unshifted	0	100	0	0	0	100	0	0	0	100	100	0	100	0	100	0	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SRF ASSOCIATES, D.P.C.
3495 Winton Place, Building E, Suite 110
Rochester, New York 14623

File Name : S Main St-S Cloverleaf Dr Weekday
Site Code : 11111111
Start Date : 5/25/2021
Page No : 2

	South Main Street From North					From East					South Main Street From South					South Cloverleaf Drive 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 08:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	48	0	0	48	0	**1**	0	0	**1**	0	45	**19**		**64**	6	0	**5**			**124**
08:15 AM	0	44	0	0	44	0	0	0	0	0	0	29	16	0	45	4	0	3	0	7	96
08:30 AM	0	45	0	0	45	0	0	0	0	0	0	43	9	0	52	**8**				**13**	110
08:45 AM	0	**51**	0	0	**51**	0	0	0	0	0	0	**47**	12	0	59	5	0	5	0	10	120
Total Volume	0	188	0	0	188	0	1	0	0	1	0	164	56	0	220	23	0	18	0	41	450
% App. Total	0	100	0	0		0	100	0	0		0	74.5	25.5	0		56.1	0	43.9	0		
PHF	.000	.922	.000	.000	.922	.000	.250	.000	.000	.250	.000	.872	.737	.000	.859	.719	.000	.900	.000	.788	.907
Unshifted	0	188	0	0	188	0	1	0	0	1	0	164	56	0	220	23	0	18	0	41	450
% Unshifted																					
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



SRF ASSOCIATES, D.P.C.
3495 Winton Place, Building E, Suite 110
Rochester, New York 14623

File Name : S Main St-S Cloverleaf Dr Weekday
Site Code : 11111111
Start Date : 5/25/2021
Page No : 1

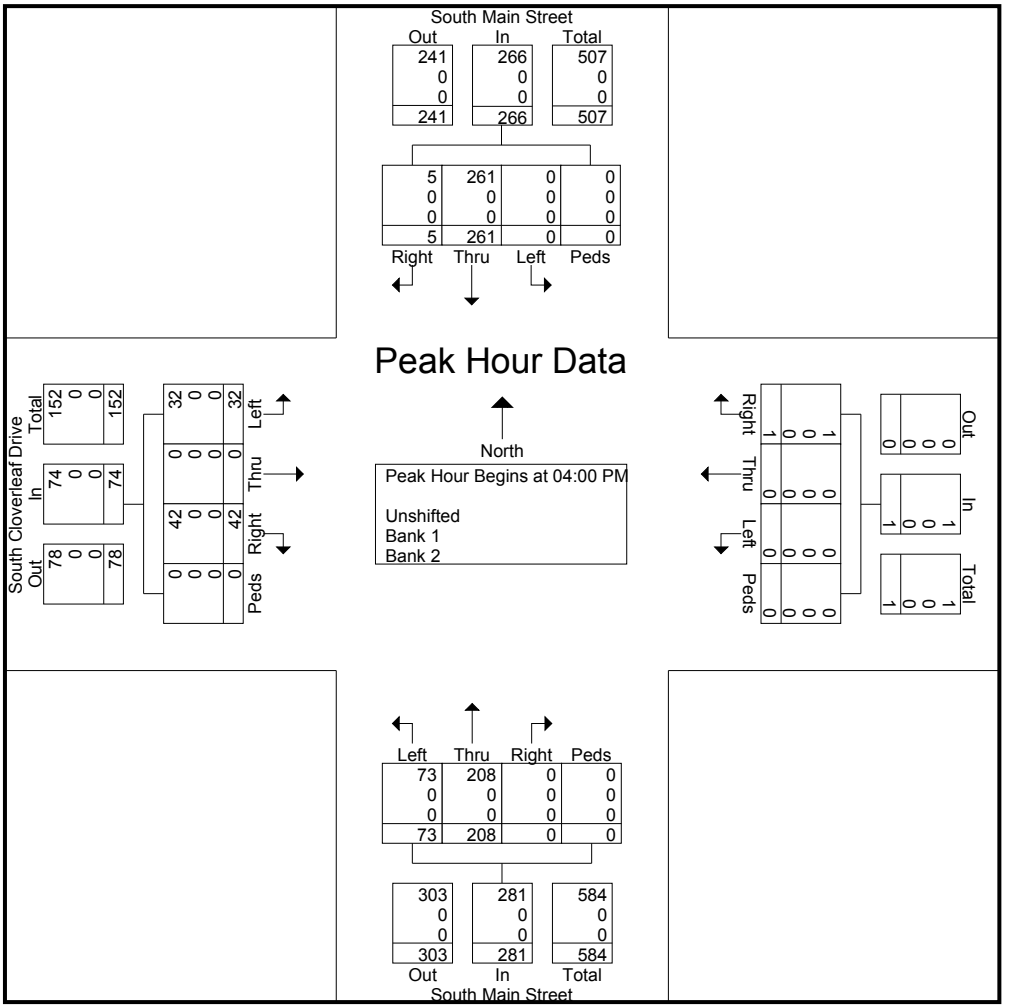
Groups Printed- Unshifted - Bank 1 - Bank 2

	South Main Street From North				From East				South Main Street From South				South Cloverleaf Drive From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	2	66	0	0	1	0	0	0	0	43	19	0	7	0	7	0	145
04:15 PM	1	53	0	0	0	0	0	0	0	53	18	0	18	0	6	0	149
04:30 PM	1	71	0	0	0	0	0	0	0	50	17	0	13	0	11	0	163
04:45 PM	1	71	0	0	0	0	0	0	0	62	19	0	4	0	8	0	165
Total	5	261	0	0	1	0	0	0	0	208	73	0	42	0	32	0	622
Grand Total	5	261	0	0	1	0	0	0	0	208	73	0	42	0	32	0	622
Apprch %	1.9	98.1	0	0	100	0	0	0	0	74	26	0	56.8	0	43.2	0	
Total %	0.8	42	0	0	0.2	0	0	0	0	33.4	11.7	0	6.8	0	5.1	0	
Unshifted	5	261	0	0	1	0	0	0	0	208	73	0	42	0	32	0	622
% Unshifted	100	100	0	0	100	0	0	0	0	100	100	0	100	0	100	0	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SRF ASSOCIATES, D.P.C.
3495 Winton Place, Building E, Suite 110
Rochester, New York 14623

File Name : S Main St-S Cloverleaf Dr Weekday
Site Code : 11111111
Start Date : 5/25/2021
Page No : 2

	South Main Street From North					From East					South Main Street From South					South Cloverleaf Drive 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 04:00 PM to 04:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	**2**					**1**				**1**	0	43	**19**								
04:15 PM	**1**	**53**	**0**	**0**	**54**	**0**	**0**	**0**	**0**	**0**	**0**	**53**	**18**	**0**	**71**	**18**	**0**	**6**	**0**	**24**	149
04:30 PM	1	**71**	0	0	**72**	0	0	0	0	0	0	50	17	0	67	13	0	**11**			
04:45 PM	**1**	**71**	**0**	**0**	**72**	**0**	**0**	**0**	**0**	**0**	**0**	**62**	19	0	**81**	4	0	8	0	12	**165**
Total Volume	5	261	0	0	266	1	0	0	0	1	0	208	73	0	281	42	0	32	0	74	622
% App. Total	1.9	98.1	0	0		100	0	0	0		0	74	26	0		56.8	0	43.2	0		
PHF	.625	.919	.000	.000	.924	.250	.000	.000	.000	.250	.000	.839	.961	.000	.867	.583	.000	.727	.000	.771	.942
Unshifted	5	261	0	0	266	1	0	0	0	1	0	208	73	0	281	42	0	32	0	74	622
% Unshifted																					
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



SRF ASSOCIATES, D.P.C.
3495 Winton Place, Building E, Suite 110
Rochester, New York 14623

File Name : S Main St-S Cloverleaf Dr Saturday
Site Code : 11111111
Start Date : 5/22/2021
Page No : 1

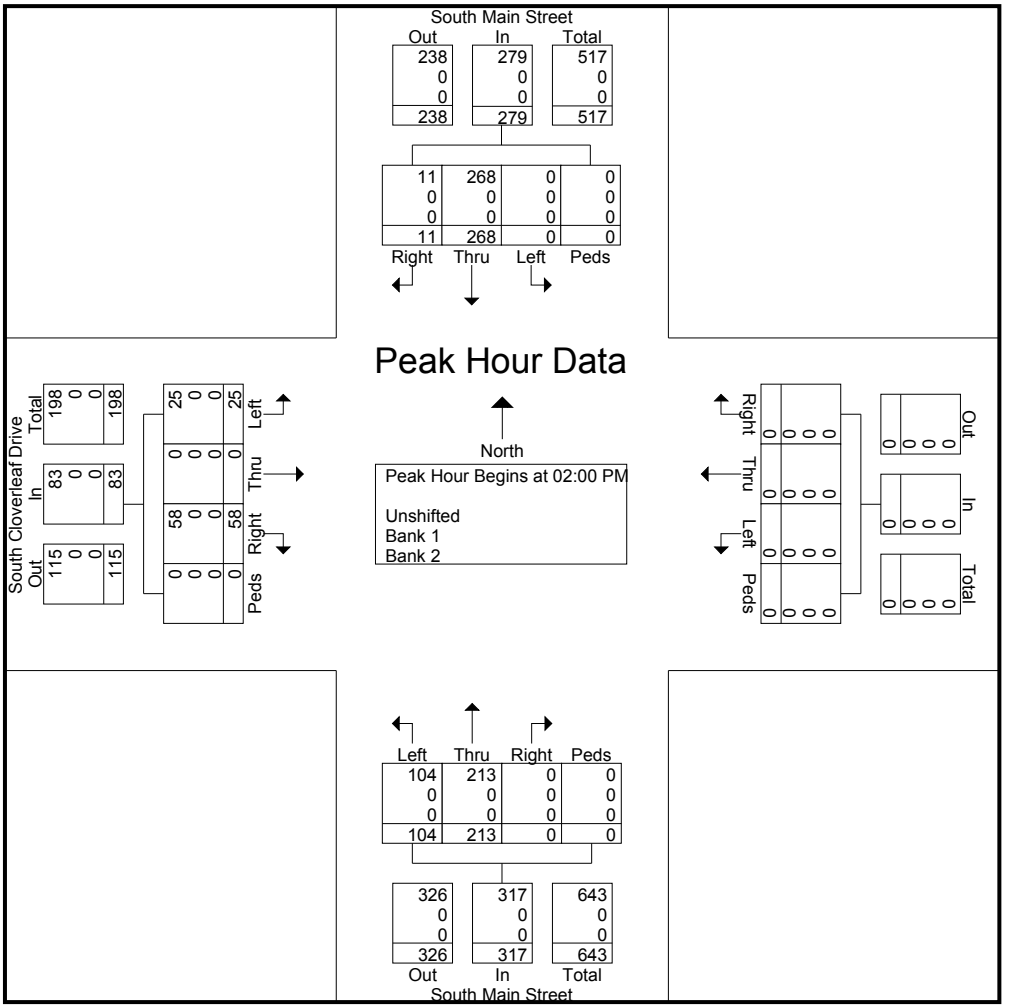
Groups Printed- Unshifted - Bank 1 - Bank 2

	South Main Street From North				From East				South Main Street From South				South Cloverleaf Drive From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
02:00 PM	1	65	0	0	0	0	0	0	0	55	20	0	12	0	6	0	159
02:15 PM	5	56	0	0	0	0	0	0	0	38	21	0	10	0	6	0	136
02:30 PM	3	71	0	0	0	0	0	0	0	59	40	0	30	0	5	0	208
02:45 PM	2	76	0	0	0	0	0	0	0	61	23	0	6	0	8	0	176
Total	11	268	0	0	0	0	0	0	0	213	104	0	58	0	25	0	679
Grand Total	11	268	0	0	0	0	0	0	0	213	104	0	58	0	25	0	679
Apprch %	3.9	96.1	0	0	0	0	0	0	0	67.2	32.8	0	69.9	0	30.1	0	
Total %	1.6	39.5	0	0	0	0	0	0	0	31.4	15.3	0	8.5	0	3.7	0	
Unshifted	11	268	0	0	0	0	0	0	0	213	104	0	58	0	25	0	679
% Unshifted	100	100	0	0	0	0	0	0	0	100	100	0	100	0	100	0	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SRF ASSOCIATES, D.P.C.
3495 Winton Place, Building E, Suite 110
Rochester, New York 14623

File Name : S Main St-S Cloverleaf Dr Saturday
Site Code : 11111111
Start Date : 5/22/2021
Page No : 2

	South Main Street From North					From East					South Main Street From South					South Cloverleaf Drive 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 02:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 02:00 PM																					
02:00 PM	1	65	0	0	66	0	0	0	0	0	0	55	20	0	75	12	0	6	0	18	159
02:15 PM	**5**																				
02:30 PM	**3**	**71**	**0**	**0**	**74**	**0**	**0**	**0**	**0**	**0**	**0**	**59**	**40**	**0**	**99**	**30**	**0**	**5**	**0**	**35**	**208**
02:45 PM	2	**76**	0	0	**78**	0	0	0	0	0	0	**61**	23	0	84	6	0	**8**			
Total Volume	11	268	0	0	279	0	0	0	0	0	0	213	104	0	317	58	0	25	0	83	679
% App. Total	3.9	96.1	0	0		0	0	0	0		0	67.2	32.8	0		69.9	0	30.1	0		
PHF	.550	.882	.000	.000	.894	.000	.000	.000	.000	.000	.000	.873	.650	.000	.801	.483	.000	.781	.000	.593	.816
Unshifted	11	268	0	0	279	0	0	0	0	0	0	213	104	0	317	58	0	25	0	83	679
% Unshifted																					
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



SRF ASSOCIATES, D.P.C.
3495 Winton Place, Building E, Suite 110
Rochester, New York 14623

File Name : NY-14 at Snell - AM
Site Code : 22222222
Start Date : 5/27/2021
Page No : 1

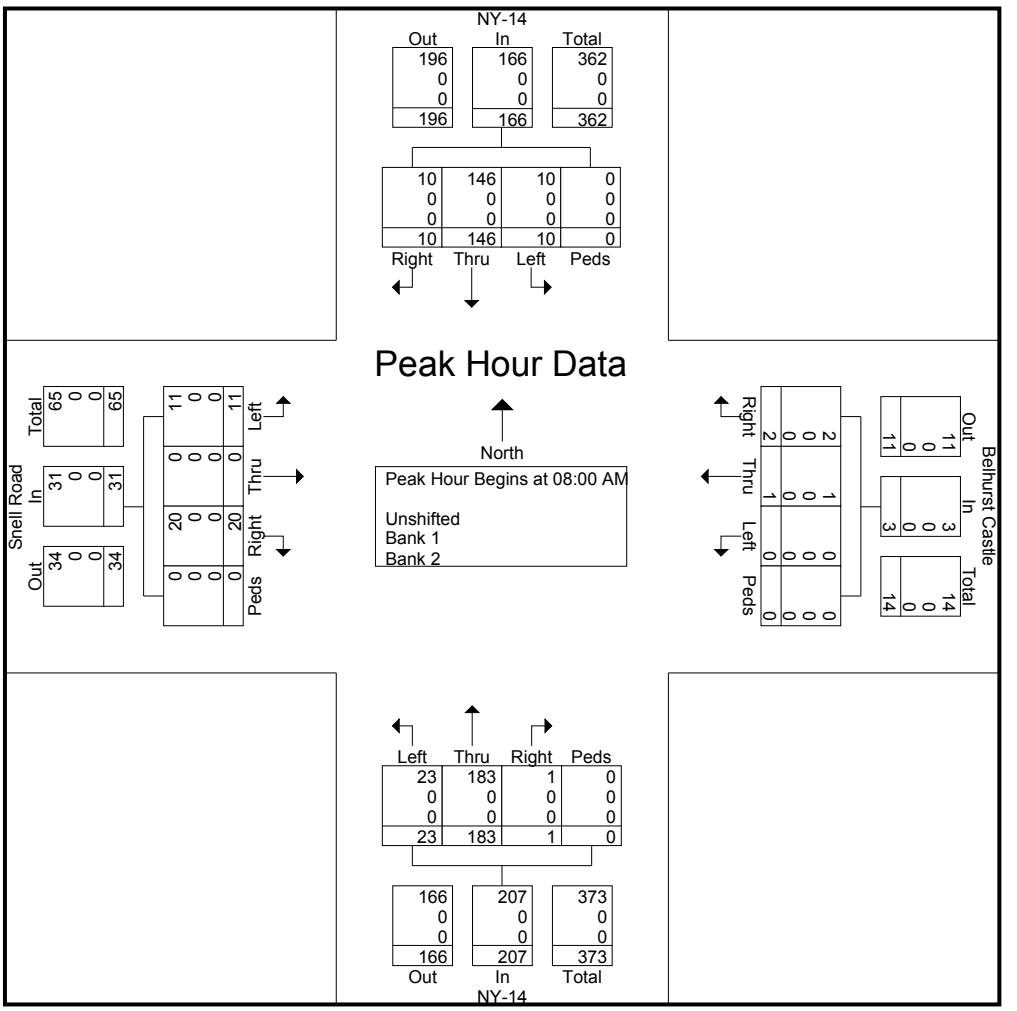
Groups Printed- Unshifted - Bank 1 - Bank 2

	NY-14 From North				Belhurst Castle From East				NY-14 From South				Snell Road From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
08:00 AM	3	37	1	0	0	0	0	0	0	46	4	0	1	0	4	0	96
08:15 AM	1	26	4	0	1	1	0	0	0	43	10	0	11	0	2	0	99
08:30 AM	3	51	3	0	0	0	0	0	1	47	6	0	3	0	4	0	118
08:45 AM	3	32	2	0	1	0	0	0	0	47	3	0	5	0	1	0	94
Total	10	146	10	0	2	1	0	0	1	183	23	0	20	0	11	0	407
Grand Total	10	146	10	0	2	1	0	0	1	183	23	0	20	0	11	0	407
Apprch %	6	88	6	0	66.7	33.3	0	0	0.5	88.4	11.1	0	64.5	0	35.5	0	
Total %	2.5	35.9	2.5	0	0.5	0.2	0	0	0.2	45	5.7	0	4.9	0	2.7	0	
Unshifted	10	146	10	0	2	1	0	0	1	183	23	0	20	0	11	0	407
% Unshifted	100	100	100	0	100	100	0	0	100	100	100	0	100	0	100	0	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SRF ASSOCIATES, D.P.C.
3495 Winton Place, Building E, Suite 110
Rochester, New York 14623

File Name : NY-14 at Snell - AM
Site Code : 22222222
Start Date : 5/27/2021
Page No : 2

	NY-14 From North					Belhurst Castle From East					NY-14 From South					Snell 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 08:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	**3**																	**4**			
08:15 AM	**1**	**26**	**4**	**0**	**31**	**1**	**1**	0	0	**2**	0	43	**10**	**0**	**53**	**11**	**0**	**2**	**0**	**13**	99
08:30 AM	3	**51**	3	0	**57**	0	0	0	0	0	**1**	**47**	6	0	**54**	3	0	4	0	7	**118**
08:45 AM	3	32	2	0	37	1	0	0	0	1	0	47	3	0	50	5	0	1	0	6	94
Total Volume	10	146	10	0	166	2	1	0	0	3	1	183	23	0	207	20	0	11	0	31	407
% App. Total	6	88	6	0		66.7	33.3	0	0		0.5	88.4	11.1	0		64.5	0	35.5	0		
PHF	.833	.716	.625	.000	.728	.500	.250	.000	.000	.375	.250	.973	.575	.000	.958	.455	.000	.688	.000	.596	.862
Unshifted	10	146	10	0	166	2	1	0	0	3	1	183	23	0	207	20	0	11	0	31	407
% Unshifted																					
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



SRF ASSOCIATES, D.P.C.
3495 Winton Place, Building E, Suite 110
Rochester, New York 14623

File Name : NY-14 at Snell - PM
Site Code : 33333333
Start Date : 5/27/2021
Page No : 1

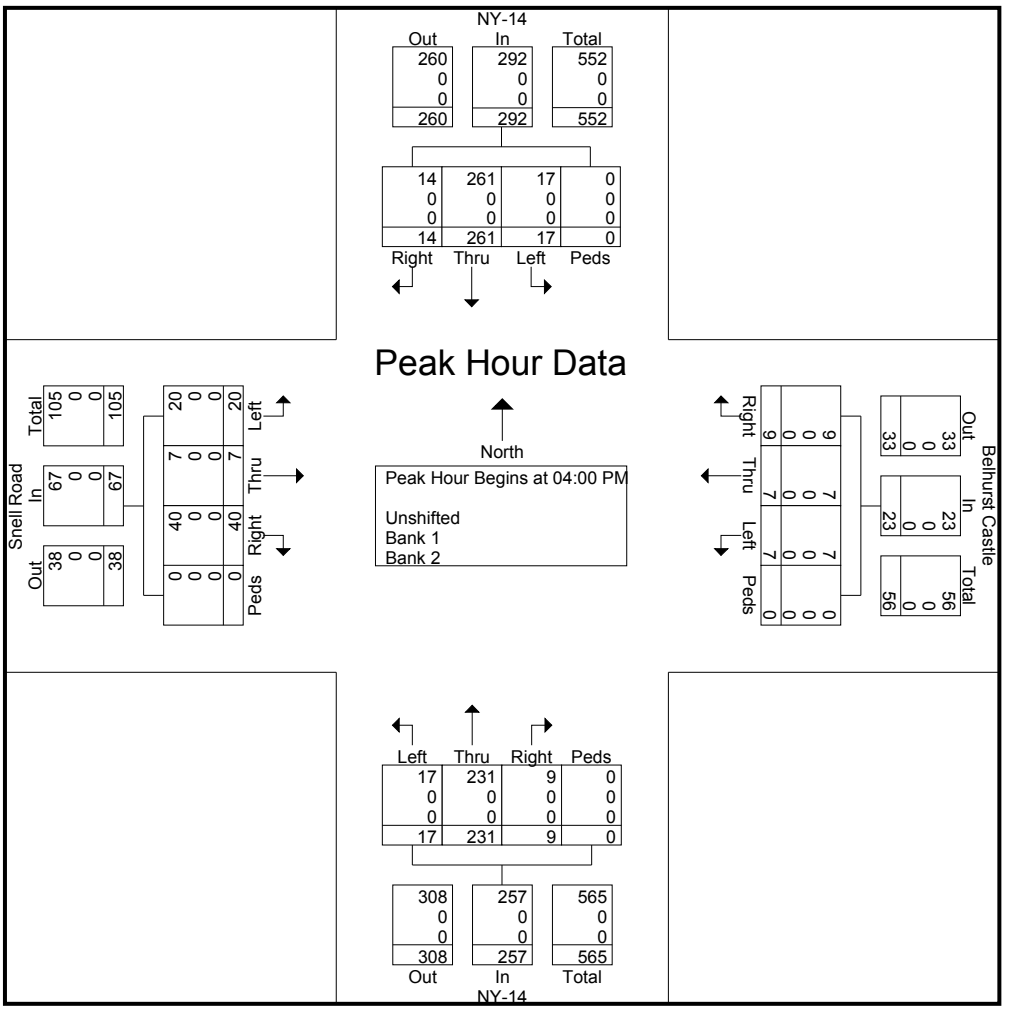
Groups Printed- Unshifted - Bank 1 - Bank 2

	NY-14 From North				Belhurst Castle From East				NY-14 From South				Snell Road From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	6	74	0	0	3	1	1	0	4	66	4	0	16	2	2	0	179
04:15 PM	2	66	4	0	0	2	4	0	1	52	5	0	5	3	4	0	148
04:30 PM	2	57	4	0	3	2	0	0	2	47	5	0	7	1	6	0	136
04:45 PM	4	64	9	0	3	2	2	0	2	66	3	0	12	1	8	0	176
Total	14	261	17	0	9	7	7	0	9	231	17	0	40	7	20	0	639
Grand Total	14	261	17	0	9	7	7	0	9	231	17	0	40	7	20	0	639
Apprch %	4.8	89.4	5.8	0	39.1	30.4	30.4	0	3.5	89.9	6.6	0	59.7	10.4	29.9	0	
Total %	2.2	40.8	2.7	0	1.4	1.1	1.1	0	1.4	36.2	2.7	0	6.3	1.1	3.1	0	
Unshifted	14	261	17	0	9	7	7	0	9	231	17	0	40	7	20	0	639
% Unshifted	100	100	100	0	100	100	100	0	100	100	100	0	100	100	100	0	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SRF ASSOCIATES, D.P.C.
3495 Winton Place, Building E, Suite 110
Rochester, New York 14623

File Name : NY-14 at Snell - PM
Site Code : 33333333
Start Date : 5/27/2021
Page No : 2

	NY-14 From North					Belhurst Castle From East					NY-14 From South					Snell 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 04:00 PM to 04:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	**6**	**74**	0	0	**80**	**3**					**4**	**66**	4	0	**74**	**16**					**179**
04:15 PM	2	66	4	0	72	0	**2**	**4**					**5**				**3**	4	0	12	148
04:30 PM	2	57	4	0	63	3	2	0	0	5	2	47	5	0	54	7	1	6	0	14	136
04:45 PM	4	64	**9**							**7**	2	66	3	0	71	12	1	**8**		**21**	176
Total Volume	14	261	17	0	292	9	7	7	0	23	9	231	17	0	257	40	7	20	0	67	639
% App. Total	4.8	89.4	5.8	0		39.1	30.4	30.4	0		3.5	89.9	6.6	0		59.7	10.4	29.9	0		
PHF	.583	.882	.472	.000	.913	.750	.875	.438	.000	.821	.563	.875	.850	.000	.868	.625	.583	.625	.000	.798	.892
Unshifted	14	261	17	0	292	9	7	7	0	23	9	231	17	0	257	40	7	20	0	67	639
% Unshifted																					
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



SRF ASSOCIATES, D.P.C.
3495 Winton Place, Building E, Suite 110
Rochester, New York 14623

File Name : NY-14 at Snell - Saturday
Site Code : 11111111
Start Date : 5/22/2021
Page No : 1

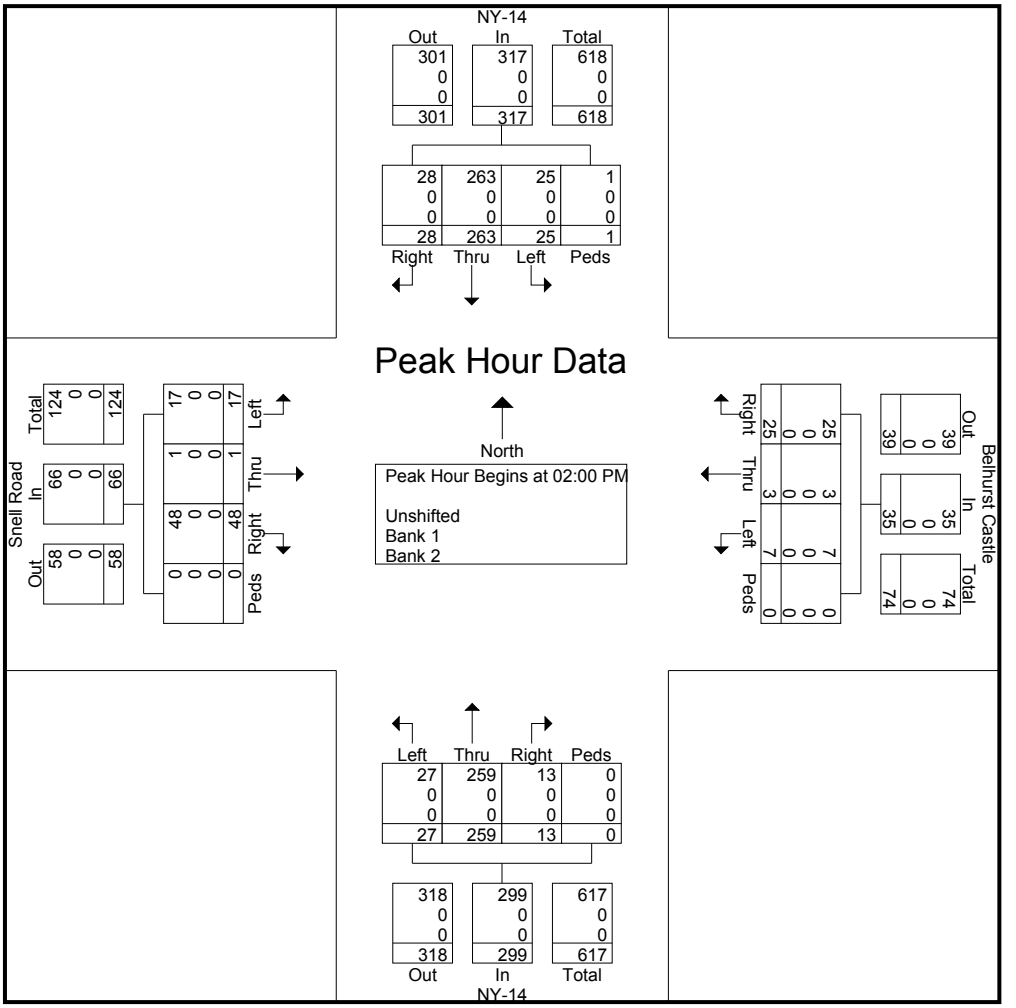
Groups Printed- Unshifted - Bank 1 - Bank 2

	NY-14 From North				Belhurst Castle From East				NY-14 From South				Snell Road From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
02:00 PM	5	55	4	1	5	1	2	0	2	68	6	0	15	0	5	0	169
02:15 PM	7	74	7	0	4	2	0	0	3	77	6	0	13	1	1	0	195
02:30 PM	5	66	10	0	7	0	5	0	6	59	7	0	6	0	8	0	179
02:45 PM	11	68	4	0	9	0	0	0	2	55	8	0	14	0	3	0	174
Total	28	263	25	1	25	3	7	0	13	259	27	0	48	1	17	0	717
Grand Total	28	263	25	1	25	3	7	0	13	259	27	0	48	1	17	0	717
Apprch %	8.8	83	7.9	0.3	71.4	8.6	20	0	4.3	86.6	9	0	72.7	1.5	25.8	0	
Total %	3.9	36.7	3.5	0.1	3.5	0.4	1	0	1.8	36.1	3.8	0	6.7	0.1	2.4	0	
Unshifted	28	263	25	1	25	3	7	0	13	259	27	0	48	1	17	0	717
% Unshifted	100	100	100	100	100	100	100	0	100	100	100	0	100	100	100	0	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SRF ASSOCIATES, D.P.C.
3495 Winton Place, Building E, Suite 110
Rochester, New York 14623

File Name : NY-14 at Snell - Saturday
Site Code : 11111111
Start Date : 5/22/2021
Page No : 2

	NY-14 From North					Belhurst Castle From East					NY-14 From South					Snell 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 02:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 02:00 PM																					
02:00 PM	5	55	4	**1**												**15**				**20**	169
02:15 PM	7	**74**	7	0	**88**	4	**2**	0	0	6	3	**77**	6	0	**86**	13	**1**	1	0	15	**195**
02:30 PM	5	66	**10**					**5**		**12**	**6**							**8**			
02:45 PM	**11**	**68**	**4**	**0**	**83**	**9**	**0**	**0**	**0**	**9**	**2**	**55**	**8**	**0**	**65**	**14**	**0**	**3**	**0**	**17**	**174**
Total Volume	28	263	25	1	317	25	3	7	0	35	13	259	27	0	299	48	1	17	0	66	717
% App. Total	8.8	83	7.9	0.3		71.4	8.6	20	0		4.3	86.6	9	0		72.7	1.5	25.8	0		
PHF	.636	.889	.625	.250	.901	.694	.375	.350	.000	.729	.542	.841	.844	.000	.869	.800	.250	.531	.000	.825	.919
Unshifted	28	263	25	1	317	25	3	7	0	35	13	259	27	0	299	48	1	17	0	66	717
% Unshifted																					
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

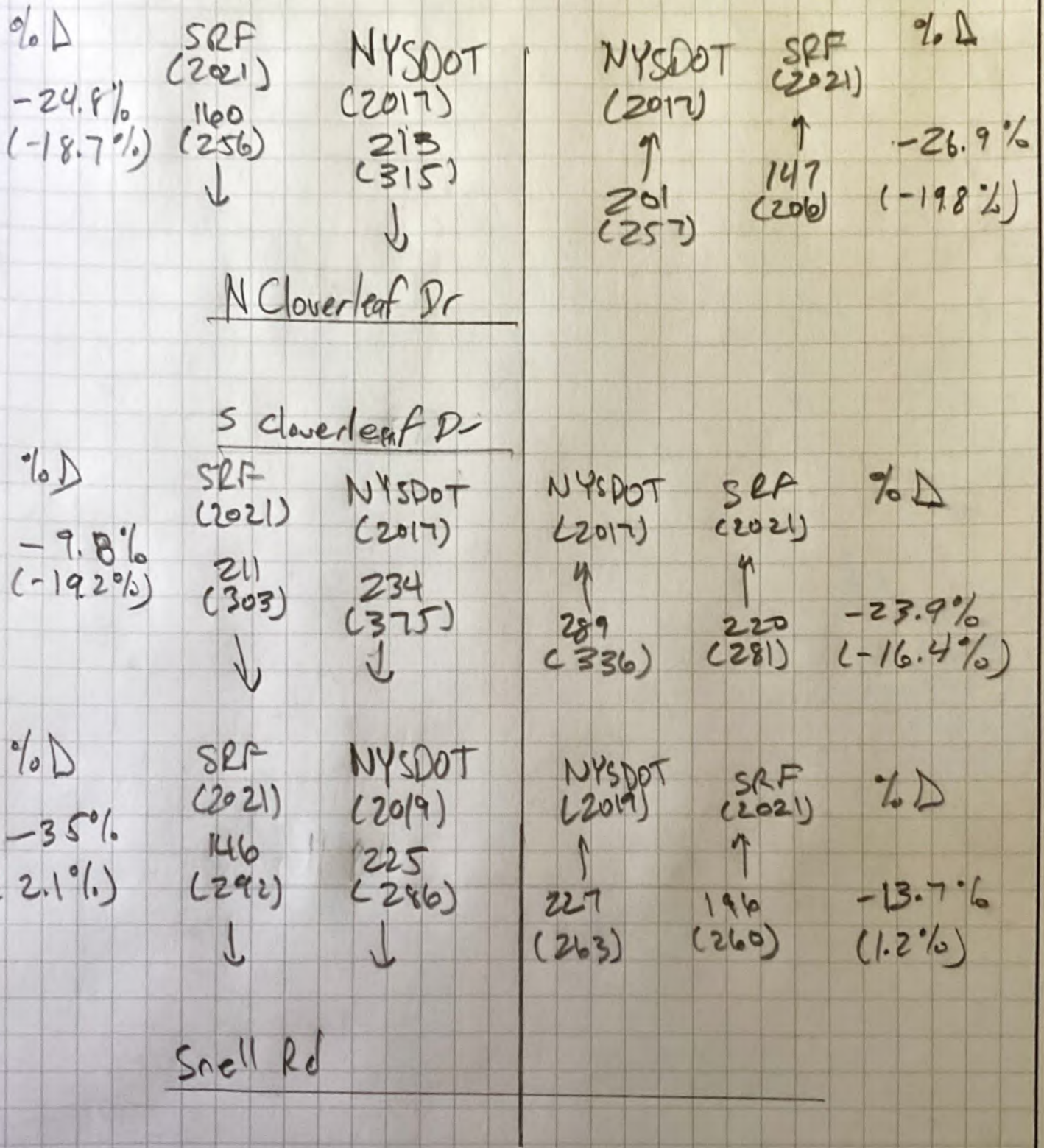


A2

Miscellaneous Traffic Data and Calculations

SRF & Associates
Traffic Engineering & Planning Consultants
3495 Winton Place, Bldg. E-110
Rochester, NY 14623
Phone 585-272-4660 Fax 585-272-4662

JOB 1115 Lockland COVID Adjustment
SHEET NO. 1 OF 1
CALCULATED BY NCM DATE 6/7/21
CHECKED BY DATE
SCALE



Key
AM(PM) = 00(00)

Average Percentage Difference Between 2020 Weekday MADT and Average Weekday MADT - Urban Other Roadways													
Month	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9	Region 10	Region 11	Statewide	Average Region 1-9
January	1.91	-1.62	1.97	-0.35	5.92	1.8	-0.41	5.4	2.45	3.48	-5	2.26	1.90
February	0.29	-3.1	4.19	3.39	0.15	1.06	-2.65	5.11	0.27	2.21	-4.33	1.39	0.97
March	-22.07	-17.9	-14.99	-13.72	-22.69	-15.43	-15.87	-20.62	-16.94	-20.16	-21.25	-18.37	-17.80
April	-44.04	-32.92	-36.96	-38.92	-47.45	-33.89	-27.33	-49.68	-37.8	-47.83	-50.75	-41.75	-38.78
May	-34.77	-24.6	-23.45	-26.61	-42.35	-25.92	-17.88	-37.69	-24.28	-36.85	-39.16	-31	-28.62
June	-22.87	-19.52	-12.69	-14.4	-20.53	-15.07	-6.51	-26.58	-17.2	-19.8	-25.27	-18.79	-17.26
July	-13.58	-4.84	-9.1	-11.37	-11.11	-9.09	-5.32	-21.02	-13.48	-14.42	-23.88	-12.72	-10.99
August	-14.57	-7.78	-7.93	-13.02	-11.74	-9.42	-8.92	-16.22	-12.13	-7.91	-22.41	-11.61	-11.30
September	-14.36	-5.14	-5.86	-8.91	-12.29	-9.9	-10.68	-16.51	-11.56	-6.42	-27.42	-11.21	-10.58
October	-12.88	-1.43	-4.01	-12.09	-12.99	-14.01	-9.65	-17.56	-12.76	-9.71	-29.68	-11.87	-10.82
November	-15.49	-8.79	-9.27	-13.09	-17.11	-16.76	-10.38	-19.16	-14.48	-11.5	-30.13	-14.85	-13.84
December	-13.37	-8.63	-7.51	-13.46	-19.83	-12.95	-7.29	-18.35	-12.76	-12.19	-4.11	-13	-12.68
Avg from Mar-Dec	-20.80	-13.16	-13.18	-16.56	-21.81	-16.24	-11.98	-24.34	-17.34	-18.68	-27.41	-18.52	-17.27
Avg from July-Dec	-14.04	-6.10	-7.28	-11.99	-14.18	-12.02	-8.71	-18.14	-12.86	-10.36	-22.94	-12.54	-11.70

Proposed 1115 Lochland Rd Redevelopment, City of Geneva, Ontario County, NY

Documentation of Ambient Traffic Volume Growth

Roadway	Segment starts at	Segment end at	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Annual Growth
NY 14	Rte 20	Park Pl		8,076			7,130			5,766				-5.46%
NY 14	Geneva S City Line	Jay St					7,064			7,113		6,461		-1.77%
													AVERAGE	-3.61%

PROJECT DETAILS

Project Name:	1115 Lochland Rd Geneva	Type of Project:	
Project No:		City:	
Country:		Built-up Area(Sq.ft):	
Analyst Name:	Amy Dake	Clients Name:	
Date:	6/4/2021	ZIP/Postal Code:	
State/Province:		No. of Scenarios:	3
Analysis Region:			

SCENARIO SUMMARY

Scenarios	Name	No. of Land Uses	Phases of Development	No. of Years to Project Traffic	User Group	Estimated New Vehicle Trips		
						Entry	Exit	Total
Scenario - 1	AM Peak	3	1	0		73	72	145
Scenario - 2	PM Peak	3	1	0		94	68	162
Scenario - 3	SAT Peak	3	1	0		100	86	186

Scenario - 1

Scenario Name: AM Peak
User Group:
Dev. phase: 1
No. of Years to Project Traffic : 0
Analyst Note:
Warning:

VEHICLE TRIPS BEFORE REDUCTION

Land Use & Data Source	Location	IV	Size	Time Period	Method Rate/Equation	Entry Split%	Exit Split%	Total
310 - Hotel	General Urban/Suburban	Rooms	125	Weekday, Peak Hour of Adjacent Street Traffic,	Best Fit (LIN)	34	23	57
Data Source: Trip Gen Manual, 10th Ed +					T = 0.50(X) - 5.34	59%	41%	
220 - Multifamily Housing (Low-Rise)	General Urban/Suburban	Dwelling Units	57	Weekday, Peak Hour of Adjacent Street Traffic,	Best Fit (LOG)	6	22	28
Data Source: Trip Gen Manual, 10th Ed +					Ln(T) =0.95Ln(X) - 0.51	23%	77%	
932 - High-Turnover (Sit-Down) Restaurant	General Urban/Suburban	1000 Sq. Ft. GFA	6	Weekday, Peak Hour of Adjacent Street Traffic,	Average	33	27	60
Data Source: Trip Gen Manual, 10th Ed +					9.94	55%	45%	

VEHICLE TO PERSON TRIP CONVERSION

BASELINE SITE VEHICLE CHARACTERISTICS:

Land Use	Baseline Site Vehicle Mode Share		Baseline Site Vehicle Occupancy		Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
310 - Hotel	100	100	1	1	59	41
220 - Multifamily Housing (Low-Rise)	100	100	1	1	23	77
932 - High-Turnover (Sit-Down) Restaurant	100	100	1	1	55	45

ESTIMATED BASELINE SITE PERSON TRIPS:

Land Use	Person Trips by Vehicle		Person Trips by Other Modes		Total Baseline Site Person Trips	
	Entry	Exit	Entry	Exit	Entry	Exit
310 - Hotel	34	23	0	0	34	23
	57		0		57	
220 - Multifamily Housing (Low-Rise)	6	22	0	0	6	22
	28		0		28	
932 - High-Turnover (Sit-Down) Restaurant	33	27	0	0	33	27
	60		0		60	

NEW VEHICLE TRIPS

Land Use	New Vehicle Trips		
	Entry	Exit	Total
310 - Hotel	34	23	57
220 - Multifamily Housing (Low-Rise)	6	22	28
932 - High-Turnover (Sit-Down) Restaurant	33	27	60

RESULTS

Site Totals	Entry	Exit	Total
Vehicle Trips Before Reduction	73	72	145
External Vehicle Trips	73	72	145
New Vehicle Trips	73	72	145

Scenario - 2

Scenario Name: PM Peak
User Group:
Dev. phase: 1
No. of Years to Project Traffic : 0
Analyst Note:
Warning:

VEHICLE TRIPS BEFORE REDUCTION

Land Use & Data Source	Location	IV	Size	Time Period	Method / Rate/Equation	Entry / Split%	Exit / Split%	Total
310 - Hotel	General Urban/Suburban	Rooms	125	Weekday, Peak Hour of Adjacent Street Traffic,	Best Fit (LIN)	35	33	68
Data Source: Trip Gen Manual, 10th Ed +					T = 0.75(X) - 26.02	51%	49%	
220 - Multifamily Housing (Low-Rise)	General Urban/Suburban	Dwelling Units	57	Weekday, Peak Hour of Adjacent Street Traffic,	Best Fit (LOG)	23	13	36
Data Source: Trip Gen Manual, 10th Ed +					Ln(T) =0.89Ln(X) - 0.02	63%	37%	
932 - High-Turnover (Sit-Down) Restaurant	General Urban/Suburban	1000 Sq. Ft. GFA	6	Weekday, Peak Hour of Adjacent Street Traffic,	Average	36	22	58
Data Source: Trip Gen Manual, 10th Ed +					9.77	62%	38%	

VEHICLE TO PERSON TRIP CONVERSION

BASELINE SITE VEHICLE CHARACTERISTICS:

Land Use	Baseline Site Vehicle Mode Share		Baseline Site Vehicle Occupancy		Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
310 - Hotel	100	100	1	1	51	49
220 - Multifamily Housing (Low-Rise)	100	100	1	1	63	37
932 - High-Turnover (Sit-Down) Restaurant	100	100	1	1	62	38

ESTIMATED BASELINE SITE PERSON TRIPS:

Land Use	Person Trips by Vehicle		Person Trips by Other Modes		Total Baseline Site Person Trips	
	Entry	Exit	Entry	Exit	Entry	Exit
310 - Hotel	35	33	0	0	35	33
	68		0		68	
220 - Multifamily Housing (Low-Rise)	23	13	0	0	23	13
	36		0		36	
932 - High-Turnover (Sit-Down) Restaurant	36	22	0	0	36	22
	58		0		58	

NEW VEHICLE TRIPS

Land Use	New Vehicle Trips		
	Entry	Exit	Total
310 - Hotel	35	33	68
220 - Multifamily Housing (Low-Rise)	23	13	36
932 - High-Turnover (Sit-Down) Restaurant	36	22	58

RESULTS

Site Totals	Entry	Exit	Total
Vehicle Trips Before Reduction	94	68	162
External Vehicle Trips	94	68	162
New Vehicle Trips	94	68	162

Scenario - 3

Scenario Name: SAT Peak
User Group:
Dev. phase: 1
No. of Years to Project Traffic : 0
Analyst Note:
Warning:

VEHICLE TRIPS BEFORE REDUCTION

Land Use & Data Source	Location	IV	Size	Time Period	Method / Rate/Equation	Entry / Split%	Exit / Split%	Total
310 - Hotel	General Urban/Suburban	Rooms	125	Saturday, Peak Hour of Generator	Best Fit (LIN)	51	40	91
Data Source: Trip Gen Manual, 10th Ed +					T = 0.69(X) + 4.32	56%	44%	
220 - Multifamily Housing (Low-Rise)	General Urban/Suburban	Dwelling Units	57	Saturday, Peak Hour of Generator	Best Fit (LIN)	15	13	28
Data Source: Trip Gen Manual, 10th Ed +					T = 1.08(X) - 33.24	54%	46%	
932 - High-Turnover (Sit-Down) Restaurant	General Urban/Suburban	1000 Sq. Ft. GFA	6	Saturday, Peak Hour of Generator	Average	34	33	67
Data Source: Trip Gen Manual, 10th Ed +					11.19	51%	49%	

VEHICLE TO PERSON TRIP CONVERSION

BASELINE SITE VEHICLE CHARACTERISTICS:

Land Use	Baseline Site Vehicle Mode Share		Baseline Site Vehicle Occupancy		Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
310 - Hotel	100	100	1	1	56	44
220 - Multifamily Housing (Low-Rise)	100	100	1	1	54	46
932 - High-Turnover (Sit-Down) Restaurant	100	100	1	1	51	49

ESTIMATED BASELINE SITE PERSON TRIPS:

Land Use	Person Trips by Vehicle		Person Trips by Other Modes		Total Baseline Site Person Trips	
	Entry	Exit	Entry	Exit	Entry	Exit
310 - Hotel	51	40	0	0	51	40
	91		0		91	
220 - Multifamily Housing (Low-Rise)	15	13	0	0	15	13
	28		0		28	
932 - High-Turnover (Sit-Down) Restaurant	34	33	0	0	34	33
	67		0		67	

NEW VEHICLE TRIPS

Land Use	New Vehicle Trips		
	Entry	Exit	Total
310 - Hotel	51	40	91
220 - Multifamily Housing (Low-Rise)	15	13	28
932 - High-Turnover (Sit-Down) Restaurant	34	33	67

RESULTS

Site Totals	Entry	Exit	Total
Vehicle Trips Before Reduction	100	86	186
External Vehicle Trips	100	86	186
New Vehicle Trips	100	86	186

PROJECT: Proposed Redevelopment
LOCATION: NY-14, City of Geneva, New York
PEAK HOUR: AM Peak

Figure Number:		3a	3b	4	6				7	8
				Num of yrs						
				2						
LOCATION NUMBER	INTERSECTION DESCRIPTION	Unadjusted Volumes	2021 Adjusted Base	2023 Bkgd Vol 1.0%	Proposed Redevelopment Enter Dist. %	Exit Dist. %	Trips IN 83	Trips OUT 76	Total Site Trips	Full Build Volumes
1	NY-14/ N Cloverleaf Dr		1.20							
	SR	45	54	55						55
	ST	115	138	141	38%		32		32	173
	SL									
	WR									
	WT									
	WL									
	NR									
	NT	146	175	179		38%		29	29	208
	NL	31	37	38		15%		11	11	49
	ER	77	92	94	17%		14		14	108
	ET									
	EL	1	1	1						1
2	NY-14/ S Cloverleaf Dr									
	SR									
	ST	188	226	230	55%		46		46	276
	SL									
	WR									
	WT									
	WL									
	NR									
	NT	164	197	201		53%		40	40	241
	NL	56	67	69		17%		13	13	82
	ER	23	28	28	15%		12		12	40
	ET									
	EL	18	22	22						22
3	NY-14/ Snell Rd/Bellhurst Castle Dwy									
	SR	10	12	12		2%		2	2	14
	ST	146	175	179		28%		21	21	200
	SL	10	12	12						12
	WR	2	2	2						2
	WT	1	1	1						1
	WL									
	NR	1	1	1						1
	NT	183	220	224	28%		23		23	247
	NL	23	28	28						28
	ER	20	24	24						24
	ET									
	EL	11	13	13	2%		2		2	15
4	NY-14/ Proposed Dwy									
	SR									
	ST	146	175	179						179
	SL				70%		58		58	58
	WR					70%		53	53	53
	WT									
	WL					30%		23	23	23
	NR				30%		25		25	25
	NT	196	235	240						240
	NL									
	ER									
	ET									
	EL									

PROJECT: Proposed Redevelopment
LOCATION: NY-14, City of Geneva, New York
PEAK HOUR: PM Peak

Figure Number:		3a	3b	4	6				7	8
				Num of yrs						
				2						
LOCATION NUMBER	INTERSECTION DESCRIPTION	Unadjusted Volumes	2021 Adjusted Base	2023 Bkgd Vol 1.0%	Proposed Redevelopment Enter Dist. %	Exit Dist. %	Trips IN 118	Trips OUT 79	Total Site Trips	Full Build Volumes
1	NY-14/ N Cloverleaf Dr		1.12							
	SR	76	85	87						87
	ST	180	202	206	38%		45		45	251
	SL									
	WR									
	WT									
	WL									
	NR									
	NT	204	228	233		38%		30	30	263
	NL	47	53	54		15%		12	12	66
	ER	86	96	98	17%		20		20	118
	ET									
	EL	2	2	2						2
2	NY-14/ S Cloverleaf Dr									
	SR	5	6	6						6
	ST	261	292	298	55%		65		65	363
	SL									
	WR									
	WT									
	WL									
	NR									
	NT	208	233	238		53%		42	42	280
	NL	73	82	83		17%		13	13	96
	ER	42	47	48	15%		18		18	66
	ET									
	EL	32	36	37						37
3	NY-14/ Snell Rd/Bellhurst Castle Dwy									
	SR	14	16	16		2%		2	2	18
	ST	261	292	298		28%		22	22	320
	SL	17	19	19						19
	WR	9	10	10						10
	WT	7	8	8						8
	WL	7	8	8						8
	NR	9	10	10						10
	NT	231	259	264	28%		33		33	297
	NL	17	19	19						19
	ER	40	45	46						46
	ET	7	8	8						8
	EL	20	22	23	2%		2		2	25
4	NY-14/ Proposed Dwy									
	SR									
	ST	292	327	334						334
	SL				70%		83		83	83
	WR					70%		55	55	55
	WT									
	WL					30%		24	24	24
	NR				30%		35		35	35
	NT	260	291	297						297
	NL									
	ER									
	ET									
	EL									

PROJECT: Proposed Redevelopment
LOCATION: NY-14, City of Geneva, New York
PEAK HOUR: SAT Peak

Figure Number:		3a	3b	4	6				7	8
				Num of yrs						
				2						
LOCATION NUMBER	INTERSECTION DESCRIPTION	Unadjusted Volumes	2021 Adjusted Base	2023 Bkgd Vol 1.0%	Proposed Redevelopment Enter Dist. %	Exit Dist. %	Trips IN 120	Trips OUT 98	Total Site Trips	Full Build Volumes
1	NY-14/ N Cloverleaf Dr		1.12							
	SR	61	68	70						70
	ST	176	197	201	38%		46		46	247
	SL									
	WR									
	WT									
	WL									
	NR									
	NT	194	217	222		38%		37	37	259
	NL	38	43	43		15%		15	15	58
	ER	104	116	119	17%		20		20	139
	ET									
	EL	1	1	1						1
2	NY-14/ S Cloverleaf Dr									
	SR	11	12	13						13
	ST	268	300	306	55%		66		66	372
	SL									
	WR									
	WT									
	WL									
	NR									
	NT	213	239	243		53%		52	52	295
	NL	104	116	119		17%		17	17	136
	ER	58	65	66	15%		18		18	84
	ET									
	EL	25	28	29						29
3	NY-14/ Snell Rd/Bellhurst Castle Dwy									
	SR	28	31	32		2%		2	2	34
	ST	263	295	300		28%		27	27	327
	SL	25	28	29						29
	WR	25	28	29						29
	WT	3	3	3						3
	WL	7	8	8						8
	NR	13	15	15						15
	NT	259	290	296	28%		34		34	330
	NL	27	30	31						31
	ER	48	54	55						55
	ET	1	1	1						1
	EL	17	19	19	2%		2		2	21
4	NY-14/ Proposed Dwy									
	SR									
	ST	316	354	361						361
	SL				70%		84		84	84
	WR					70%		69	69	69
	WT									
	WL					30%		29	29	29
	NR				30%		36		36	36
	NT	301	337	344						344
	NL									
	ER									
	ET									
	EL									

Int #	NY 14/N Cloverleaf Dr	Left turn	Rear-end	Overtaking	Right Angle	Right Turn	Head On	Side-swipe	Fixed Object	Backing	Other	Animal	Bike/Ped	Total	Injury	Non Injury	Non-Repo	Sum
1													1	1	1			1
	TOTALS	0	0	0	0	0	0	0	0	0	0	0	1		1	0	0	

	Northbound	Southbound	Eastbound	Westbound	Unknown	Totals
Left turn						0
Rear-end						0
Overtaking						0
Right Angle						0
Right Turn						0
Head On						0
Side-swipe						0
Fixed Object						0
Backing						0
Other						0
Bike/Ped		1				1
Animal						0
Totals	0	1	0	0	0	1

---

1 **NY 14/N Cloverleaf Dr - 36 months**

ADT = Peak hour entering volume / k factor

ADT = 666 VPH / 0.10 = 7010.52632 VPD

Rate = $\frac{1 \text{ Acc.}}{7010.52632 \text{ VPD} \times 365 \text{ Days} \times 3.000 \text{ Yrs.}} \times 1{,}000{,}000 = 0.13$ Crash / MEV

Int #																
2	**NY 14/S Cloverleaf Dr**															
	Left turn	Rear-end	Overtaking	Right Angle	Right Turn	Head On	Side-swipe	Fixed Object	Backing	Other	Animal	Bike/Ped	**Total**	Injury	Non Injury	Non-Repo	**Sum**
		1											**1**		1		**1**
TOTALS	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**	**1**	**0**	

	Northbound	Southbound	Eastbound	Westbound	Unknown	**Totals**
Left turn						**0**
Rear-end	1					**1**
Overtaking						**0**
Right Angle						**0**
Right Turn						**0**
Head On						**0**
Side-swipe						**0**
Fixed Object						**0**
Backing						**0**
Other						**0**
Bike/Ped						**0**
Animal						**0**
Totals	**1**	**0**	**0**	**0**	**0**	**1**

---

2 **NY 14/S Cloverleaf Dr - 36 months**

ADT = Peak hour entering volume / k factor

ADT = 696 VPH / 0.10 = 7326.31579 VPD

Rate = 1 Acc. / (7326.31579 VPD x 1,000,000 / 365 Days x 3.000 Yrs.) = 0.12 Crash / MEV

Int #																
3	NY 14/Snell Rd															
	Left turn	Rear-end	Overtaking	Right Angle	Right Turn	Head On	Side-swipe	Fixed Object	Backing	Other	Animal	Bike/Ped	**Total**	Injury	Non Injury	Non-Repo	**Sum**
		1								2	1		**4**	1	3		**4**
TOTALS	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**1**	**0**		**1**	**3**	**0**	

	Northbound	Southbound	Eastbound	Westbound	Unknown	**Totals**
Left turn						**0**
Rear-end	1					**1**
Overtaking						**0**
Right Angle						**0**
Right Turn						**0**
Head On						**0**
Side-swipe						**0**
Fixed Object						**0**
Backing						**0**
Other		1		1		**2**
Bike/Ped						**0**
Animal			1			**1**
Totals	**1**	**1**	**1**	**1**	**0**	**4**

---

3 **NY 14/Snell Rd - 36 months**

ADT = Peak hour entering volume / k factor

ADT = 720 VPH / 0.10 = 7578.947 VPD

$$\text{Rate} = \frac{4 \text{ Acc.} \times 1{,}000{,}000}{7578.9474 \text{ VPD} \times 365 \text{ Days} \times 3.000 \text{ Yrs.}} = 0.48 \text{ Crash / MEV}$$

Guideline for determining left-turn Lane at a two-way stop-controlled intersection
TWO LANE ROADWAY

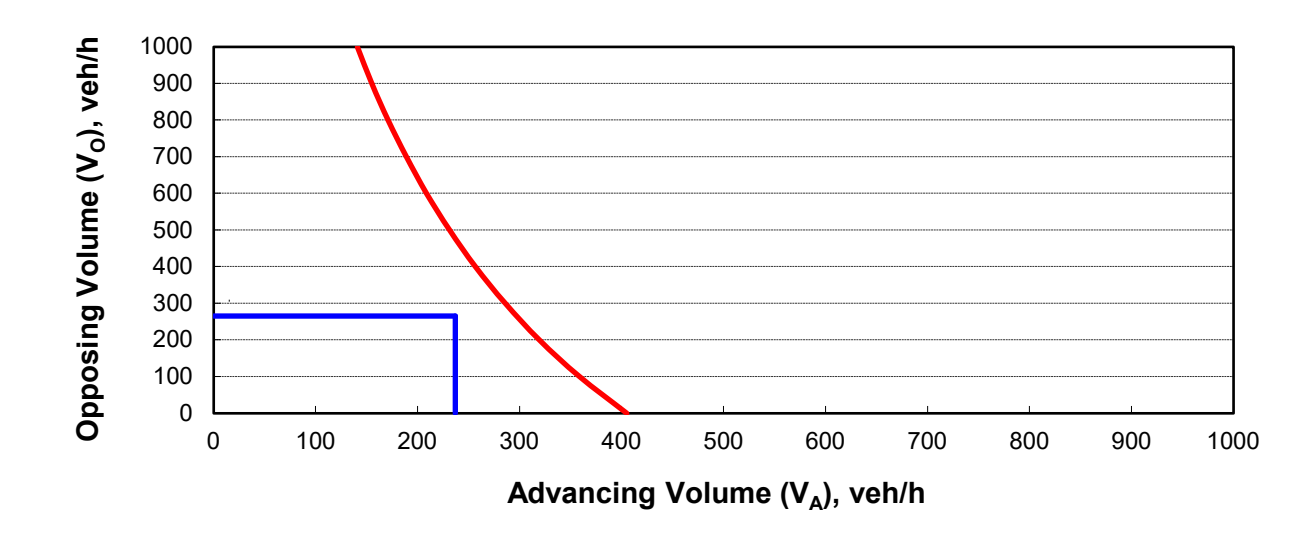
INPUT

Variable	Value
Major Approach	NY14 and Proposed Driveway
Approach	SB - AM Peak Full Build
Design Speed Limit - MPH	40
Percent of left-turns in advancing volume (V_A), %:	24%
Advancing volume (V_A), veh/h:	237
Opposing volume (V_O), veh/h:	265

CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

PLOT - LINE 1		PLOT - LINE 2	
0	265	237	0
237	265	237	265



OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	297
Guidance for determining the need for a major-road left-turn bay:	
SB - AM Peak Full Build Left-turn treatment NOT warranted at NY14 and Proposed Driveway Intersectio	

Guideline for determining left-turn Lane at a two-way stop-controlled intersection
TWO LANE ROADWAY

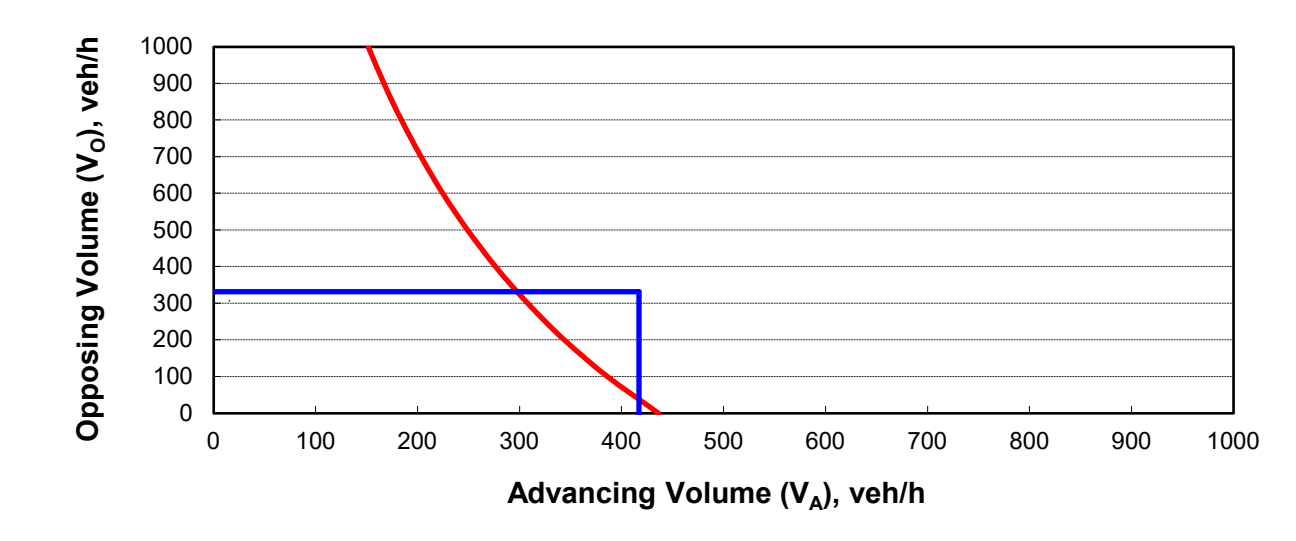
INPUT

Variable	Value
Major Approach	NY14 and Proposed Driveway
Approach	SB - PM Peak Full Build
Design Speed Limit - MPH	40
Percent of left-turns in advancing volume (V_A), %:	20%
Advancing volume (V_A), veh/h:	417
Opposing volume (V_O), veh/h:	332

CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

PLOT - LINE 1		PLOT - LINE 2	
0	332	417	0
417	332	417	332



OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	297
Guidance for determining the need for a major-road left-turn bay:	
SB - PM Peak Full Build Left-turn treatment warranted at NY14 and Proposed Driveway Intersections	

Guideline for determining left-turn Lane at a two-way stop-controlled intersection
TWO LANE ROADWAY

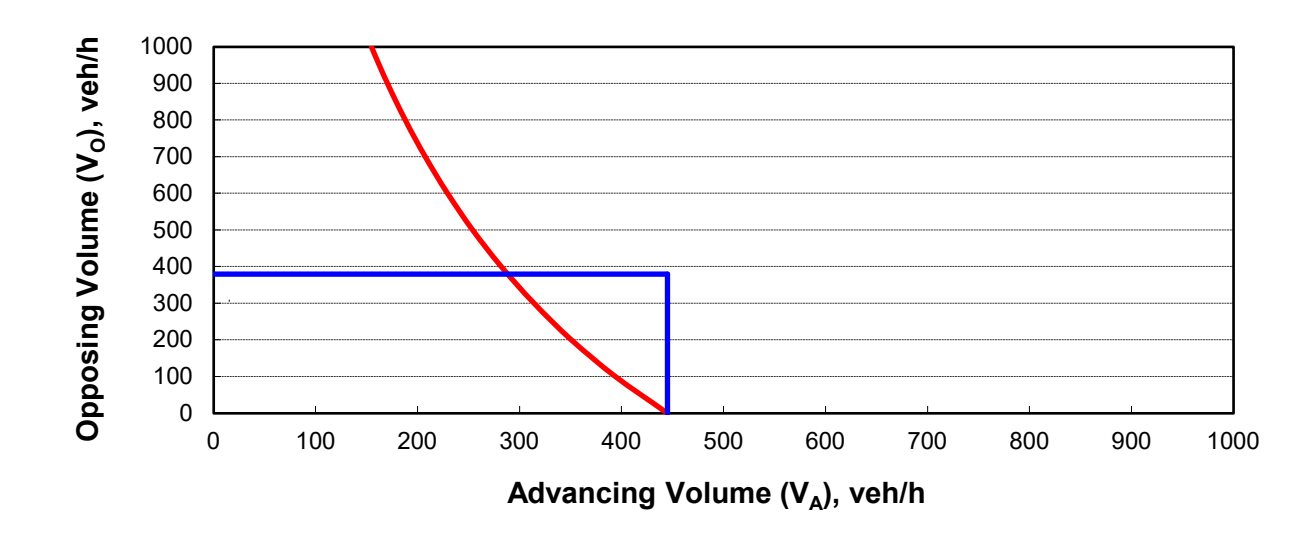
INPUT

Variable	Value
Major Approach	NY14 and Proposed Driveway
Approach	SB - SAT Peak Full Build
Design Speed Limit - MPH	40
Percent of left-turns in advancing volume (V_A), %:	19%
Advancing volume (V_A), veh/h:	445
Opposing volume (V_O), veh/h:	380

CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

PLOT - LINE 1		PLOT - LINE 2	
0	380	445	0
445	380	445	380



OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	288
Guidance for determining the need for a major-road left-turn bay:	
SB - SAT Peak Full Build Left-turn treatment warranted at NY14 and Proposed Driveway Intersections	

A3

Level of Service: Criteria and Definitions

Level of Service Criteria

Highway Capacity Manual 2016

SIGNALIZED INTERSECTIONS

Level of Service is a qualitative measure describing operational conditions within a traffic stream, based on service measures such as speed and travel time, freedom to maneuver, traffic interruptions, comfort, and convenience. Level of Service for signalized intersections is defined in terms of delay specifically, average total delay per vehicle for a 15 minute analysis period. The ranges are as follows:

Level of Service	Control Delay per vehicle (seconds)
A	< 10
B	10 – 20
C	20 – 35
D	35 – 55
E	55 – 80
F	>80

UNSIGNALIZED INTERSECTIONS

Level of Service for unsignalized intersections is also defined in terms of delay. However, the delay criteria are different from a signalized intersection. The primary reason for this is driver expectation that a signalized intersection is designed to carry higher volumes than an unsignalized intersection. The total delay threshold for any given Level of Service is less for an unsignalized intersection than for a signalized intersection. The ranges are as follows:

Level of Service	Control Delay per vehicle (seconds)
A	< 10
B	10 – 15
C	15 – 25
D	25 – 35
E	35 - 50
F	>50

A4

Level of Service Calculations: Existing Conditions

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1	92	37	175	138	54
Future Volume (vph)	1	92	37	175	138	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.866				0.962	
Flt Protected				0.991		
Satd. Flow (prot)	1613	0	0	1846	1792	0
Flt Permitted				0.991		
Satd. Flow (perm)	1613	0	0	1846	1792	0
Link Speed (mph)	30			35	35	
Link Distance (ft)	318			591	440	
Travel Time (s)	7.2			11.5	8.6	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	1	101	41	192	152	59
Shared Lane Traffic (%)						
Lane Group Flow (vph)	102	0	0	233	211	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 37.6%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	92	37	175	138	54
Future Vol, veh/h	1	92	37	175	138	54
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	101	41	192	152	59

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	456	182	211	0	-	0
Stage 1	182	-	-	-	-	-
Stage 2	274	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	562	861	1360	-	-	-
Stage 1	849	-	-	-	-	-
Stage 2	772	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	543	861	1360	-	-	-
Mov Cap-2 Maneuver	543	-	-	-	-	-
Stage 1	820	-	-	-	-	-
Stage 2	772	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.8	1.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1360	-	856	-	-
HCM Lane V/C Ratio	0.03	-	0.119	-	-
HCM Control Delay (s)	7.7	0	9.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.4	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	22	28	67	197	226	0
Future Volume (vph)	22	28	67	197	226	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.924					
Flt Protected	0.979			0.987		
Satd. Flow (prot)	1685	0	0	1839	1863	0
Flt Permitted	0.979			0.987		
Satd. Flow (perm)	1685	0	0	1839	1863	0
Link Speed (mph)	30			35	35	
Link Distance (ft)	299			807	591	
Travel Time (s)	6.8			15.7	11.5	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	24	31	74	216	248	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	55	0	0	290	248	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	39.3%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	22	28	67	197	226	0
Future Vol, veh/h	22	28	67	197	226	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	31	74	216	248	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	612	248	248	0	-	0
Stage 1	248	-	-	-	-	-
Stage 2	364	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	456	791	1318	-	-	-
Stage 1	793	-	-	-	-	-
Stage 2	703	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	427	791	1318	-	-	-
Mov Cap-2 Maneuver	427	-	-	-	-	-
Stage 1	742	-	-	-	-	-
Stage 2	703	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.9	2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1318	-	575	-	-
HCM Lane V/C Ratio	0.056	-	0.096	-	-
HCM Control Delay (s)	7.9	0	11.9	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.3	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	0	24	0	1	2	28	220	1	12	175	12
Future Volume (vph)	13	0	24	0	1	2	28	220	1	12	175	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.912			0.910						0.992	
Flt Protected		0.983						0.994			0.997	
Satd. Flow (prot)	0	1670	0	0	1695	0	0	1852	0	0	1842	0
Flt Permitted		0.983						0.994			0.997	
Satd. Flow (perm)	0	1670	0	0	1695	0	0	1852	0	0	1842	0
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		744			411			495			508	
Travel Time (s)		16.9			9.3			9.6			9.9	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	15	0	28	0	1	2	33	256	1	14	203	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	43	0	0	3	0	0	290	0	0	231	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 36.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	0	24	0	1	2	28	220	1	12	175	12
Future Vol, veh/h	13	0	24	0	1	2	28	220	1	12	175	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	0	28	0	1	2	33	256	1	14	203	14

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	562	561	210	575	568	257	217	0	0	257	0	0
Stage 1	238	238	-	323	323	-	-	-	-	-	-	-
Stage 2	324	323	-	252	245	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	438	436	830	429	432	782	1353	-	-	1308	-	-
Stage 1	765	708	-	689	650	-	-	-	-	-	-	-
Stage 2	688	650	-	752	703	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	423	419	830	402	415	782	1353	-	-	1308	-	-
Mov Cap-2 Maneuver	423	419	-	402	415	-	-	-	-	-	-	-
Stage 1	744	700	-	670	632	-	-	-	-	-	-	-
Stage 2	666	632	-	718	695	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.2	11	0.9	0.5
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1353	-	-	620	604	1308	-	-
HCM Lane V/C Ratio	0.024	-	-	0.069	0.006	0.011	-	-
HCM Control Delay (s)	7.7	0	-	11.2	11	7.8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0	0	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	2	96	53	228	202	85
Future Volume (vph)	2	96	53	228	202	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.867				0.960	
Flt Protected	0.999			0.991		
Satd. Flow (prot)	1613	0	0	1846	1788	0
Flt Permitted	0.999			0.991		
Satd. Flow (perm)	1613	0	0	1846	1788	0
Link Speed (mph)	30			35	35	
Link Distance (ft)	318			591	440	
Travel Time (s)	7.2			11.5	8.6	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	2	108	60	256	227	96
Shared Lane Traffic (%)						
Lane Group Flow (vph)	110	0	0	316	323	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	46.8%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	96	53	228	202	85
Future Vol, veh/h	2	96	53	228	202	85
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	108	60	256	227	96

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	651	275	323	0	-	0
Stage 1	275	-	-	-	-	-
Stage 2	376	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	433	764	1237	-	-	-
Stage 1	771	-	-	-	-	-
Stage 2	694	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	408	764	1237	-	-	-
Mov Cap-2 Maneuver	408	-	-	-	-	-
Stage 1	727	-	-	-	-	-
Stage 2	694	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.6	1.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1237	-	751	-	-
HCM Lane V/C Ratio	0.048	-	0.147	-	-
HCM Control Delay (s)	8.1	0	10.6	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.5	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	36	47	82	233	292	6
Future Volume (vph)	36	47	82	233	292	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.923				0.997	
Flt Protected	0.979			0.987		
Satd. Flow (prot)	1683	0	0	1839	1857	0
Flt Permitted	0.979			0.987		
Satd. Flow (perm)	1683	0	0	1839	1857	0
Link Speed (mph)	30			35	35	
Link Distance (ft)	299			807	591	
Travel Time (s)	6.8			15.7	11.5	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	38	50	87	248	311	6
Shared Lane Traffic (%)						
Lane Group Flow (vph)	88	0	0	335	317	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	47.4%	ICU Level of Service	A
Analysis Period (min)	15		

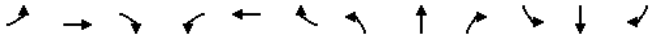
Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	36	47	82	233	292	6
Future Vol, veh/h	36	47	82	233	292	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	50	87	248	311	6

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	736	314	317	0	-	0
Stage 1	314	-	-	-	-	-
Stage 2	422	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	386	726	1243	-	-	-
Stage 1	741	-	-	-	-	-
Stage 2	662	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	355	726	1243	-	-	-
Mov Cap-2 Maneuver	355	-	-	-	-	-
Stage 1	681	-	-	-	-	-
Stage 2	662	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.7	2.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1243	-	500	-	-
HCM Lane V/C Ratio	0.07	-	0.177	-	-
HCM Control Delay (s)	8.1	0	13.7	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.6	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	22	8	45	8	8	10	19	263	10	19	292	16
Future Volume (vph)	22	8	45	8	8	10	19	263	10	19	292	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.919			0.949			0.995			0.993	
Flt Protected		0.986			0.985			0.997			0.997	
Satd. Flow (prot)	0	1688	0	0	1741	0	0	1848	0	0	1844	0
Flt Permitted		0.986			0.985			0.997			0.997	
Satd. Flow (perm)	0	1688	0	0	1741	0	0	1848	0	0	1844	0
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		744			411			495			508	
Travel Time (s)		16.9			9.3			9.6			9.9	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	25	9	51	9	9	11	21	296	11	21	328	18
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	85	0	0	29	0	0	328	0	0	367	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 34.3%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	22	8	45	8	8	10	19	263	10	19	292	16
Future Vol, veh/h	22	8	45	8	8	10	19	263	10	19	292	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	25	9	51	9	9	11	21	296	11	21	328	18

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	733	728	337	753	732	302	346	0	0	307	0	0
Stage 1	379	379	-	344	344	-	-	-	-	-	-	-
Stage 2	354	349	-	409	388	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	336	350	705	326	348	738	1213	-	-	1254	-	-
Stage 1	643	615	-	671	637	-	-	-	-	-	-	-
Stage 2	663	633	-	619	609	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	314	335	705	287	333	738	1213	-	-	1254	-	-
Mov Cap-2 Maneuver	314	335	-	287	333	-	-	-	-	-	-	-
Stage 1	629	602	-	657	624	-	-	-	-	-	-	-
Stage 2	630	620	-	554	596	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.2	14.8	0.5	0.5
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1213	-	-	475	397	1254	-	-
HCM Lane V/C Ratio	0.018	-	-	0.177	0.074	0.017	-	-
HCM Control Delay (s)	8	0	-	14.2	14.8	7.9	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6	0.2	0.1	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1	116	43	217	197	68
Future Volume (vph)	1	116	43	217	197	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.866				0.965	
Flt Protected				0.992		
Satd. Flow (prot)	1613	0	0	1848	1798	0
Flt Permitted				0.992		
Satd. Flow (perm)	1613	0	0	1848	1798	0
Link Speed (mph)	30			35	35	
Link Distance (ft)	318			591	440	
Travel Time (s)	7.2			11.5	8.6	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	1	140	52	261	237	82
Shared Lane Traffic (%)						
Lane Group Flow (vph)	141	0	0	313	319	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	45.5%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	116	43	217	197	68
Future Vol, veh/h	1	116	43	217	197	68
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	140	52	261	237	82

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	643	278	319	0	-	0
Stage 1	278	-	-	-	-	-
Stage 2	365	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	438	761	1241	-	-	-
Stage 1	769	-	-	-	-	-
Stage 2	702	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	417	761	1241	-	-	-
Mov Cap-2 Maneuver	417	-	-	-	-	-
Stage 1	731	-	-	-	-	-
Stage 2	702	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.9	1.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1241	-	756	-	-
HCM Lane V/C Ratio	0.042	-	0.186	-	-
HCM Control Delay (s)	8	0	10.9	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.7	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	28	65	116	239	300	12
Future Volume (vph)	28	65	116	239	300	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.906				0.995	
Flt Protected	0.985			0.984		
Satd. Flow (prot)	1662	0	0	1833	1853	0
Flt Permitted	0.985			0.984		
Satd. Flow (perm)	1662	0	0	1833	1853	0
Link Speed (mph)	30			35	35	
Link Distance (ft)	299			807	591	
Travel Time (s)	6.8			15.7	11.5	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	34	79	141	291	366	15
Shared Lane Traffic (%)						
Lane Group Flow (vph)	113	0	0	432	381	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 51.1%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	28	65	116	239	300	12
Future Vol, veh/h	28	65	116	239	300	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	34	79	141	291	366	15

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	947	374	381	0	-	0
Stage 1	374	-	-	-	-	-
Stage 2	573	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	290	672	1177	-	-	-
Stage 1	696	-	-	-	-	-
Stage 2	564	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	249	672	1177	-	-	-
Mov Cap-2 Maneuver	249	-	-	-	-	-
Stage 1	596	-	-	-	-	-
Stage 2	564	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.8	2.8	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1177	-	445	-	-
HCM Lane V/C Ratio	0.12	-	0.255	-	-
HCM Control Delay (s)	8.5	0	15.8	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.4	-	1	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	1	54	8	3	28	30	290	15	28	295	31
Future Volume (vph)	19	1	54	8	3	28	30	290	15	28	295	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.902			0.904			0.994			0.988	
Flt Protected		0.987			0.989			0.995			0.996	
Satd. Flow (prot)	0	1658	0	0	1665	0	0	1842	0	0	1833	0
Flt Permitted		0.987			0.989			0.995			0.996	
Satd. Flow (perm)	0	1658	0	0	1665	0	0	1842	0	0	1833	0
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		744			411			495			508	
Travel Time (s)		16.9			9.3			9.6			9.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	21	1	59	9	3	30	33	315	16	30	321	34
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	81	0	0	42	0	0	364	0	0	385	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 37.3%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	19	1	54	8	3	28	30	290	15	28	295	31
Future Vol, veh/h	19	1	54	8	3	28	30	290	15	28	295	31
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	1	59	9	3	30	33	315	16	30	321	34

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	804	795	338	817	804	323	355	0	0	331	0	0
Stage 1	398	398	-	389	389	-	-	-	-	-	-	-
Stage 2	406	397	-	428	415	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	301	320	704	295	316	718	1204	-	-	1228	-	-
Stage 1	628	603	-	635	608	-	-	-	-	-	-	-
Stage 2	622	603	-	605	592	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	272	300	704	256	296	718	1204	-	-	1228	-	-
Mov Cap-2 Maneuver	272	300	-	256	296	-	-	-	-	-	-	-
Stage 1	607	584	-	613	587	-	-	-	-	-	-	-
Stage 2	572	582	-	536	574	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.7	13.1	0.7	0.6
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1204	-	-	494	485	1228	-	-
HCM Lane V/C Ratio	0.027	-	-	0.163	0.087	0.025	-	-
HCM Control Delay (s)	8.1	0	-	13.7	13.1	8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6	0.3	0.1	-	-

A5

Level of Service Calculations: Background Conditions

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1	94	38	179	141	55
Future Volume (vph)	1	94	38	179	141	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.866				0.962	
Flt Protected				0.991		
Satd. Flow (prot)	1613	0	0	1846	1792	0
Flt Permitted				0.991		
Satd. Flow (perm)	1613	0	0	1846	1792	0
Link Speed (mph)	30			35	35	
Link Distance (ft)	318			591	440	
Travel Time (s)	7.2			11.5	8.6	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	1	103	42	197	155	60
Shared Lane Traffic (%)						
Lane Group Flow (vph)	104	0	0	239	215	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	38.2%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	94	38	179	141	55
Future Vol, veh/h	1	94	38	179	141	55
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	103	42	197	155	60

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	466	185	215	0	-	0
Stage 1	185	-	-	-	-	-
Stage 2	281	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	555	857	1355	-	-	-
Stage 1	847	-	-	-	-	-
Stage 2	767	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	536	857	1355	-	-	-
Mov Cap-2 Maneuver	536	-	-	-	-	-
Stage 1	817	-	-	-	-	-
Stage 2	767	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.8	1.4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1355	-	852	-	-
HCM Lane V/C Ratio	0.031	-	0.123	-	-
HCM Control Delay (s)	7.7	0	9.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.4	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	22	28	69	201	230	0
Future Volume (vph)	22	28	69	201	230	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.924					
Flt Protected	0.979			0.987		
Satd. Flow (prot)	1685	0	0	1839	1863	0
Flt Permitted	0.979			0.987		
Satd. Flow (perm)	1685	0	0	1839	1863	0
Link Speed (mph)	30			35	35	
Link Distance (ft)	299			807	591	
Travel Time (s)	6.8			15.7	11.5	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	24	31	76	221	253	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	55	0	0	297	253	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 39.8%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	22	28	69	201	230	0
Future Vol, veh/h	22	28	69	201	230	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	31	76	221	253	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	626	253	253	0	-	0
Stage 1	253	-	-	-	-	-
Stage 2	373	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	448	786	1312	-	-	-
Stage 1	789	-	-	-	-	-
Stage 2	696	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	418	786	1312	-	-	-
Mov Cap-2 Maneuver	418	-	-	-	-	-
Stage 1	737	-	-	-	-	-
Stage 2	696	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12	2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1312	-	567	-	-
HCM Lane V/C Ratio	0.058	-	0.097	-	-
HCM Control Delay (s)	7.9	0	12	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.3	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	0	24	0	1	2	28	224	1	12	179	12
Future Volume (vph)	13	0	24	0	1	2	28	224	1	12	179	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.912			0.910						0.992	
Flt Protected		0.983						0.994			0.997	
Satd. Flow (prot)	0	1670	0	0	1695	0	0	1852	0	0	1842	0
Flt Permitted		0.983						0.994			0.997	
Satd. Flow (perm)	0	1670	0	0	1695	0	0	1852	0	0	1842	0
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		744			411			495			508	
Travel Time (s)		16.9			9.3			9.6			9.9	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	15	0	28	0	1	2	33	260	1	14	208	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	43	0	0	3	0	0	294	0	0	236	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 36.5%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	0	24	0	1	2	28	224	1	12	179	12
Future Vol, veh/h	13	0	24	0	1	2	28	224	1	12	179	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	0	28	0	1	2	33	260	1	14	208	14

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	571	570	215	584	577	261	222	0	0	261	0	0
Stage 1	243	243	-	327	327	-	-	-	-	-	-	-
Stage 2	328	327	-	257	250	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	432	431	825	423	427	778	1347	-	-	1303	-	-
Stage 1	761	705	-	686	648	-	-	-	-	-	-	-
Stage 2	685	648	-	748	700	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	416	413	825	396	409	778	1347	-	-	1303	-	-
Mov Cap-2 Maneuver	416	413	-	396	409	-	-	-	-	-	-	-
Stage 1	739	697	-	666	629	-	-	-	-	-	-	-
Stage 2	662	629	-	714	692	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.3	11.1	0.9	0.5
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1347	-	-	613	598	1303	-	-
HCM Lane V/C Ratio	0.024	-	-	0.07	0.006	0.011	-	-
HCM Control Delay (s)	7.7	0	-	11.3	11.1	7.8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0	0	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	2	98	54	233	206	87
Future Volume (vph)	2	98	54	233	206	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.867				0.960	
Flt Protected	0.999			0.991		
Satd. Flow (prot)	1613	0	0	1846	1788	0
Flt Permitted	0.999			0.991		
Satd. Flow (perm)	1613	0	0	1846	1788	0
Link Speed (mph)	30			35	35	
Link Distance (ft)	318			591	440	
Travel Time (s)	7.2			11.5	8.6	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	2	110	61	262	231	98
Shared Lane Traffic (%)						
Lane Group Flow (vph)	112	0	0	323	329	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	47.6%	ICU Level of Service	A
Analysis Period (min)	15		

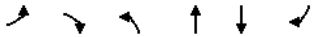
Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	98	54	233	206	87
Future Vol, veh/h	2	98	54	233	206	87
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	110	61	262	231	98

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	664	280	329	0	-	0
Stage 1	280	-	-	-	-	-
Stage 2	384	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	426	759	1231	-	-	-
Stage 1	767	-	-	-	-	-
Stage 2	688	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	401	759	1231	-	-	-
Mov Cap-2 Maneuver	401	-	-	-	-	-
Stage 1	723	-	-	-	-	-
Stage 2	688	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.7	1.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1231	-	746	-	-
HCM Lane V/C Ratio	0.049	-	0.151	-	-
HCM Control Delay (s)	8.1	0	10.7	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.5	-	-



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	37	48	83	238	298	6
Future Volume (vph)	37	48	83	238	298	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.923				0.997	
Flt Protected	0.979			0.987		
Satd. Flow (prot)	1683	0	0	1839	1857	0
Flt Permitted	0.979			0.987		
Satd. Flow (perm)	1683	0	0	1839	1857	0
Link Speed (mph)	30			35	35	
Link Distance (ft)	299			807	591	
Travel Time (s)	6.8			15.7	11.5	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	39	51	88	253	317	6
Shared Lane Traffic (%)						
Lane Group Flow (vph)	90	0	0	341	323	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	48.2%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	37	48	83	238	298	6
Future Vol, veh/h	37	48	83	238	298	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	51	88	253	317	6

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	749	320	323	0	-	0
Stage 1	320	-	-	-	-	-
Stage 2	429	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	379	721	1237	-	-	-
Stage 1	736	-	-	-	-	-
Stage 2	657	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	348	721	1237	-	-	-
Mov Cap-2 Maneuver	348	-	-	-	-	-
Stage 1	675	-	-	-	-	-
Stage 2	657	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14	2.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1237	-	492	-	-
HCM Lane V/C Ratio	0.071	-	0.184	-	-
HCM Control Delay (s)	8.1	0	14	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.7	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	8	46	8	8	10	19	264	10	19	298	16
Future Volume (vph)	23	8	46	8	8	10	19	264	10	19	298	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.919			0.949			0.995			0.994	
Flt Protected		0.985			0.985			0.997			0.997	
Satd. Flow (prot)	0	1686	0	0	1741	0	0	1848	0	0	1846	0
Flt Permitted		0.985			0.985			0.997			0.997	
Satd. Flow (perm)	0	1686	0	0	1741	0	0	1848	0	0	1846	0
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		744			411			495			508	
Travel Time (s)		16.9			9.3			9.6			9.9	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	26	9	52	9	9	11	21	297	11	21	335	18
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	87	0	0	29	0	0	329	0	0	374	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 34.8%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	23	8	46	8	8	10	19	264	10	19	298	16
Future Vol, veh/h	23	8	46	8	8	10	19	264	10	19	298	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	26	9	52	9	9	11	21	297	11	21	335	18

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	741	736	344	762	740	303	353	0	0	308	0	0
Stage 1	386	386	-	345	345	-	-	-	-	-	-	-
Stage 2	355	350	-	417	395	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	332	346	699	322	345	737	1206	-	-	1253	-	-
Stage 1	637	610	-	671	636	-	-	-	-	-	-	-
Stage 2	662	633	-	613	605	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	310	331	699	283	331	737	1206	-	-	1253	-	-
Mov Cap-2 Maneuver	310	331	-	283	331	-	-	-	-	-	-	-
Stage 1	624	597	-	657	623	-	-	-	-	-	-	-
Stage 2	629	620	-	547	592	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.4	14.9	0.5	0.5
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1206	-	-	469	394	1253	-	-
HCM Lane V/C Ratio	0.018	-	-	0.184	0.074	0.017	-	-
HCM Control Delay (s)	8	0	-	14.4	14.9	7.9	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.7	0.2	0.1	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1	119	43	222	201	70
Future Volume (vph)	1	119	43	222	201	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.866				0.965	
Flt Protected				0.992		
Satd. Flow (prot)	1613	0	0	1848	1798	0
Flt Permitted				0.992		
Satd. Flow (perm)	1613	0	0	1848	1798	0
Link Speed (mph)	30			35	35	
Link Distance (ft)	318			591	440	
Travel Time (s)	7.2			11.5	8.6	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	1	143	52	267	242	84
Shared Lane Traffic (%)						
Lane Group Flow (vph)	144	0	0	319	326	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	46.3%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	119	43	222	201	70
Future Vol, veh/h	1	119	43	222	201	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	143	52	267	242	84

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	655	284	326	0	-	0
Stage 1	284	-	-	-	-	-
Stage 2	371	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	431	755	1234	-	-	-
Stage 1	764	-	-	-	-	-
Stage 2	698	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	410	755	1234	-	-	-
Mov Cap-2 Maneuver	410	-	-	-	-	-
Stage 1	727	-	-	-	-	-
Stage 2	698	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.9	1.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1234	-	750	-	-
HCM Lane V/C Ratio	0.042	-	0.193	-	-
HCM Control Delay (s)	8	0	10.9	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.7	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	29	66	119	243	306	13
Future Volume (vph)	29	66	119	243	306	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.906				0.994	
Flt Protected	0.985			0.984		
Satd. Flow (prot)	1662	0	0	1833	1852	0
Flt Permitted	0.985			0.984		
Satd. Flow (perm)	1662	0	0	1833	1852	0
Link Speed (mph)	30			35	35	
Link Distance (ft)	299			807	591	
Travel Time (s)	6.8			15.7	11.5	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	35	80	145	296	373	16
Shared Lane Traffic (%)						
Lane Group Flow (vph)	115	0	0	441	389	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 51.9%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	29	66	119	243	306	13
Future Vol, veh/h	29	66	119	243	306	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	35	80	145	296	373	16

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	967	381	389	0	-	0
Stage 1	381	-	-	-	-	-
Stage 2	586	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	282	666	1170	-	-	-
Stage 1	691	-	-	-	-	-
Stage 2	556	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	240	666	1170	-	-	-
Mov Cap-2 Maneuver	240	-	-	-	-	-
Stage 1	589	-	-	-	-	-
Stage 2	556	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.4	2.8	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1170	-	432	-	-
HCM Lane V/C Ratio	0.124	-	0.268	-	-
HCM Control Delay (s)	8.5	0	16.4	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.4	-	1.1	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	1	55	8	3	29	31	296	15	29	300	32
Future Volume (vph)	19	1	55	8	3	29	31	296	15	29	300	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.901			0.902			0.994			0.988	
Flt Protected		0.987			0.990			0.995			0.996	
Satd. Flow (prot)	0	1657	0	0	1663	0	0	1842	0	0	1833	0
Flt Permitted		0.987			0.990			0.995			0.996	
Satd. Flow (perm)	0	1657	0	0	1663	0	0	1842	0	0	1833	0
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		744			411			495			508	
Travel Time (s)		16.9			9.3			9.6			9.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	21	1	60	9	3	32	34	322	16	32	326	35
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	82	0	0	44	0	0	372	0	0	393	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 37.9%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	19	1	55	8	3	29	31	296	15	29	300	32
Future Vol, veh/h	19	1	55	8	3	29	31	296	15	29	300	32
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	1	60	9	3	32	34	322	16	32	326	35

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	824	814	344	836	823	330	361	0	0	338	0	0
Stage 1	408	408	-	398	398	-	-	-	-	-	-	-
Stage 2	416	406	-	438	425	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	292	312	699	287	309	712	1198	-	-	1221	-	-
Stage 1	620	597	-	628	603	-	-	-	-	-	-	-
Stage 2	614	598	-	597	586	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	263	291	699	248	288	712	1198	-	-	1221	-	-
Mov Cap-2 Maneuver	263	291	-	248	288	-	-	-	-	-	-	-
Stage 1	598	577	-	606	582	-	-	-	-	-	-	-
Stage 2	563	577	-	527	567	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.9	13.2	0.7	0.6
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1198	-	-	486	480	1221	-	-
HCM Lane V/C Ratio	0.028	-	-	0.168	0.091	0.026	-	-
HCM Control Delay (s)	8.1	0	-	13.9	13.2	8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6	0.3	0.1	-	-

A6

Level of Service Calculations: Full Development Conditions

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1	108	49	208	173	55
Future Volume (vph)	1	108	49	208	173	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.866				0.968	
Flt Protected				0.991		
Satd. Flow (prot)	1613	0	0	1846	1803	0
Flt Permitted				0.991		
Satd. Flow (perm)	1613	0	0	1846	1803	0
Link Speed (mph)	30			35	35	
Link Distance (ft)	318			591	440	
Travel Time (s)	7.2			11.5	8.6	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	1	119	54	229	190	60
Shared Lane Traffic (%)						
Lane Group Flow (vph)	120	0	0	283	250	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	42.8%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	108	49	208	173	55
Future Vol, veh/h	1	108	49	208	173	55
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	119	54	229	190	60

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	557	220	250	0	-	0
Stage 1	220	-	-	-	-	-
Stage 2	337	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	491	820	1316	-	-	-
Stage 1	817	-	-	-	-	-
Stage 2	723	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	468	820	1316	-	-	-
Mov Cap-2 Maneuver	468	-	-	-	-	-
Stage 1	779	-	-	-	-	-
Stage 2	723	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.2	1.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1316	-	814	-	-
HCM Lane V/C Ratio	0.041	-	0.147	-	-
HCM Control Delay (s)	7.9	0	10.2	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.5	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	22	40	82	241	276	0
Future Volume (vph)	22	40	82	241	276	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.913					
Flt Protected	0.983			0.987		
Satd. Flow (prot)	1672	0	0	1839	1863	0
Flt Permitted	0.983			0.987		
Satd. Flow (perm)	1672	0	0	1839	1863	0
Link Speed (mph)	30			35	35	
Link Distance (ft)	299			807	591	
Travel Time (s)	6.8			15.7	11.5	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	24	44	90	265	303	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	68	0	0	355	303	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	45.4%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	22	40	82	241	276	0
Future Vol, veh/h	22	40	82	241	276	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	44	90	265	303	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	748	303	303	0	-	0
Stage 1	303	-	-	-	-	-
Stage 2	445	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	380	737	1258	-	-	-
Stage 1	749	-	-	-	-	-
Stage 2	646	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	348	737	1258	-	-	-
Mov Cap-2 Maneuver	348	-	-	-	-	-
Stage 1	686	-	-	-	-	-
Stage 2	646	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.8	2.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1258	-	528	-	-
HCM Lane V/C Ratio	0.072	-	0.129	-	-
HCM Control Delay (s)	8.1	0	12.8	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.4	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	0	24	0	1	2	28	247	1	12	200	14
Future Volume (vph)	15	0	24	0	1	2	28	247	1	12	200	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.916			0.910						0.992	
Flt Protected		0.981						0.995			0.997	
Satd. Flow (prot)	0	1674	0	0	1695	0	0	1853	0	0	1842	0
Flt Permitted		0.981						0.995			0.997	
Satd. Flow (perm)	0	1674	0	0	1695	0	0	1853	0	0	1842	0
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		744			411			495			494	
Travel Time (s)		16.9			9.3			9.6			9.6	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	17	0	28	0	1	2	33	287	1	14	233	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	45	0	0	3	0	0	321	0	0	263	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	38.3%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	0	24	0	1	2	28	247	1	12	200	14
Future Vol, veh/h	15	0	24	0	1	2	28	247	1	12	200	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	17	0	28	0	1	2	33	287	1	14	233	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	624	623	241	637	631	288	249	0	0	288	0	0
Stage 1	269	269	-	354	354	-	-	-	-	-	-	-
Stage 2	355	354	-	283	277	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	398	402	798	390	398	751	1317	-	-	1274	-	-
Stage 1	737	687	-	663	630	-	-	-	-	-	-	-
Stage 2	662	630	-	724	681	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	383	385	798	364	381	751	1317	-	-	1274	-	-
Mov Cap-2 Maneuver	383	385	-	364	381	-	-	-	-	-	-	-
Stage 1	715	678	-	643	611	-	-	-	-	-	-	-
Stage 2	639	611	-	690	672	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12	11.4	0.8	0.4
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1317	-	-	563	567	1274	-	-
HCM Lane V/C Ratio	0.025	-	-	0.081	0.006	0.011	-	-
HCM Control Delay (s)	7.8	0	-	12	11.4	7.9	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	0	0	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	23	53	240	25	58	179
Future Volume (vph)	23	53	240	25	58	179
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	100		0	0	
Storage Lanes	1	1		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850	0.987			
Flt Protected	0.950					0.988
Satd. Flow (prot)	1770	1583	1839	0	0	1840
Flt Permitted	0.950					0.988
Satd. Flow (perm)	1770	1583	1839	0	0	1840
Link Speed (mph)	30		35			35
Link Distance (ft)	280		494			398
Travel Time (s)	6.4		9.6			7.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	25	58	261	27	63	195
Shared Lane Traffic (%)						
Lane Group Flow (vph)	25	58	288	0	0	258
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 40.1%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	23	53	240	25	58	179
Future Vol, veh/h	23	53	240	25	58	179
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	25	58	261	27	63	195

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	596	275	0	0	288	0
Stage 1	275	-	-	-	-	-
Stage 2	321	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	466	764	-	-	1274	-
Stage 1	771	-	-	-	-	-
Stage 2	735	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	440	764	-	-	1274	-
Mov Cap-2 Maneuver	440	-	-	-	-	-
Stage 1	771	-	-	-	-	-
Stage 2	695	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.2	0	2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	440	764	1274	-
HCM Lane V/C Ratio	-	-	0.057	0.075	0.049	-
HCM Control Delay (s)	-	-	13.7	10.1	8	0
HCM Lane LOS	-	-	B	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.2	0.2	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	2	118	66	263	251	87
Future Volume (vph)	2	118	66	263	251	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.867				0.965	
Flt Protected	0.999			0.990		
Satd. Flow (prot)	1613	0	0	1844	1798	0
Flt Permitted	0.999			0.990		
Satd. Flow (perm)	1613	0	0	1844	1798	0
Link Speed (mph)	30			35	35	
Link Distance (ft)	318			591	440	
Travel Time (s)	7.2			11.5	8.6	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	2	133	74	296	282	98
Shared Lane Traffic (%)						
Lane Group Flow (vph)	135	0	0	370	380	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	53.4%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	118	66	263	251	87
Future Vol, veh/h	2	118	66	263	251	87
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	133	74	296	282	98

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	775	331	380	0	-	0
Stage 1	331	-	-	-	-	-
Stage 2	444	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	366	711	1178	-	-	-
Stage 1	728	-	-	-	-	-
Stage 2	646	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	339	711	1178	-	-	-
Mov Cap-2 Maneuver	339	-	-	-	-	-
Stage 1	673	-	-	-	-	-
Stage 2	646	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.4	1.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1178	-	698	-	-
HCM Lane V/C Ratio	0.063	-	0.193	-	-
HCM Control Delay (s)	8.3	0	11.4	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.7	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	37	66	96	280	363	6
Future Volume (vph)	37	66	96	280	363	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.913				0.998	
Flt Protected	0.982			0.987		
Satd. Flow (prot)	1670	0	0	1839	1859	0
Flt Permitted	0.982			0.987		
Satd. Flow (perm)	1670	0	0	1839	1859	0
Link Speed (mph)	30			35	35	
Link Distance (ft)	299			807	591	
Travel Time (s)	6.8			15.7	11.5	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	39	70	102	298	386	6
Shared Lane Traffic (%)						
Lane Group Flow (vph)	109	0	0	400	392	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	55.6%	ICU Level of Service	B
Analysis Period (min)	15		

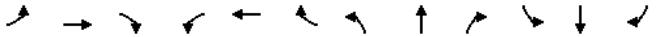
Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	37	66	96	280	363	6
Future Vol, veh/h	37	66	96	280	363	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	70	102	298	386	6

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	891	389	392	0	-	0
Stage 1	389	-	-	-	-	-
Stage 2	502	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	313	659	1167	-	-	-
Stage 1	685	-	-	-	-	-
Stage 2	608	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	280	659	1167	-	-	-
Mov Cap-2 Maneuver	280	-	-	-	-	-
Stage 1	613	-	-	-	-	-
Stage 2	608	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.8	2.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1167	-	443	-	-
HCM Lane V/C Ratio	0.088	-	0.247	-	-
HCM Control Delay (s)	8.4	0	15.8	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.3	-	1	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	8	46	8	8	10	19	297	10	19	320	18
Future Volume (vph)	25	8	46	8	8	10	19	297	10	19	320	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.921			0.949			0.996			0.993	
Flt Protected		0.985			0.985			0.997			0.997	
Satd. Flow (prot)	0	1690	0	0	1741	0	0	1850	0	0	1844	0
Flt Permitted		0.985			0.985			0.997			0.997	
Satd. Flow (perm)	0	1690	0	0	1741	0	0	1850	0	0	1844	0
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		744			411			495			494	
Travel Time (s)		16.9			9.3			9.6			9.6	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	28	9	52	9	9	11	21	334	11	21	360	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	89	0	0	29	0	0	366	0	0	401	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	36.7%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	8	46	8	8	10	19	297	10	19	320	18
Future Vol, veh/h	25	8	46	8	8	10	19	297	10	19	320	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	28	9	52	9	9	11	21	334	11	21	360	20

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	804	799	370	825	804	340	380	0	0	345	0	0
Stage 1	412	412	-	382	382	-	-	-	-	-	-	-
Stage 2	392	387	-	443	422	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	301	319	676	292	316	702	1178	-	-	1214	-	-
Stage 1	617	594	-	640	613	-	-	-	-	-	-	-
Stage 2	633	610	-	594	588	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	280	305	676	255	302	702	1178	-	-	1214	-	-
Mov Cap-2 Maneuver	280	305	-	255	302	-	-	-	-	-	-	-
Stage 1	603	581	-	626	600	-	-	-	-	-	-	-
Stage 2	600	597	-	528	575	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.5	15.8	0.5	0.4
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1178	-	-	430	361	1214	-	-
HCM Lane V/C Ratio	0.018	-	-	0.206	0.081	0.018	-	-
HCM Control Delay (s)	8.1	0	-	15.5	15.8	8	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.8	0.3	0.1	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	24	55	297	35	83	334
Future Volume (vph)	24	55	297	35	83	334
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	100		0	0	
Storage Lanes	1	1		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850	0.986			
Flt Protected	0.950					0.990
Satd. Flow (prot)	1770	1583	1837	0	0	1844
Flt Permitted	0.950					0.990
Satd. Flow (perm)	1770	1583	1837	0	0	1844
Link Speed (mph)	30		30			30
Link Distance (ft)	280		494			398
Travel Time (s)	6.4		11.2			9.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	26	60	323	38	90	363
Shared Lane Traffic (%)						
Lane Group Flow (vph)	26	60	361	0	0	453
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60		60	60	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	53.3%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	2.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	24	55	297	35	83	334
Future Vol, veh/h	24	55	297	35	83	334
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	60	323	38	90	363

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	885	342	0	0	361	0
Stage 1	342	-	-	-	-	-
Stage 2	543	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	315	701	-	-	1198	-
Stage 1	719	-	-	-	-	-
Stage 2	582	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	285	701	-	-	1198	-
Mov Cap-2 Maneuver	285	-	-	-	-	-
Stage 1	719	-	-	-	-	-
Stage 2	527	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.1	0	1.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	285	701	1198	-
HCM Lane V/C Ratio	-	-	0.092	0.085	0.075	-
HCM Control Delay (s)	-	-	18.9	10.6	8.2	0
HCM Lane LOS	-	-	C	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.3	0.2	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1	139	58	259	247	70
Future Volume (vph)	1	139	58	259	247	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.866				0.970	
Flt Protected				0.991		
Satd. Flow (prot)	1613	0	0	1846	1807	0
Flt Permitted				0.991		
Satd. Flow (perm)	1613	0	0	1846	1807	0
Link Speed (mph)	30			35	35	
Link Distance (ft)	318			591	440	
Travel Time (s)	7.2			11.5	8.6	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	1	167	70	312	298	84
Shared Lane Traffic (%)						
Lane Group Flow (vph)	168	0	0	382	382	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	52.8%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	139	58	259	247	70
Future Vol, veh/h	1	139	58	259	247	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	167	70	312	298	84

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	792	340	382	0	-	0
Stage 1	340	-	-	-	-	-
Stage 2	452	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	358	702	1176	-	-	-
Stage 1	721	-	-	-	-	-
Stage 2	641	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	332	702	1176	-	-	-
Mov Cap-2 Maneuver	332	-	-	-	-	-
Stage 1	669	-	-	-	-	-
Stage 2	641	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.8	1.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1176	-	696	-	-
HCM Lane V/C Ratio	0.059	-	0.242	-	-
HCM Control Delay (s)	8.3	0	11.8	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.9	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	29	84	136	295	372	13
Future Volume (vph)	29	84	136	295	372	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.899				0.995	
Flt Protected	0.987			0.984		
Satd. Flow (prot)	1653	0	0	1833	1853	0
Flt Permitted	0.987			0.984		
Satd. Flow (perm)	1653	0	0	1833	1853	0
Link Speed (mph)	30			35	35	
Link Distance (ft)	299			807	591	
Travel Time (s)	6.8			15.7	11.5	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	35	102	166	360	454	16
Shared Lane Traffic (%)						
Lane Group Flow (vph)	137	0	0	526	470	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 60.2%		ICU Level of Service B	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	29	84	136	295	372	13
Future Vol, veh/h	29	84	136	295	372	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	35	102	166	360	454	16

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1154	462	470	0	-	0
Stage 1	462	-	-	-	-	-
Stage 2	692	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	218	600	1092	-	-	-
Stage 1	634	-	-	-	-	-
Stage 2	497	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	177	600	1092	-	-	-
Mov Cap-2 Maneuver	177	-	-	-	-	-
Stage 1	514	-	-	-	-	-
Stage 2	497	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.3	2.8	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1092	-	372	-	-
HCM Lane V/C Ratio	0.152	-	0.37	-	-
HCM Control Delay (s)	8.9	0	20.3	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.5	-	1.7	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	1	55	8	3	29	31	330	15	29	327	34
Future Volume (vph)	21	1	55	8	3	29	31	330	15	29	327	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.904			0.902			0.995			0.988	
Flt Protected		0.986			0.990			0.996			0.996	
Satd. Flow (prot)	0	1660	0	0	1663	0	0	1846	0	0	1833	0
Flt Permitted		0.986			0.990			0.996			0.996	
Satd. Flow (perm)	0	1660	0	0	1663	0	0	1846	0	0	1833	0
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		744			411			495			494	
Travel Time (s)		16.9			9.3			9.6			9.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	23	1	60	9	3	32	34	359	16	32	355	37
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	84	0	0	44	0	0	409	0	0	424	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	40.4%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	21	1	55	8	3	29	31	330	15	29	327	34
Future Vol, veh/h	21	1	55	8	3	29	31	330	15	29	327	34
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	23	1	60	9	3	32	34	359	16	32	355	37

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	891	881	374	903	891	367	392	0	0	375	0	0
Stage 1	438	438	-	435	435	-	-	-	-	-	-	-
Stage 2	453	443	-	468	456	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	263	285	672	258	282	678	1167	-	-	1183	-	-
Stage 1	597	579	-	600	580	-	-	-	-	-	-	-
Stage 2	586	576	-	575	568	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	235	265	672	222	262	678	1167	-	-	1183	-	-
Mov Cap-2 Maneuver	235	265	-	222	262	-	-	-	-	-	-	-
Stage 1	575	559	-	578	559	-	-	-	-	-	-	-
Stage 2	535	555	-	505	548	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.1	14	0.7	0.6
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1167	-	-	440	443	1183	-	-
HCM Lane V/C Ratio	0.029	-	-	0.19	0.098	0.027	-	-
HCM Control Delay (s)	8.2	0	-	15.1	14	8.1	0	-
HCM Lane LOS	A	A	-	C	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.7	0.3	0.1	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	29	69	344	36	84	361
Future Volume (vph)	29	69	344	36	84	361
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	100		0	0	
Storage Lanes	1	1		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850	0.987			
Flt Protected	0.950					0.991
Satd. Flow (prot)	1770	1583	1839	0	0	1846
Flt Permitted	0.950					0.991
Satd. Flow (perm)	1770	1583	1839	0	0	1846
Link Speed (mph)	30		30			30
Link Distance (ft)	280		494			398
Travel Time (s)	6.4		11.2			9.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	32	75	374	39	91	392
Shared Lane Traffic (%)						
Lane Group Flow (vph)	32	75	413	0	0	483
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60		60	60	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	57.3%	ICU Level of Service	B
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	2.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	29	69	344	36	84	361
Future Vol, veh/h	29	69	344	36	84	361
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	32	75	374	39	91	392

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	968	394	0	0	413	0
Stage 1	394	-	-	-	-	-
Stage 2	574	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	282	655	-	-	1146	-
Stage 1	681	-	-	-	-	-
Stage 2	563	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	253	655	-	-	1146	-
Mov Cap-2 Maneuver	253	-	-	-	-	-
Stage 1	681	-	-	-	-	-
Stage 2	506	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.2	0	1.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	253	655	1146	-
HCM Lane V/C Ratio	-	-	0.125	0.115	0.08	-
HCM Control Delay (s)	-	-	21.2	11.2	8.4	0
HCM Lane LOS	-	-	C	B	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0.4	0.3	-

Phase I Archaeological Sensitivity Assessment and Survey of the 1115 Lochland Road Development, City of Geneva, Ontario County, New York

Figure 1 Political map showing the location of the APE

Geneva Historical Society Postcard Collection showing MDS 1 (date unknown)

H.A.Z.Ex. Report
June, 2021

Phase I Archaeological Sensitivity Assessment and Survey of the 1115 Lochland Road Development, City of Geneva, Ontario County, New York

– prepared by –

H. A. Z. Ex.

Christopher M. Hazel, RPA (Principal Investigator)
Historical Archaeological Zoological Explorations - H.A.Z.Ex.
510 Hudson St.
Ithaca, New York 14850
Tel. 607/ 793-7949
HAZExplorations.com

– prepared for –

WJCA, Inc.
763 Susquehanna Avenue
Franklin Lakes, New Jersey 07417

June, 2021

MANAGEMENT SUMMARY

SHPO Project Review Number: 21PR02982
Involved State and Federal Agencies: SEQRA, NYSDEC, NYSDHCR, HUD
Phase of Survey: IA assessment & IB survey

Location: rectangular tract at 1115 Lochland Road.
Minor Civil Division: City of Geneva
County: Ontario

Area of Potential Effect (APE): 4.4 hectares / 13 acres
APE Length: 341 meters / 1,119 feet (east-west)
APE Width: 188 meters / 620 feet

ST size (cm), number, & interval of ST: 40 x 40 cm, 186 spaced at 15 meter intervals within wooded and grass covered APE.

USGS 7.5 Minute Quadrangle Map: Geneva South, New York

Number & name of previously identified & tested pre-contact sites identified within the APE: 0.
Number & name of NEW pre-contact sites identified: 0.
Number & name of NEW historic sites identified: 0
Number & name of sites recommended for Phase II/Avoidance: 0
Number of buildings/structures/cemeteries within APE: 6; recent post 1978 pool house (MDS 4) & picnic pavilion (MDS 5), 1930s neo-classical monument (MDS 3), recently renovated late 19th century Italian Renaissance house (MDS 1) and carriage house (MDS 2) and partially intact dock (MDS 6).
Number of previously determined National Register eligible (NRE) or listed (NRL) buildings near APE: Belhurst Castle (NRL), .
Number of identified potentially eligible buildings/structures/cemeteries/district within APE: 1, monument MDS 3

Report Author: Christopher M. Hazel RPA
Date of Report: June, 2021

ABSTRACT

HAZEx conducted a Phase I archaeological assessment and survey for the proposed 1115 Lochland Road proposed development Area of Potential Effect (APE) located in the City of Geneva in Ontario County, New York. The project consists of multi-family residential, hotel and restaurant buildings and support facilities including utilities, access roadways and water management. The Project is permitted under the New York State Environmental Quality Review Act (SEQRA) & the U.S. Department of Housing and Urban Development (HUD). No previously identified pre-contact or historic Sites are located within the APE. The assessment indicates that the Project had a moderate sensitivity to contain pre-contact Sites due to the proximity of previously tested Sites and a high sensitivity to contain historic Sites associated to this circa-1900 homestead and post-1955 American Legion Hall #396. This hall and former homestead, associated carriage house, pool complex, collapsed dock and picnic pavilion were not considered NRE. The neo-classical monument is considered potentially NRE under Criterion C. The NRL Belhurst Castle is within the zone of visual impact of the proposed mixed-use development.

The Phase IA assessment and survey were conducted in the spring of 2021 across the entire 13 acre APE. The Phase IB Survey consisted of 186 subsurface testing excavations spaced at 15 meter intervals along 20 Transects within grass-covered areas except areas of pavement and slope exceeding 20 degrees covering 3 acres. Only recent debris was observed within the area of the APE. Neither pre-contact nor historic artifacts nor Sites were present within the APE. No buried cultural resources will be impacted by the project and no further archaeological work is recommended.

TABLE OF CONTENTS

Appendix A: List of Figures

Appendix B: LIST OF PHOTOGRAPHS

INTRODUCTION

This report details the results of a Phase I Archaeological Sensitivity Assessment and Survey of a proposed mixed use development within the City of Geneva, Ontario County, New York. The document research was conducted by Timothy Abel, William Deever & Chris Hazel in May, 2021 in order to identify any possible previously identified National Register of Historic Places Eligible (NRE) Sites and Site Sensitivity and a Phase IB survey in anticipation of the construction of buildings, access roads, and support facilities. Since this construction will be permitted through SEQRA these investigations must be conducted in compliance with National Parks Service Section 106 & state implementation procedures (New York Archaeology Council 1994; State Historic Preservation Office -HPO- 2005 & 2020) in consultation with the New York State Office of Parks, Recreation and Historic Preservation.

Project Area Description

The 1115 Lochland Road area of potential effect (APE) consists of all areas of ground disturbance. This APE is based on maps provided by WJCA, Inc. dating from May, 2021 and is confined to proposed buildings, roadways, utilities and water management facilities. The Project Area is entirely within the City of Geneva in southeastern Ontario County, in western New York State (Figure 1). The APE consists of tract covering a total of 13 acres across currently grass-covered gentle to steeply sloping lawn & lakeshore. The APE is a rectangular shaped tract with a length of 341 meters and width of 118 meters (Figure 3). The project will result in the removal of all current structural features and vegetation.

BACKGROUND RESEARCH

Topography & Geography

The topography and geography of the APE consists of level uplands of the Ontario Lake Plain (Figure 2). This dissected ground is composed of upland silt overlying bedrock above an escarpment and lakeshore in the eastern APE (Figure 4). According to USGS topographic maps, the APE follows a contour of approximately 450-510 feet above mean sea level (Figure 2). The flora and faunal resources within this portion of the northeastern US covering the APE are within the Canadian-Carolinian Biotic Province and consist of a mixed coniferous-deciduous forest community supporting communities of both varied and plentiful faunal resources during the pre-contact and early historic periods (Cleland 1966).

Drainage

The APE is entirely within upland draining east into Seneca Lake. No wetlands are documented within the APE either on soil surveys or USGS maps (Figures 2 & 4). However a late 20th century manmade pool is located in the central APE.

Climate & Soils

Ontario County has six months of growing season with moderately warm summers and cold winters. Average temperatures vary from 68 to 26 degrees Fahrenheit between the seasons. Precipitation is evenly distributed throughout the year with an annual rainfall of 30 inches (80 cm) and an annual average of 39 inches (92 cm) of snow (Pearson and Kline1958). The soil survey map/aerial photograph (Figure 4, NRCS 2021) that covers the APE indicates that both soil types are upland Schoharie silt clay loam (36) with shallow dark brown Horizon A soils (21 centimeters / 8 inches) and brown-reddish brown Horizon B soils (66 centimeters / 25 inches). These types have no potential for buried Horizon A (Ab) soils throughout the APE (Pearson & Kline 1958).

Landuse and Disturbances

The current land-use within the APE is consistent with a suburban community along secondary transportation routes. The APE is entirely within existing lawn with the exception of 2.3 acre partially wooded and brush-covered slope in the eastern APE down to the lakeshore and an acre of paved parking lots, swimming pool area, sidewalks and driveways surrounding MDS 1 & 2. The eastern APE is also impacted historically by the extant New York Central Railroad The extant late 19th century homestead / mid 20th century for the American Legion recreational facilities (hall, carriage house, pool house, picnic area with pavilion) also cover significant areas (see Results Architectural Resources).

Site File and Non-bibliographical Source Search

There are only two (2) professional archaeological investigations conducted within a mile of the APE currently available on the NYS Cultural Resource Information System (CRIS) and on the archived survey map for Ontario County (OPRHP). These consist of surveys and were completed in anticipation of housing projects for local government permits (Table 1). The survey for the Glass Factory Bay Subdivision northwestern APE identified a historic artifact scatter within MDS at a former glass factory Sites (Abel 2005). A total of three of this variety of Site has been previously identified within a mile radius. These 19th century Sites are all located adjacent to White Springs Brook approximately a half mile south-southwest of the APE (Table 2). They are all currently within housing subdivisions. There is only a single National Register eligible (NRE), listed (NRL) or potentially eligible (PEP) properties within, adjacent or within view shed of the APE, the 1888 restaurant and inn, Belhurst Castle, whose grounds border the APE. There are three inventoried structures within, adjacent or within view shed of the APE including the legion hall (MDS 1) within the APE, the aforementioned Belhurst Castle and the mid-19th century Lochland/Miller house located to the south and north of the APE, respectively.

Table 1: Survey Reports conducted within 1 mile of Project Area.

Number	Name
05SR55545	Stage 1 Archaeological Survey, Glass Factory Bay Subdivision, Phase III, Town of Geneva, Ontario County, New York
08SR58390	Phase I Cultural Resource Investigations for the Proposed High Acres at Seneca Lake Development, Town of Geneva, Ontario County, New York

Table 2: Previously Recorded Sites within 1 mile of the Project Area.

USN	Name	Status
6906.000042	Schermerhorn/Halstead Historic Site	Not Eligible
6906.000056	Stromgren-Harford glass factory Site NYSM 2209	Undetermined
6906.000057	Schultz Glass Factory Site NYSM 2210	Undetermined

Table 3: Previously Recorded NRE and NRL Structures within 1 mile and/or view shed of the APE.

NR Number	Name	Municipality
90NR01989	South Main Street Historic District	Geneva
90NR01982	Belhurst Castle	Geneva
90NR01990	Ashcroft	Geneva
90NR02045	Nester House	Geneva

PRE-CONTACT CULTURAL CONTEXT

The APE is situated in a mile radius area of interest with evidence of pre-contact and historic Native American occupations (Ritchie 1994). The proximity of Seneca Lake and its tributaries and adjacent wetlands would have made the area highly attractive for hunting, fishing and agriculture. A few prehistoric and HNA sites are documented within a 1-mile (1.6 km) radius of the APE (Table 3).

The Ontario Lake Plain region has been occupied by pre-contact peoples since 11,000 years before present. Pre-contact sites representing the Archaic, Woodland and proto-historic Iroquois periods of occupation have been documented along the Seneca River and Seneca Lake in Ontario County. The high and level uplands above the river, lake and their tributaries have been considered as likely locations for pre-contact occupation sites based on investigations by Parker (1922) and several New York

PaleoIndian & Early Archaic (9000-4000 BC)

The archaeology of North America has long established that the earliest society was based on hunting and foraging and was composed of small bands following large herd animals and exploiting seasonal

vegetation. The PaleoIndian lithic toolkit is remarkably similar across North America and can be identified by unique and characteristic components, such as finely chipped tools including the Clovis fluted point (Abel & Fuerst 1999). The beginning of the Archaic is marked by a drying of the climate following the receding of the glacier, the growth of a thick pine forest and the extinction of the Pleistocene mega-fauna. Social groups were still in the form of small, mobile bands, exploiting resources along river and lake shores. The Early Archaic diet became more diverse, as evidenced by a more varied tool kit, suggesting the hunting of smaller game species and more intensive processing of plants. Tool types include small notched and weak-stemmed knives and projectile points made of locally available cherts.

Late Archaic (4000-1000 BC)
By the Late Archaic period, climatic conditions had begun to resemble our modern climate and the forest had become more deciduous. Human populations increased in size and began to exploit a greater variety of resources, with a notably stronger focus on fishing. River and lakeside settlements were larger and more long-term than in the preceding period and small occupation sites are found in upland environments. Settlement patterns suggest seasonal gatherings at lacustrian and riparian sites in the spring and summer, with dispersal of smaller-sized bands to wooded uplands in fall and winter.

Woodland (1000 BC-AD 1600)
Agriculture, the use of the bow and arrow and ceramics, and more extensive, longer-duration settlements characterize the Woodland Periods. The cultivation of maize represents the beginnings of agriculture in the region, with beans and squash coming later. Shared tool and agricultural technologies across eastern North America during this period, along with shared burial traits, strongly suggest expanded trade and cultural connections among eastern Woodland peoples. Social organization also became more elaborate, reflected in a greater dependence on communal agriculture.

In the Late Woodland period (AD 800-1600), the joint cultivation of maize, beans and squash was ubiquitous and settlements included large, palisaded villages that were occupied year-round. Characteristic traits of Iroquois culture begin to appear in the archaeological record around AD 1300, although a smooth development of Iroquois culture from earlier in the Late Woodland period has also been postulated (Ritchie 1994). If there is a distinct Iroquois sub-period, it is differentiated from the earlier Late Woodland period by ceramic styles, village size, greater sedentism, and a preference for defensible sites on higher ground. State Archaeologist Arthur Parker has documented a Woodland village and stockade (NYSM 4348) approximately 3.5 km north of the APE (Parker 1922).

PRE-CONTACT ARCHAEOLOGICAL SENSITIVITY ASSESSMENT

Only one prehistoric Site has been previously identified within the city and not within a mile (1.6 km) of the APE. This Site is actually a historic Seneca village identified by Follett (1958) as Pre-emption Road Site RMSC-F342. The distance to water—Seneca Lake—and proximity to the above-referenced Site indicate that the APE lies within an area of moderate prehistoric sensitivity.

Historic Context (CULTURAL BACKGROUND)

Prior to the American Revolution, the project area fell within a large territory of western New York that was acknowledged by Europeans to belong to the Native American peoples known as the Iroquois, Haudenosaunee, or Six Nations, and specifically to the Seneca Nation of the Iroquois. According to Morgan (1962), the boundary between the Senecas and the Cayuga nation to the east of them ran south from Sodus Bay and just four miles east of the outlet of the Seneca River from Seneca Lake. Therefore, the Town and City of Geneva, and the Seneca village that predated it, Kanadesaga—more correctly pronounced “Ga-*nun*-da-sa-ga” according to Morgan—are close to the extreme eastern edge of Seneca territory, though Morgan didn’t record any specific villages in the immediate area.

The name “Ga-nun-da-sa-ga” means “New Settlement Village” (Morgan 1962). It was apparently established only after the destruction of another Seneca village, Ganondagan, which was located about 20 miles west of Geneva (Tall 1993). That village was reputed to be the Senecas’ “capital” during the 16th Century, until its destruction by the French in 1687 (Tall 1993). Kanadesaga was considered to be a replacement settlement for Ganondagan, and was “the chief Seneca town” at the time of the Sullivan Campaign (McIntosh 1878). When a detachment of the American army under General Sullivan reached

Kanadesaga in September, 1789, they found and destroyed a village of 50 houses along with cultivated fields and a large orchard (Ladd 2003).

A mound is all that remains (on the surface) of the known site of Kanadesaga; it is located along Castle Road in Geneva just east of the New York State Agricultural Experiment Station. In 1888, almost 100 years after Kanadesaga was destroyed, Seneca chief and Civil War general Ely Parker wrote to the governor of New York asking that the mound be preserved by having it purchased by the State Agricultural Experiment Station (Tall 1993). Unfortunately, the appeal was unsuccessful.

The campaigns into "Iroquoia" under General Sullivan in 1779 led directly to American settlement of the region. After the Revolutionary War, the Treaty of Fort Stanwix, signed by the Six Nations in 1784, ceded most of their territory to the new federal government (Wallace 1972). The settlement of this portion of the state, including Ontario County, was delayed due to a dispute between Massachusetts and New York. The claims of Massachusetts were settled by treaty in 1786, giving that state the right to pre-empt and sell land formerly controlled by the Seneca, which it did in 1788 to Oliver Phelps and Nathaniel Gorham. This "Phelps and Gorham Purchase" involved further negotiations with the Iroquois, some of which were conducted by Oliver Phelps himself at the site of Kanadesaga (McIntosh 1878). The town had evidently been reoccupied by the Indians following its burning during the Sullivan Campaign. Impressed with the beauty of the country and its potential productivity, Phelps wrote: "This place [Kanadesaga/Geneva] is situated at the foot of Seneca Lake, on a beautiful hill which overlooks the country around it, and gives a fine prospect of the whole lake. Here we propose building the city, as there is a water-carriage to Schenectady, with only two carrying-places of one mile each" (McIntosh 1878). The Phelps and Gorham Purchase ended Iroquois title to the land and opened Ontario County to large-scale European settlement (McIntosh 1878).

Formed in 1789, Ontario County originally comprised the entire western portion of New York State, but was eventually divided into 14 counties (Barber 1851; Dewitt 1792; Ladd 2003). In 1793, the village of Geneva was founded by Charles Williamson, a land agent for a group of English investors. The village was settled and grew rapidly, and was incorporated as a city in 1806. At that time, Geneva was the largest settlement in central and western New York, due to its significance as a trading center (Ladd 2003, Turner 1976).

After the Erie Canal opened in 1825, cities along its corridor such as Rochester and Syracuse outgrew Geneva, but Geneva prospered as well, especially after the Cayuga-Seneca Canal was completed a few years later. This linked Geneva to the Erie Canal, and allowed the city to export its agricultural products (City of Geneva website 2006). At that time agriculture was the basis of the area's economy. This includes the Slosson farm which extended east from the farmstead on Snell Road across the APE down to the lake. But after the arrival of rail transportation in the 1840s, new commercial ventures really developed, such as quarrying for sand and limestone north of the City and the manufacture of optical equipment (Oakes 1958, City of Geneva website 2006). The numerous glass factory Sites located within a mile of the APE were compliments to the latter in the region, taking advantage of the high quality silicate mines in Phelps and Geneva (Table 2).

The region's strong academic tradition started as far back as 1796, when the Geneva Academy was founded (Ladd 2003). Incorporated in 1825, it later became Hobart College. In 1882, New York State purchased a farm from Nehemiah Denton, and established the New York State Agricultural Experiment Station, which later became a part of Cornell University (Ladd 2003). Both of these are located northwest of the APE

Recreation has remained a dominate part of the City's economy including the vicinity of the APE (Figures 5-10). This has included large vacation homes for large industrialists and elites. Numerous parks, golf courses, restaurants, inns and casinos (Belhurst Castle) popped up along Lochland Road since the late 19th century. Geneva recreation is evident from structures such as long pier downtown and the numerous piers and docks and boathouses along the west shore of the Lake below all of the "Big" houses serving seasonal occupation.

The Winnek Hall #356 American Foreign Legion has served as a center for recreation for veterans and the greater Geneva community since its relocation to the former Slosson homestead from downtown Geneva. This hall was named after the World War I soldier Lieutenant Edward Winnek who perished while leading his troops at the Hidenburg Line in 1918. The increased membership after World War II. resulted in the relocation to the APE and a series of significant alterations to the Slosson's Shady mansion. The alterations have included single-story additions for a restaurant, dance hall, and banquet hall. The Hall has hosted numerous fireworks, dances and fundraisers. Features within the yard include an extensive picnic area, boat dock, swimming pool, and pool house / snack stand. Other older structures in the APE were also repurposed for the American Legion including the conversion of the carriage house into a recreation center, and an ornamental pavilion into a war memorial with accompanying US Army M1 Howitzer artillery piece.

The importance of recreation is in part a result of easier access to Seneca Lake along the canal and later creations. Greatest among these is the Pennsylvania Division of the New York Central Railroad built in the mid-19th century from the main line south to the west bank of the Lake. This line runs from Geneva down to the headwaters of the Susquehanna at Jersey Shore Junction connecting western Pennsylvania coal and steel industry with Lake Ontario. The APE lies halfway between the Geneva and Billsboro Stations on this line.

Phelps' trip to the region in the 18th century also required an initial survey of a base-line for their new properties. This baseline became Lochland Road and State Route 14. The principal state highway heading south from Geneva, Lochland Road (NYS Route 14) has long been a commercial corridor and appears on the same alignment from the early 19th century (Burr 1829). The APE borders the east side of this road.

Table 4: Summary of Map Documented Structures - MDS (Figures 2-11 & Photographs 1-14)

MDS	1859 Beers	1874 Pomeroy	1904 Century	1938 aerial	1954 USGS	1963 aerial	1978 USGS	1995 aerial	current condition	Photos
1	-	-	H L Slosson "shadyside"	+	+	+	+	+	renovated Eclectic Italian Renaissance house	1-3
2	-	-	+	+	-	+	+	+	renovated carriage house	4, 5
3	-	-	-	+	-	-		+	monument	6-10
4	-	-	-	-	-	-		+	pool & house	11,12
5	-	-	-	-	-	-		-	pavilion	4,13
6	-	-	+	+	-	+		+	collapsed dock	14

Key: - not present, + present

The previously mentioned historic research of maps dating from 1829 to 2021 was conducted in order to identify any historic map documented structures –MDS- in the APE. Each is described below. Figures depicting representative MDS are presented in Appendix B (Figures 5-11).

The Burr 1829, Walling 1852, Beers 1859 and Pomeroy 1874 maps of the county have limited details specific to the APE (Figures 5 & 6). However, the NYCC Railroad and Lochland Road appears to be at their current alignment. The APE also appears to be within farmland owned by the Slosson family.

The New Century 1908 (Figure 7) maps of the Town clearly shows Lochland Road and the mansion and carriage houses of H L Slosson's "Shadyside" located in the southwest APE. The mansion appears to have the massed plan typical of the Eclectic Italian Renaissance style (McAlester 2013).

The USGS 1904 and 1954 *Geneva South, New York* maps and 1938 and 1963 aerials (Figures 8 & 9) of the region show Lochland Road and a house, barn, outbuilding and dock at the location of the MDS 1-3 & 6 located in the APE.

USGS 1978 *Geneva South, New York* map and 1995 and 2002 *Google-Earth* aerials (Figures 10 & 11) of the region show Lochland Road and a house, barn, outbuilding, pool and pool house and dock at the location of the MDS 1-4 & 6 located in the APE. MDS 6 appears to be just piling and joists without decking. MDS 5 doesn't appear on aerial photos until after 2010.

HISTORIC ARCHAEOLOGICAL SENSITIVITY ASSESSMENT

Three historic sites and four NRL properties are identified within 1.6 km of the project area (see Tables 2 & 3 and Figures 5-10). All of Sites are 19th century historic artifact scatters associated to demolished MDS from either a farmstead or glass factory. All of the properties are districts or individual examples of the aforementioned "Big" houses.

Three map documented structures (MDS) dating from before 1971 were identified within the APE (Table 4). The APE lies within an area of high historic sensitivity based on the following factors: 1) its location along the highway (Route 14); 2) the existence of National Register Listed sites in the Geneva City around the APE and 3) the presence of these historic map documented structures within the APE and the proximity to the Belhurst Castle NRL property (Table 3).

Project Walkover

A walkover was conducted over 100% of the project area. Current environmental conditions, vegetation, drainages, evidence of disturbance or significant landscaping alterations and recent features were noted. Photographs were taken and sketch maps made of features and landforms thought significant (Photographs 1-18).

ARCHAEOLOGIAL SURVEY METHODOLOGY

Subsurface test excavations (ST) were excavated across the 10 acres of wooded and the grass covered lawns in upland landforms across the majority of the APE (Photographs 6, 10-18). ST were excavated on twenty Transects (Tr). Both ST and Tr were and spaced at 15 meter (50 feet) intervals (Figure 3, Table 5). The ST were numbered sequentially from north-to-south and Transects were numbered from east-to-west across the APE (Figure 4). No ST were excavated in paved (1.5 acres) or steeply sloping (1.5 acres) portions of the APE.

ST were excavated using standard methods: soils were excavated in natural strata down at least 10 centimeters into culturally sterile subsoil or refusal from rock. All soils were screened through 1/4" hardware cloth; and strata characteristics were either noted or recorded on profile drawings and photographs. A total of 10.4 cubic meters of soil was processed in this manner through ST excavations.

Artifact analysis was conducted within the field and consisted of dry brushing or washing dirt from the surface of all artifacts. Upon inspection no historic or pre-contact artifacts were observed within the APE.

ARCHAEOLOGICAL SURVEY RESULTS

The vegetation and geography within the APE is described above (Environmental Setting). ST were not excavated across areas of pavement in the central quarter acre pool complex and southwestern one and half acre parking lot portions of the APE. These ST could not be excavated through the existing concrete pads and asphalt. Neither of these locations are historic structure locations (MDS). ST were also not excavated in the eastern one and half acre portion of the APE down to the lakeshore due to the extreme (>20 degree) slope and presence of NYCRR bed (Figure 3).

Survey Summary

A total of 186 shovel test locations were examined along 20 Transects within the APE (Figure 3, Table 5). All ST within the APE revealed varied shades of dark brown and brown silt and or sandy loams overlying

strong brown silt or gravelly soils conforming to the description within the USDA Soil Survey (NRCS 2021). Exceptions included a series of ST containing a buried thin (5 centimeters) strata of compact gravel and macadam along the former dock access road running from the mansion (MDS 1) down to the dock (MDS 6). The average depth of soils overlying subsoil was 26 centimeters below the surface (cmbs) into subsoil. The average depth of ST was 37 cmbs (Table 5).

Cultural Resources
Settlement patterns within the City are evident within the APE from the pre-1971 documented structures and associated yards a mile radius of the APE from maps (Figures 2-11; Photographs 1-4). The 6 MDS are extant circa-1900 mansion, carriage house, neo-classical pavilion and and dock and the circa-1970 pool complex and circa-2000 picnic pavilion and playground.

The land surrounding the APE is within maintained lawns with patches of hardwoods from the late 19th century South Main Street community up to the present day forming part of an elite community of extravagant houses positioned atop the northwestern bluffs of Seneca Lake. The eastern edge of the APE is an active railroad and collapsing circa 1900 dock at the base of slopes at the lakeshore.

Archaeological Resources
The survey of the APE identified no isolated or artifact scatters across the 13 acres within ST and the entire APE. ST documented recent plastic drinks containers, beer bottles and aluminum cans, and styrofoam scattered diffusely across the grass, flower, and tree covered APE. No historic or pre-contact artifacts were observed in ST as noted in Table 3. ST revealed a buried gravel and macadam path leading from MDS 1 down to a silted-in stair way to the lakeshore. This path is visible on Aerials from 1938 & 1963 (Figures 8 &10).

Architectural Resources
Inspection of the APE revealed four historic structures predating 1971 within the tract. The most prominent structural feature within the APE is the Legion Hall of Winnek Post #396 at MDS 1. This impressive structure is the renovated 1900 three-story wood frame Italian Renaissance-style “Shadyside” mansion owned by H L Slosson (Photographs 1-3). The structure is a simple hipped asphalt shingled roof with square tower. Other stylistic features include stained glass dormer over a rear entry, wrap-around porch and covered side entry supported by Tuscan columns. However, several post-1955 alterations have occurred to the structure (coverpage). The eaves, window frames and all windows and siding have been replaced with a mid-20th century vinyl and aluminum. The four faces of the structure have been altered in the late 20th century (circa 1970s) by the addition of new doors and a ramp on the north face, a one and a half story banquet hall and walk-in visible from in the street face, a restaurant dining room and kitchen on the rear and south face. These are evident from comparisons with a mid-20th century (1960?) postcard of the *Winnek #396 American Legion Geneva NY* on file at the Geneva Historical Society (coverpage).

The mansion is paired with a single gabled two-story wood frame carriage house (MDS 2). The only unusual features of this structure are a semi-circular attic window on the street face and shingle-sided gables (Photographs 4 & 5). The roof and windows have recently been replaced with modern style metal and vinyl, respectively. The wooden carriage double doors and siding have been maintained from their circa-1900 date of construction.

A wooden framed and metal roofed pavilion (8 x 3 meters) is present in the northwestern APE at MDS 3. This “Parthenon” inspired neo-classical structure is composed of two rows of four Corinthian-style wooden columns supporting a single gabled metal roof (Photographs 6-8). These columns rest directly on a concrete dias surrounded by a single contiguous concrete step. The floor of the monument contains numerous bronze plaques dedicated to individual veterans from the American Legion (Photograph 9). This small structure appears as early as 1938 and matches the Slosson Italian Renaissance mansion. The plaques date from the early 20th century start of the Legion up to the present day.

The remains of a circa 1900 dock and abutment is present at the location of the MDS 6 with a terminus post quem (TPQ) of 1904. The former consists of two rows of piles connected by two joists (Photograph 14). The southern-most joist also supports rebar and concrete from a former sidewalk that extended down to the lake. No decking and only fragments of the sidewalk remain though protruding fasteners attests to their former presence. The abutment is a loose construction of small field stone along the sides filled with larger gravels in the middle. This is level with the adjacent railroad bed. No footers or other evidence of foundations associated to a boathouse are present along the lakeshore in the vicinity of the APE.

The other two structures within the APE are a wood frame and metal roofed picnic pavilion (MDS 5) dating to the 2010s and a concrete pool and cement block pool house and snack bar (MDS 4) dating to the mid 1970s (Photographs 6, 11-13). Smaller structural features within the APE include a recent play ground, an ornamental howitzer on a concrete base and concrete and metal post barbeque grills dating to the past 50 years or less. The APE is surrounded by a 2 meter tall metal fence and a field stone entry gate dating to the 1955 renovations to the property (Photographs 5, 15-18).

Though the American Legion has served and continues to serve their community through fundraisers and events over the past 66 years, this property is not directly connected with significant historical events or persons. Therefore no aspect of this property is NRE under Criterion A or B. Considering Criterion C; all of these structures (MDS 1-6) are in good repair (i.e. integrity of location) with the exception of the collapsing dock (MDS6). However, the integrity of form of the five intact structures within the APE is varied. The numerous late 20th century alterations to the mansion (MDS 1) suggests that it is no longer representative of a historical style (non- NRE). The carriage house (MDS 2) maintains its significant features. However this structure is altered and a non-specific vernacular style and probably not NRE. **The monument (MDS 3) with its preserved wooded columns, pediments and cornices is potentially NRE as a representation of the Italian Renaissance style**. The post-1971 pool complex (MDS 4) and picnic pavilion (MDS 5) are too young to be considered NRE.

RECOMMENDATIONS

This report has detailed the results of a Phase IA and IB Archaeological Sensitivity Assessment and Survey of the proposed 1115 Lochland Road Project within the City of Geneva, Ontario County, New York, for WJCA, Inc. of Franklin Lakes, New Jersey. The assessment and survey were conducted in anticipation of possible future construction of a mixed use development.

Subsurface testing covering 13 acres was conducted across the entire tract surrounding and including the APE. This Survey identified NO artifacts or features associated to cultural resources. No buried traces of midden or other features associated to Map Documented Structures (MDS) nor new potential NRE properties nor portions of archaeological Sites likely to yield additional important information were identified within the APE. No further archaeological investigations are recommended. The Shadyside mansion, carriage house, monument, and dock were all considered for their potential to be NRE. Only the monument (MDS 3) is considered potentially NRE under Criterion C representing the neo-classical Italian Renaissance style.

REFERENCES CITED

Abel, Timothy
2005 *Stage 1 Archaeological Survey Glass Factory Bay Subdivision Phase III Town of Geneva, Ontario*. Unpublished manuscript on file at OPRHP, Peebles Island. NY.

Abel, Timothy & David N. Fuerst
1999 Prehistory of the St. Lawrence Headwaters Region. *Archaeology of Eastern North America* Vol. 27: 1-54.

Beauchamp, William
1900 "The Aboriginal Occupation of New York." *New York State Museum, Bulletin* 32, Vol. 7. New York State Museum, Albany.

Beers, David G.
1859 *Atlas of Ontario County, New York*. W. FW Beers, New York.

Burr, David
1829 *Map of Ontario County, New York.* Burr Pub., New York.

Century Map Company (CMC)
1904 *New Century Atlas of Ontario County, New York.* Lippencott & Co., Philadelphia.

Cleland, Charles E.
1966 *The Prehistoric Animal Ecology and Ethnozoology of the Upper Great Lakes Region*. Anthropological Papers 29. Museum of Anthropology, University of Michigan, Ann Arbor.

Dawson, A. R. Z.
1859 *Map of Ontario County, New* York. T.D. Peck & S. Willard, Philadelphia.

DeWitt, Simeon
1792 *Map of Military District*. Surveyor General of New York State, Albany.

Follett, Harrison C
1956 *Archaeology of the Counties of Monroe, Ontario, Livingston and Genesee, New York.* Unpublished manuscript on file at the Rochester Museum of Science and Culture Research Division, Rochester.

Geneva, City of (Website)
2006 "History of Geneva, New York". Manuscript on file at the *www.Geneva.NY.US/* (2006 website).

Isachsen, Y. W., E. Landing, J. M. Lauber, L. V. Rickard & W. B. Rogers
2000 *Geology of New York, a Simplified Account*. New York State Museum Educational Leaflet 28, New York State Museum, Albany.

Mason, Ronald J.
2002 *Great Lakes Archaeology*. Blackburn Press, Caldwell, New Jersey.

Morgan, Louis Henry
1962 *League of the Iroquois*. Corinth Books, New York.

McAlester, Virginia S
2014 *A Field Guide to American Houses.* Alfred A. Knopf, New York.

McIntosh, W. H.
1878 "History of Ontario County, New York". Manuscript on file at the *USGenNet.org /USA/NY/County/Ontario* (2006 website).

Natural Resources Conservation Service (NRCS)
2021 *Web Soil Survey, Ontario County, New York./websoilsurvey.sc.egov.usda.gov* USDA, Washington.

New York Archaeological Council (NYAC)
1994 *Standards for Cultural Resource Investigations and the Curation of Archaeological Collections in New York State*. New York Office of Parks, Recreation and Historic Preservation, Albany.

New York State Historic Preservation Office (SHPO)
2005 *NYSHPO Phase I Archaeological Report Format Requirements*. Manuscript published by the New York Historic Preservation Bureau, Waterford, New York.

Nichols, Beach
1874 *Atlas of Ontario County, New York*. Pomeroy, Whitman & Co., Philadelphia.

Parker, Arthur C.
1922 *The archaeological survey of New York*. New York State Museum Bulletin No. 237-238. New York State Museum, Albany.

Pearson, C. S. and M. G. Cline
1986 *Soil Survey of Ontario and Yates County, New York*. USDA, Washington, D.C.

Ritchie, William A.
1994 *The Archaeology of New York State.* Revised Edition. Purple Mountain Press, Fleischmans, New York.

Tall, Deborah
1993 *From Where We Stand: Recovering a Sense of Place*. Alfred A. Knopf, New York, NY.

Turner, Orsamus
1976 *History of the Pioneer Settlement of Phelps & Gorham's Purchase, and Morris' Reserve.* James Brunner, Geneseo, New York. [Reprint of 1851 ed.]

U. S. Geological Survey (USGS)
1902 *Geneva, New York 15' Topographical Quadrangle Map*. U. S. Government Printing Office, Washington D.C.
1943 *South Geneva, New York 15' Topographical Quadrangle Map*. U. S. Government Printing Office, Washington D.C.
1978 *South Geneva, New York 15' Topographical Quadrangle Map*. U. S. Government Printing Office, Washington D.C.

Wallace, Anthony F. C.
1969 *The Death and Rebirth of the Seneca*. Vintage Books, New York, NY.

Walling, H. F.
1852 *Map of Ontario County, New York*. J.E. Gillette, Philadelphia.

Appendix A: FIGURES

Figure 2: APE on *Geneva South, New York* USGS Map.

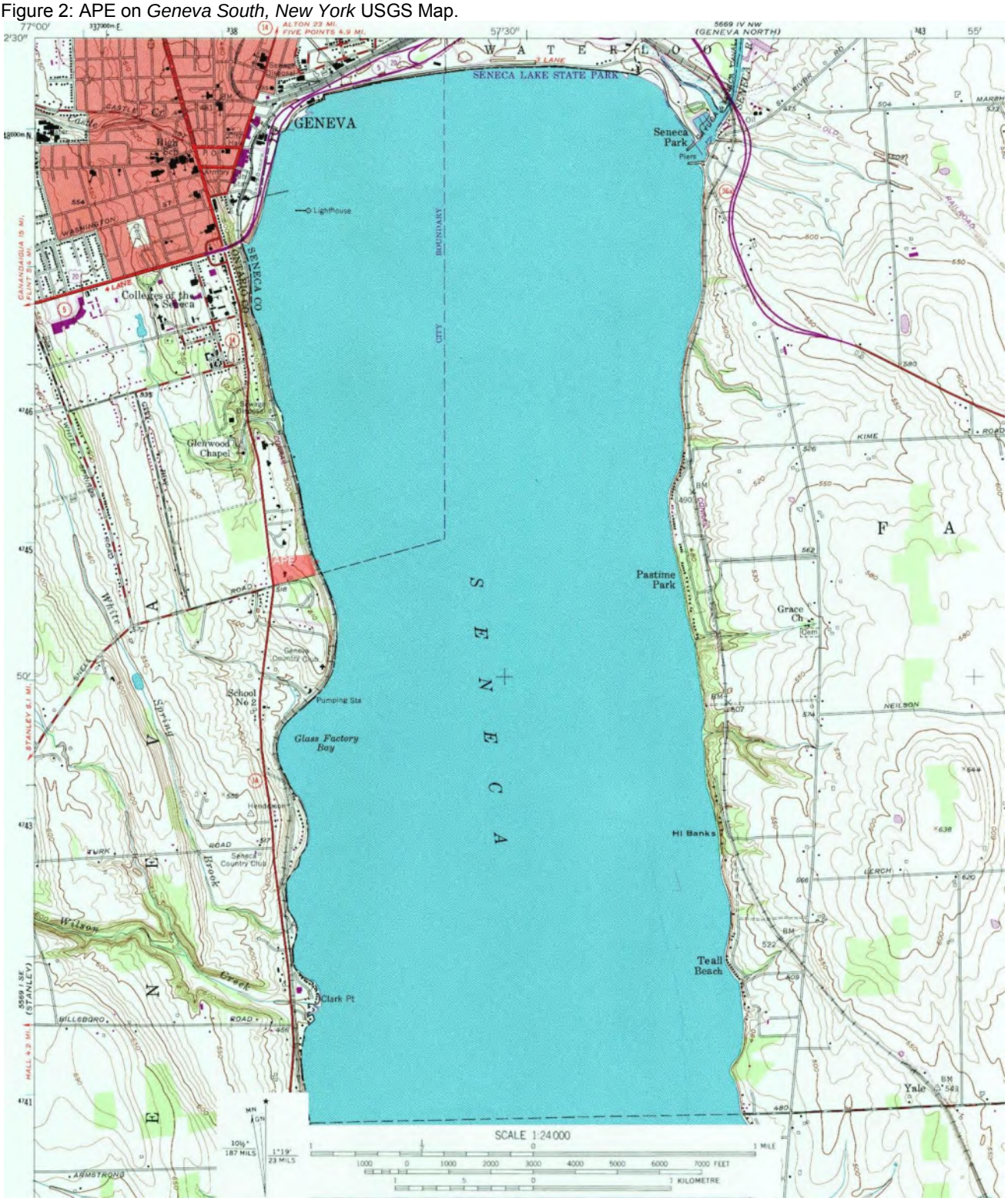


Figure 3: Plan of APE showing Structures, ST and photo locations.

Figure 4: NRCS 2021 Soil Survey of Ontario County, New York showing the APE.

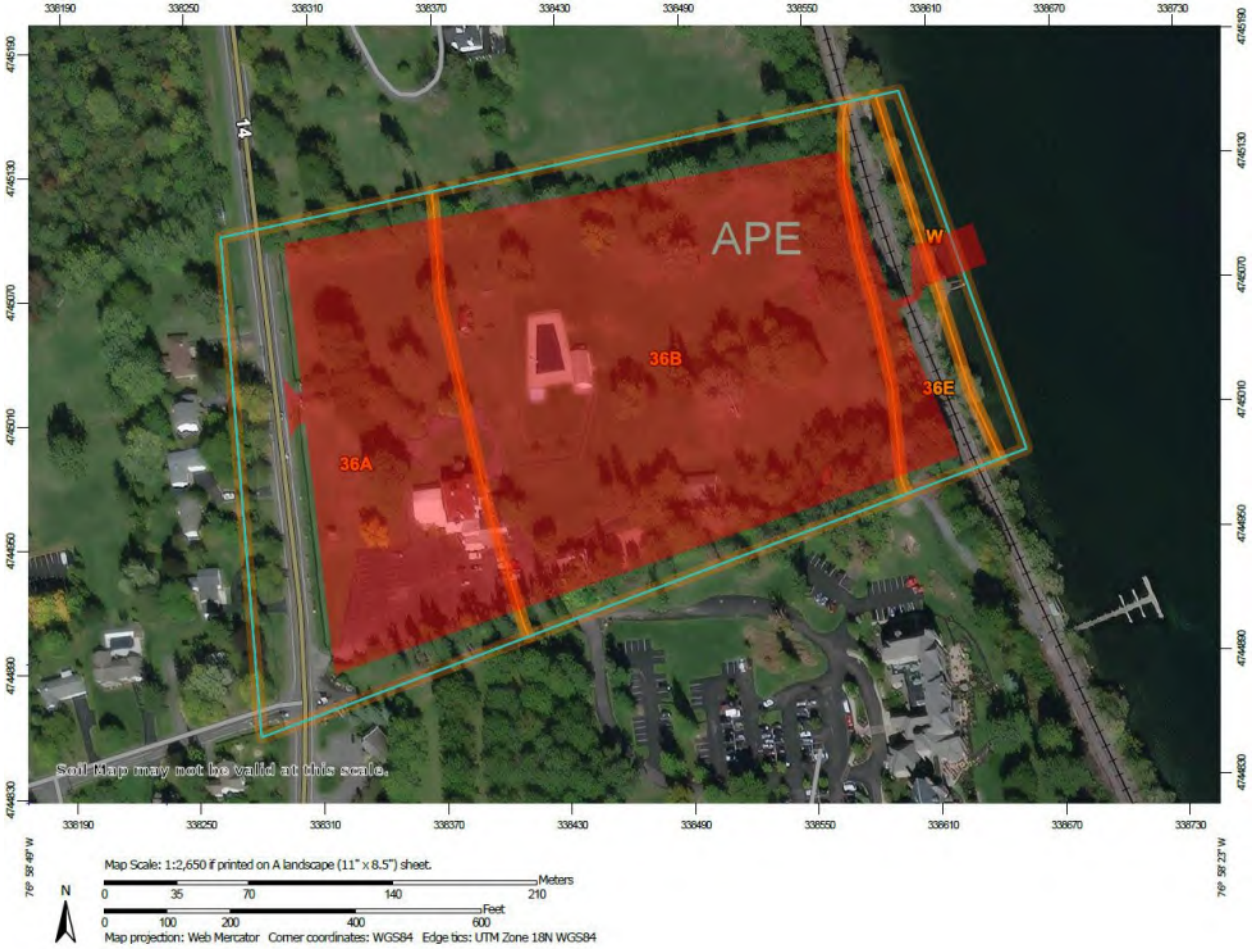
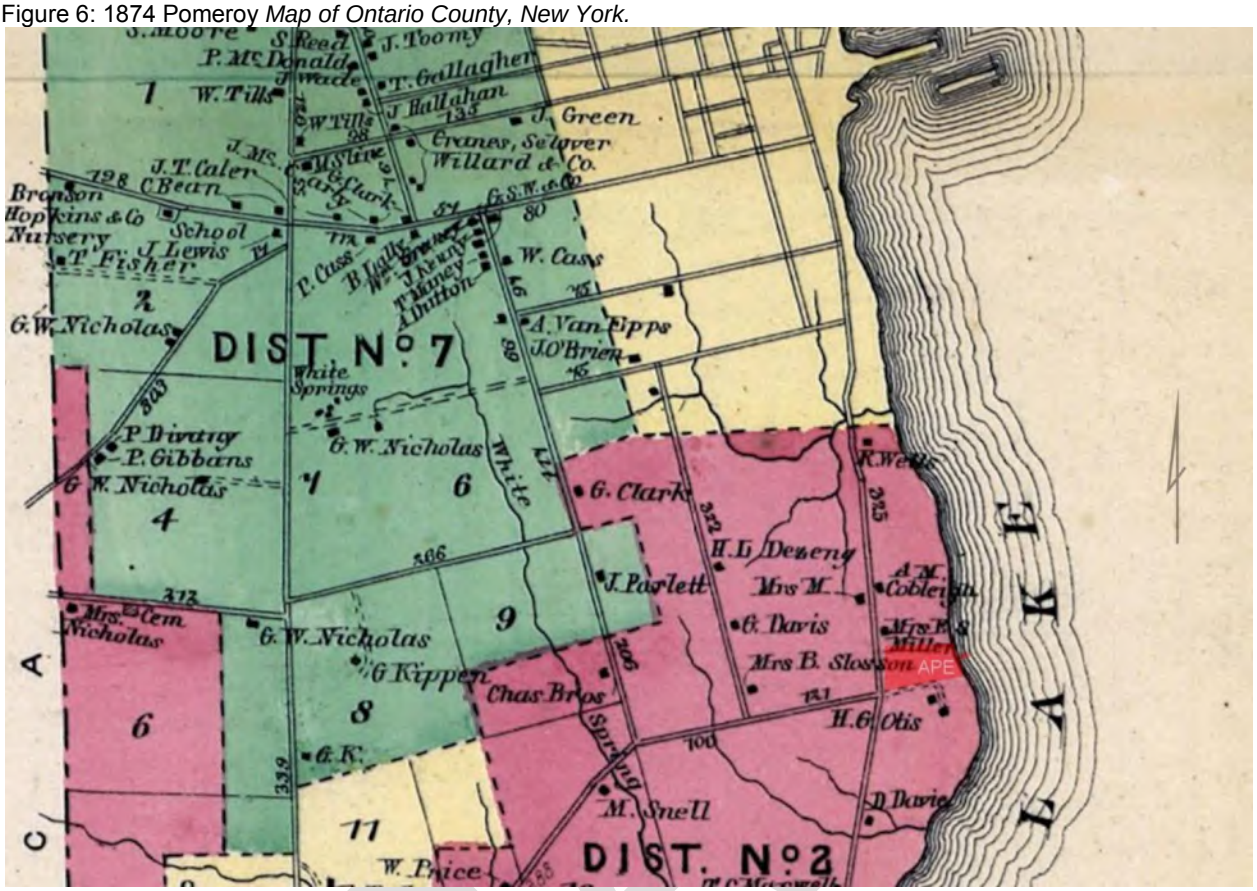


Figure 5: 1859 Beers *Map of Ontario County, New York.*

Figure 6: 1874 Pomeroy *Map of Ontario County, New York.*



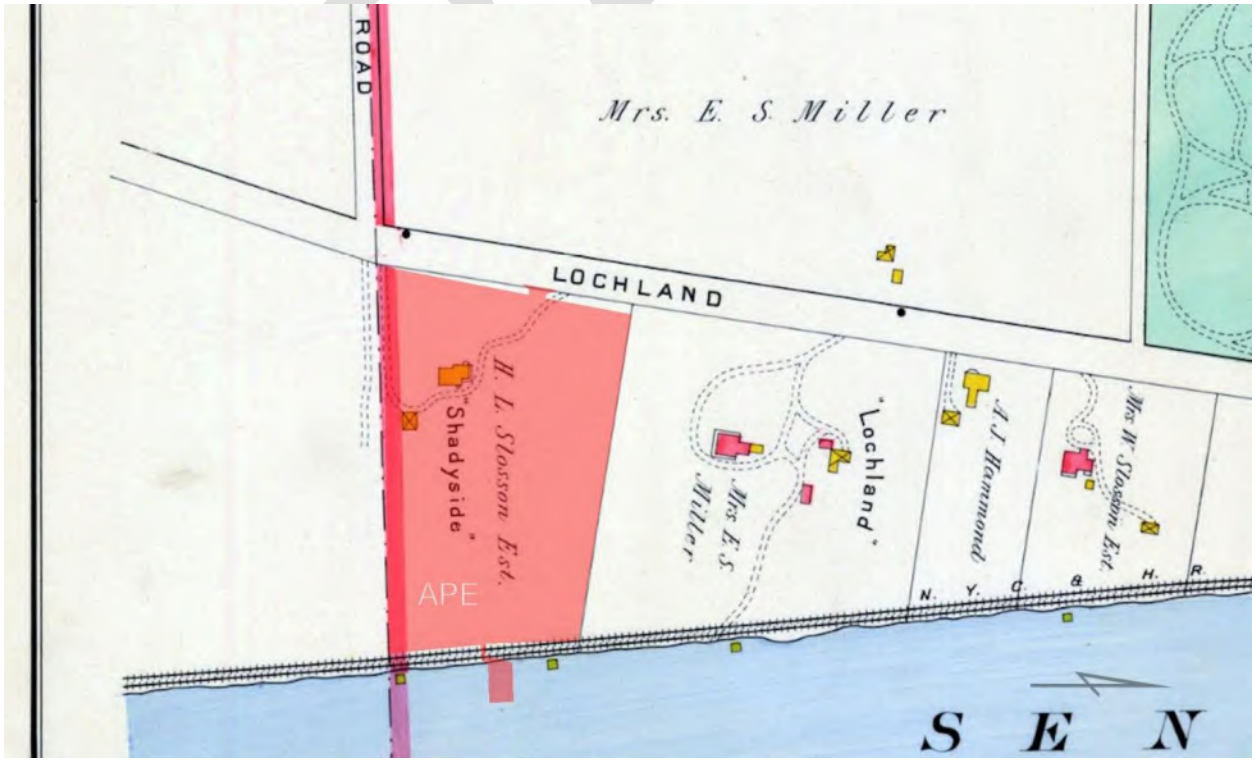


Figure 7: 1904 New Century *Atlas of Ontario County, New York.*

Figure 8: APE on 1938 *Aerial of Ontario County, New York.*

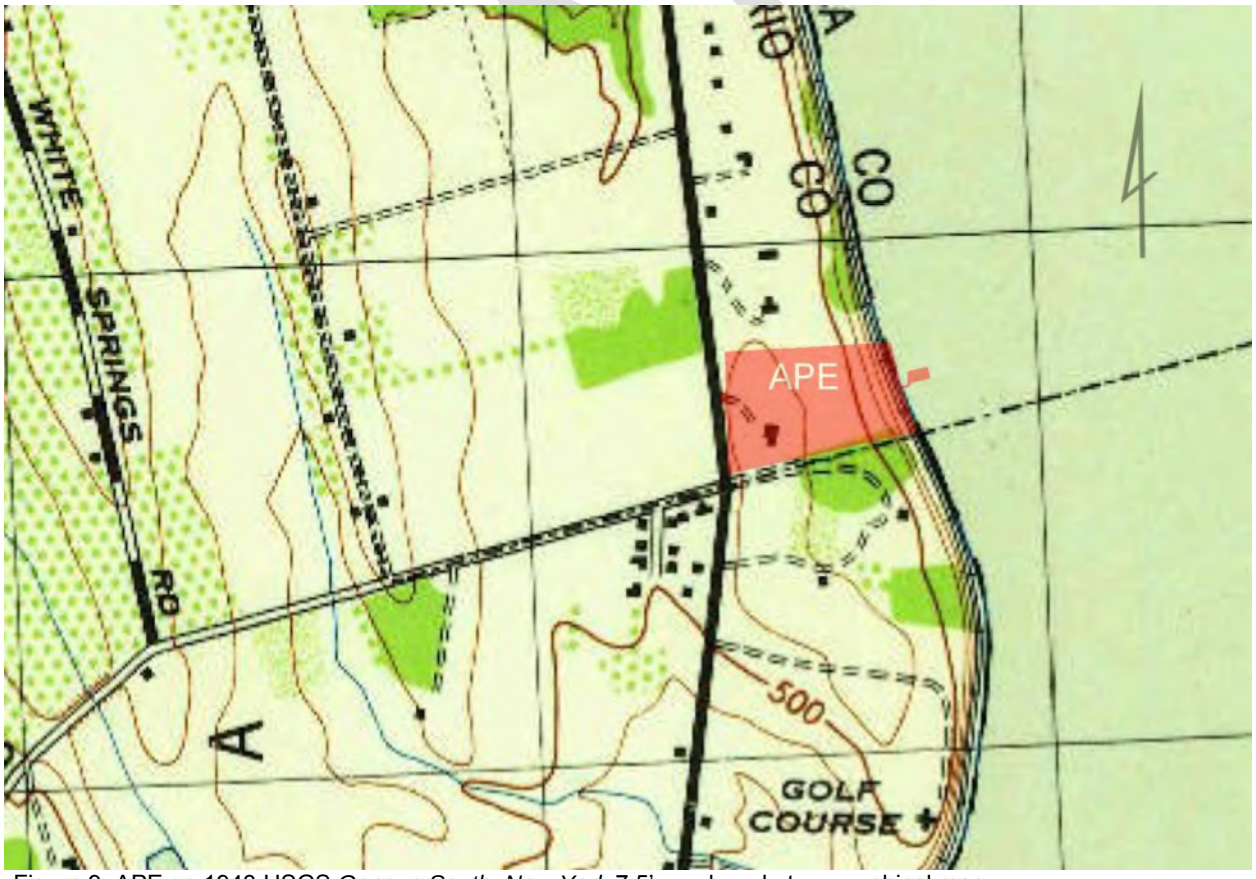


Figure 9: APE on 1943 USGS *Geneva South, New York* 7.5' quadrangle topographical map.

Figure 10: APE on 1963 *Aerial view of Ontario County, New York.*

Figure 11 *Google-earth* Aerial view north of the **APE** 1995.

Appendix B: PHOTOGRAPHS 1-18 (MAY & JUNE 2021)

Photograph 1: Photograph 1 Street face of Legion Hall MDS1.

Photograph 2 View north of Legion Hall MDS 1 and parking lot.

Photograph 3 Northeast oblique view of Legion Hall MDS 1 and driveway.

Photograph 4 Street face of carriage house MDS 2.

Photograph 5 Northeast oblique view of carriage house MDS 2 and playground.

Photograph 6 View north of monument MDS3 from central APE.

Photograph 7 Street face of monument MDS 3.

Photograph 8 View south of ceiling of monument MDS3.

Photograph 9 View north of commemorative plagues within MDS 3.

Photograph 10 View north of ornamental howitzer.

Photograph 11 Street face of pool complex MDS 4.

Photograph 12 North view of central APE and pool complex MDS4.

Photograph 13 View west of southern APE and picnic pavilion MDS 5.

Photograph 14 Northeast view of collapsed dock MDS 6.

Photograph 15 View northwest of western APE and entry gate.

Photograph 16 South view of sign in southwestern APE.

Photograph 17 Southeast view of metal fencing surrounding the APE with Belhurst Castle in the background.

Photograph 18 View west of picnic area and overgrown pathway in east-central APE.

Appendix C - Table 5: Subsurface Test Inventory.

Transect	ST	Horizon A depth (cmbs)	Horizon A soil/artifacts	Horizon B depth (cmbs)	Horizon B soil
1	10	24	Br SiLo	34	StBr SiLo
1	11	26	Br SiLo	36	StBr SiLo
2	7	21	Br SiLo Grv	31	StBr SiLo
2	**8**	**24**	**Br SiLo styrofoam Asp**	**34**	**StBr SiLo**
2	9	20	Br SiLo	30	StBr SiLo
2	10	30	Br SiLo	40	StBr SiLo
2	11	29	Br SiLo Grv	39	StBr SiLo
3	1	25	Br SiLo	35	StBr SiLo
3	2	24	Br SiLo	34	StBr SiLo
3	3	25	Br SiLo	35	StBr SiLo
3	4	27	Br SiLo	37	StBr SiLo
3	5	26	Br SiLo	36	StBr SiLo
3	6	30	Br SiLo	40	StBr SiLo
3	**7**	**25**	**Br SiLo plastic**	**35**	**StBr SiLo**
3	8	24	Br SiLo	34	StBr SiLo
3	**9**	**10**	**Br SiLo Asp**	**20**	**StBr SiLo**
3	10	30	Br SiLo	40	StBr SiLo
3	11	20	Br SiLo Grv	30	StBr SiLo
4	1	29	Br SiLo	39	StBr SiLo
4	2	28	Br SiLo roots	38	StBr SiLo
4	3	28	Br SiLo	38	StBr SiLo
4	4	30	Br ClLo	40	StBr SiLo
4	5	26	Br SiLo	36	StBr SiLo
4	6	29	Br SiLo	39	StBr SiLo
4	7	26	Br SiLo	36	StBr SiLo
4	8	23	Br SiLo	33	StBr SiLo
4	9	20	Br SiLo	30	StBr SiLo
4	**10**	**22**	**Br SiLo Asp**	**32**	**StBr SiLo**
4	11	10	Br SiLo Grv	20	StBr SiLo
5	1	25	Br SiLo	35	StBr SiLo
5	2	24	Br SiLo	34	StBr SiLo
5	3	25	Br SiLo	35	StBr SiLo
5	4	30	Br SiLo	40	StBr SiLo
5	5	29	Br SiLo	39	StBr SiLo
5	**6**	**26**	**Br SiLo bamd-aid**	**36**	**StBr SiLo**
5	7	27	Br SiLo	37	StBr SiLo
5	**8**	**30**	**Br SiLo aluminum can**	**40**	**StBr SiLo**
5	9	25	Br SiLo	35	StBr SiLo
5	**10**	**23**	**Br SiLo Asp**	**33**	**StBr SiLo**
5	11	20	Br SiLo	30	StBr SiLo
6	1	28	Br SiLo	38	StBr SiLo
6	2	29	Br SiLo	39	StBr SiLo
6	3	28	Br SiLo	38	StBr SiLo
6	4	30	Br SiLo	40	StBr SiLo
6	5	20	Br SiLo	30	StBr SiLo
6	6	24	Br SiLo	34	StBr SiLo
6	7	24	Br SiLo	34	StBr SiLo
6	8	25	Br SiLo	35	StBr SiLo
6	9	20	Br SiLo	30	StBr SiLo
6	**10**	**26**	**Br SiLo Asp**	**36**	**StBr SiLo**
6	11	20	Br SiLo	30	StBr SiLo
7	1	25	Br SiLo	35	StBr SiLo
7	2	28	Br SiLo S	38	StBr SiLo
7	3	30	Br SiLo	40	StBr SiLo

Appendix C - Table 5: Subsurface Test Inventory.

Transect	ST	Horizon A depth (cmbs)	Horizon A soil/artifacts	Horizon B depth (cmbs)	Horizon B soil
7	4	30	Br SiLo	40	StBr SiLo
7	5	23	Br SiLo Grv	33	StBr SiLo
7	**6**	**25**	**Br SiLo beer bottle**	**35**	**StBr SiLo**
7	7	25	Br SiLo	35	StBr SiLo
7	8	24	Br SiLo	34	StBr SiLo
7	9	22	Br SiLo	32	StBr SiLo
7	**10**	**20**	**Br SiLo Asp**	**30**	**StBr SiLo**
7	11	15	Br SiLo	25	StBr SiLo
7	12	24	Br SiLo	34	StBr SiLo
8	1	27	Br SiLo S	37	StBr SiLo
8	2	27	Br SiLo S	37	StBr SiLo
8	3	26	Br SiLo	36	StBr SiLo
8	4	27	Br SiLo	37	StBr SiLo
8	5	24	Br SiLo	34	StBr SiLo
8	6	25	Br SiLo	35	StBr SiLo
8	**7**	**32**	**Br SiLo plastic straw**	**42**	**StBr SiLo**
8	8	28	Br SiLo	38	StBr SiLo
8	9	28	Br SiLo	38	StBr SiLo
8	**10**	**27**	**Br SiLo Asp**	**37**	**StBr SiLo**
8	11	20	Br SiLo	30	StBr SiLo
9	1	25	Br SiLo	35	StBr SiLo
9	2	24	Br SiLo	34	StBr SiLo
9	3	26	Br SiLo	36	StBr SiLo
9	4	23	Br SiLo	33	StBr SiLo
9	5	26	Br SiLo	36	StBr SiLo
9	6	35	Br SiLo	45	StBr SiLo
9	7	24	Br SiLo	34	StBr SiLo
9	8	27	Br SiLo	37	StBr SiLo
9	9	28	Br SiLo	38	StBr SiLo
9	**10**	**24**	**Br SiLo Asp**	**34**	**StBr SiLo**
9	11	20	Br SiLo	30	StBr SiLo
9	12	23	Br SiLo	33	StBr SiLo
10	1	30	Br SiLo	40	StBr SiLo
10	2	31	Br SiLo	41	StBr SiLo
10	3	28	Br SiLo	38	StBr SiLo
10	4	24	Br SiLo	34	StBr SiLo
10	5	30	Br SiLo	40	StBr SiLo
10	6	32	Br SiLo	42	StBr SiLo
10	7	10	Br SiLo	20	StBr SiLo
10	8	26	Br SiLo	36	StBr SiLo
10	9	28	Br SiLo	38	StBr SiLo
10	10	21	Br SiLo	31	StBr SiLo
10	11	18	Br SiLo	28	StBr SiLo
10	12	20	Br SiLo	30	StBr SiLo
11	1	23	Br SnLo	33	URD
11	2	28	Br SiLo Grv	38	StBr SiLo
11	3	25	Br SiLo	35	StBr SiLo
11	8	26	Br SiLo	36	StBr SiLo
11	9	26	Br SiLo	36	StBr SiLo
11	10	35	Br SiLo	45	StBr SiLo
11	11	25	Br SiLo	35	StBr SiLo
11	12	21	Br SiLo	31	StBr SiLo
12	1	20	Br SnLo Grv	30	URD
12	2	27	Br SiLo	37	StBr SiLo
12	3	26	Br SiLo	36	StBr SiLo

Appendix C - Table 5: Subsurface Test Inventory.

Transect	ST	Horizon A depth (cmbs)	Horizon A soil/artifacts	Horizon B depth (cmbs)	Horizon B soil
12	**8**	**26**	**Br SiLo plastic, clear flat glass**	**36**	**StBr SiLo**
12	9	30	Br SiLo	40	StBr SiLo
12	10	32	Br SiLo	42	StBr SiLo
12	**11**	**26**	**Br SiLo Asp**	**36**	**StBr SiLo**
13	1	21	Br SnLo Grv	31	URD
13	2	20	Br SiLo	30	StBr SiLo
13	3	25	Br SiLo	35	StBr SiLo
13	8	27	Br SiLo	37	StBr SiLo
13	9	30	Br SiLo	40	StBr SiLo
13	10	25	Br SiLo	35	StBr SiLo
13	**11**	**21**	**Br SiLo Asp**	**31**	**StBr SiLo**
14	1	19	Br SiLo Grv	29	StBr SiLo
14	2	20	Br SiLo	30	StBr SiLo
14	3	26	Br SiLo	36	StBr SiLo
14	4	25	Br SiLo	35	StBr SiLo
14	5	26	Br SiLo	36	StBr SiLo
14	6	25	Br SiLo	35	StBr SiLo
14	7	10	Br SiLo	20	StBr SiLo
14	8	25	Br SiLo	35	StBr SiLo
14	9	24	Br SiLo	34	StBr SiLo
14	10	26	Br SiLo	36	StBr SiLo
14	11	24	Br SiLo	34	StBr SiLo
15	1	20	Br SiLo	30	StBr SiLo
15	2	24	Br SiLo	34	StBr SiLo
15	3	25	Br SiLo roots	35	StBr SiLo
15	4	26	Br SiLo	36	StBr SiLo
15	5	10	Br SiLo	20	StBr SiLo
15	6	29	Br SiLo	39	StBr SiLo
15	8	15	Br SiLo roots	25	StBr SiLo
16	1	25	Br SiLo	35	StBr SiLo
16	2	20	Br SiLo	30	StBr SiLo
16	3	25	Br SiLo roots	35	StBr SiLo
16	4	25	Br SiLo roots	35	StBr SiLo
16	5	25	Br SiLo roots	35	StBr SiLo
16	6	24	Br SiLo	34	StBr SiLo
16	8	26	Br SiLo	36	StBr SiLo
17	1	17	Br SiLo	27	StBr SiLo
17	2	30	Br SiLo	40	StBr SiLo
17	3	20	Br SiLo roots	30	StBr SiLo
17	4	15	Br SiLo	25	StBr SiLo
17	5	23	Br SiLo	33	StBr SiLo
17	6	27	Br SiLo	37	StBr SiLo
17	7	23	Br SiLo	33	StBr SiLo
18	1	26	Br SiLo	36	StBr SiLo
18	2	29	Br SiLo	39	StBr SiLo
18	3	30	Br SiLo	40	StBr SiLo
18	4	20	Br SiLo	30	StBr SiLo
18	5	22	Br SiLo	32	StBr SiLo
18	6	30	Br SiLo	40	StBr SiLo
18	8	25	Br SiLo	35	StBr SiLo
18	9	24	Br SiLo	34	StBr SiLo
18	10	26	Br SiLo	36	StBr SiLo
18	11	24	Br SiLo	34	StBr SiLo
19	1	20	Br SiLo	30	StBr SiLo
19	2	24	Br SiLo	34	StBr SiLo
19	3	25	Br SiLo	35	StBr SiLo

Appendix C - Table 5: Subsurface Test Inventory.

Transect	ST	Horizon A depth (cmbs)	Horizon A soil/artifacts	Horizon B depth (cmbs)	Horizon B soil
19	4	16	Br SiLo roots	26	StBr SiLo
19	5	20	Br SiLo	30	StBr SiLo
19	7	29	Br SiLo	39	StBr SiLo
19	8	27	Br SiLo	37	StBr SiLo
19	9	23	Br SiLo	33	StBr SiLo
19	10	26	Br SiLo	36	StBr SiLo
19	11	29	Br SiLo	39	StBr SiLo
20	1	30	Br SiLo	40	StBr SiLo
20	2	20	Br SiLo	30	StBr SiLo
20	3	22	Br SiLo roots	32	StBr SiLo
20	4	30	Br SiLo	40	StBr SiLo
20	5	25	Br SiLo	35	StBr SiLo
20	6	20	Br SiLo	30	StBr SiLo
20	7	24	Br SiLo	34	StBr SiLo
20	8	25	Br SiLo	35	StBr SiLo
20	9	26	Br SiLo	36	StBr SiLo
20	10	29	Br SiLo	39	StBr SiLo
20	11	22	Br SiLo	32	StBr SiLo
20	12	20	Br SiLo	30	StBr SiLo

Key: Br brown, Y yellow, St strong, SiLo silty loam, SnLo sandy loam, ClLo clay loam
Grv gravel, Asp MacAdam, Ud udorthents, S-slope >20 degrees, **BOLD** positive for recent artifact.

Appendix D: Official Correspondence.

State Historic Preservation Office
New York State Office of Parks, Recreation and Historic Preservation

Human Remains Discovery Protocol

In the event that human remains are encountered during construction or archaeological investigations, the State Historic Preservation Office (SHPO) requires that the following protocol is implemented:

.At all times human remains must be treated with the utmost dignity and respect. Should human remains be encountered work in the general area of the discovery will stop immediately and the location will be immediately secured and protected from damage and disturbance.

. Human remains or associated artifacts will be left in place and not disturbed. No skeletal remains or materials associated with the remains will be collected or removed until appropriate consultation has taken place and a plan of action has been developed.

. The county coroner and local law enforcement as well as the SHPO and the involved agency will be notified immediately. The coroner and local law enforcement will make the official ruling on the nature of the remains, being either forensic or archaeological. If the remains are archeological in nature, a bioarchaeologist will confirm the identification as human.

. If human remains are determined to be Native American, the remains will be left in place and protected from further disturbance until a plan for their protection or removal can be generated. The involved agency will consult SHPO and appropriate Native American groups to develop a plan of action that is consistent with the Native American Graves Protection and Repatriation Act (NAGPRA) guidance.

. If human remains are determined to be Euro-American, the remains will be left in place and protected from further disturbance until a plan for their avoidance or removal can be generated. Consultation with the SHPO and other appropriate parties will be required to determine a plan of action.

NEW YORK STATE OF OPPORTUNITY. Office of General Services

ANDREW M. CUOMO
Governor

ROANN M. DESTITO
Commissioner

May 11, 2021

Sage Gerling, City Manager
City of Geneva
City Hall
47 Castle Street
Geneva, New York 14456

Re: Lead Agency Coordination Response
1115 Lochland Road Development
City of Geneva, Ontario County

This letter is in response to your communication dated April 30, 2021, regarding the State Environmental Quality Review (SEQR) requirements under Article 8 of the Environmental Conservation Law (ECL) and 6 NYCRR Part 617 for the projects listed above.

Name of Actions	1115 Lochland Road Development
OGS Contact Person	Jamie Lacko, Environmental Analyst 2
OGS Authorization(s)	The use of State owned land underwater is subject to Article 6, Section 75, of the Public Lands Law.

Comments:
New York State Office of General Services (OGS) has no objection to your agency assuming lead agency status for this action. Pursuant to the Public Lands Law OGS is responsible for activities which affect New York State owned lands under water or formerly underwater, as well as State owned uplands. The applicant will need to seek appropriate authorization(s) from OGS.

Historical or Archeological:
This project/site appears to be located within an area of potential historical or archeological significance. If approvals/permits are ultimately needed from this Department, we may require consultation with the New York State Office of Parks, Recreation and Historic Preservation (OPRHP) in order to better evaluate this project's impacts on these resources.

To initiate consultation with OPRHP, please visit their project submission website at https://cris.parks.ny.gov/. Please add Jamie Lacko at jamie.lacko@ogs.ny.gov, to the list of contacts for your project.

Please continue to keep OGS apprised of the progress in both the project and the environmental reviews. Do not hesitate to contact me at (518) 474-6238, if you have questions regarding the above information. Thank you.

Sincerely,

Jamie Lacko

Jamie G. Lacko
Environmental Analyst II
State Asset and Land Management

LA Response Template 1

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

ANDREW M. CUOMO
Governor

MARIE THERESE DOMINGUEZ
Commissioner

KEVIN BUSH, P.E.
Regional Director

May 19, 2021

Attn: Sage Gerling, City Manager
City of Geneva
47 Castle Street
Geneva, NY 14456

RE: SEQR Lead Agency Status for the 1115 Lochland Road – Mixed Use Development

Dear Mr. Gerling:

The New York State Department of Transportation concurs with the designation of the Geneva City Council as the lead agency for the referenced action.

Any work (including access or utility work) within the right of way of any State Highway will require a Highway Work Permit from the Department's Traffic and Safety and Mobility Office. Also, any such work will require coordination with the Department's planned maintenance and/or capital improvements through our Wayne/Ontario Maintenance Office. Occupancy of any state-owned property (short or long term) may require a Permit for Use of State-Owned Property from the Department's Right-of-Way Office. As a permitting agency under SEQRA, the Department should be given the opportunity to review any site plans, environmental impact statements, traffic studies, or drainage plans prior to approval to assure that the negative impacts on State facilities are mitigated as appropriate.

The State Smart Growth Public Infrastructure Policy Act, found in Section 6 of the Environmental Law, obliges the New York State Department of Transportation to evaluate projects it approves, undertakes, supports, or finances against the enumerated smart growth criteria. It is our expectation that a Smart Growth Checklist and attestation may be required prior to the issuance of either a Highway Work Permit or a Permit for Use of State-Owned Property.

Please contact Lora Leon of our Planning & Program Management Group at (585) 272-3402 or by email at lora.leon@dot.ny.gov if you have any questions concerning this matter.

Sincerely,

Kevin C. Bush, P.E.
Regional Director, Region 4

pc: Scott Robinson, Director of Operations, NYSDOT R4
Paul Spitzer, Regional Traffic Engineer, NYSDOT R4
Zachary Starke, Traffic, NYSDOT R4
Chris Caraccilo, Landscape Architecture/Environmental Group, NYSDOT R4
Jeremy Button, Right-of-Way, NYSDOT R4
Lora Leon, Planning, NYSDOT R4
Bill Butts, Wayne/Ontario Resident Engineer, NYSDOT R4

NEW YORK STATE OF OPPORTUNITY. Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO
Governor

ERIK KULLESEID
Commissioner

June 30, 2021

Raymond Raimondi
Project Manager
Marathon Engineering
39 Cascade Dr
Rochester, NY 14614

Re: HUD
Proposed Hotel - Recreational Complex Construction Project
1115 Lockland Road, Geneva, Ontario County, NY
21PR02982

Dear Raymond Raimondi:

Thank you for requesting the comments of the New York State Historic Preservation Office (SHPO). The Archaeology Unit has reviewed the Phase IA/B Archaeological Survey report prepared by Historical Archaeological Zoological Explorations (H.A.Z.Ex.) (Hazel June 2021; 21SR00370) in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Archaeological Historic/Cultural resources.

The SHPO understands that no archaeological sites were identified during the above-noted investigation. The SHPO thus concurs with the report's conclusion that no further archaeological investigations are warranted, and the Archaeology Unit has no further archaeological concerns for this project. This recommendation pertains only to the Area of Potential Effects (APE) examined during the above-referenced investigation. Should the project design change, the SHPO recommends further consultation with this office.

Please note, before an effect finding determination can be rendered by this office, the Technical Unit must complete their review. Please continue to consult with Ms. Robyn Sedgwick regarding her review of potential project impacts to architectural cultural resources. She can be reached at Robyn.Sedgwick@parks.ny.gov.

If you have any questions, I can be reached via e-mail at Josalyn.Ferguson@parks.ny.gov.

Sincerely,

Josalyn Ferguson, Ph.D.
Scientist Archaeology

via email only

c.c. Chris Hazel, H.A.Z.Ex.
c.c. Matt Tomlinson, Marathon Engineering
c.c. Jamie Lacko, OGS
c.c. Sage Gerling, City of Geneva

GENEVA LAKEFRONT DEVELOPMENT AT THE LEGION

GENEVA, NY

Viewshed Analysis

prepared for:

RIVERS EDGE CAPITAL

PINE RIDGE
CONSTRUCTION MANAGEMENT

30 June 2021

GENEVA
UNIQUELY URBAN

submitted by:

wjca

GENEVA LAKEFRONT DEVELOPMENT AT THE LEGION

GENEVA, NY

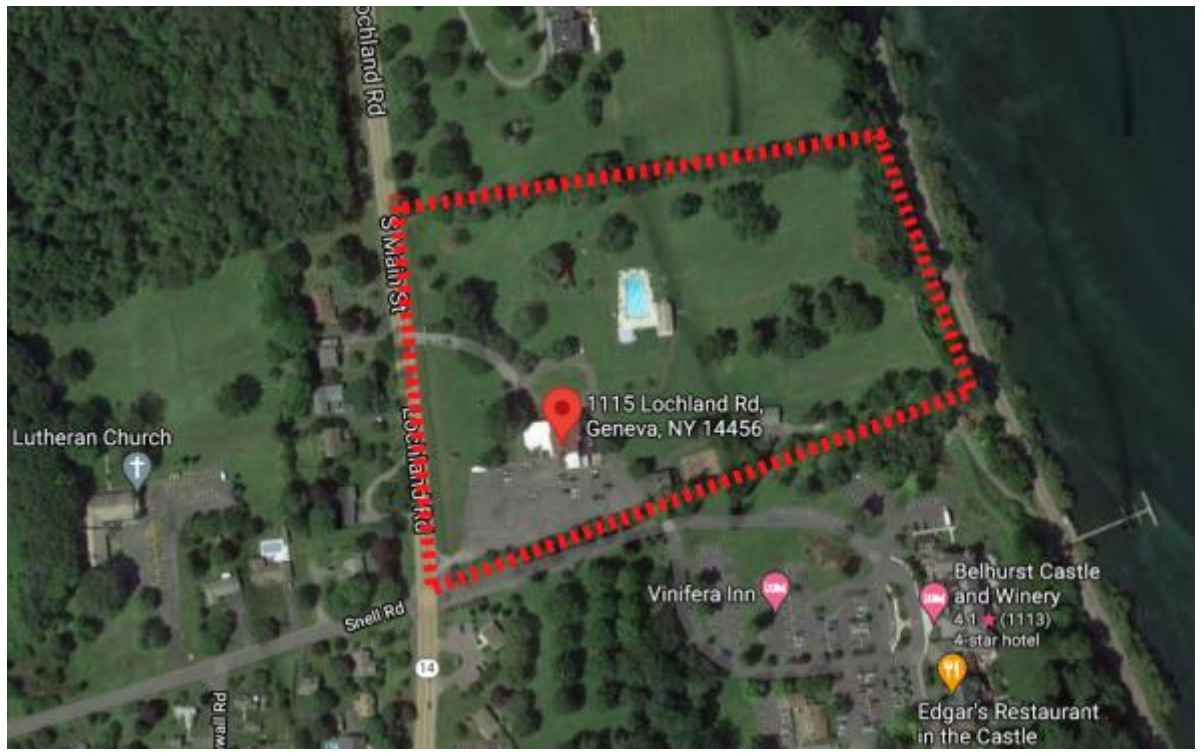
Site Context

The Site is located on the Western side of State Highway 14 (Lochland Road), on the Southern border of the City of Geneva. Seneca Lake borders the East side of the Site.

Directly to the south is the Belhurst Castle, a National Registered Landmark. To the north is the Lochland School. Both properties are visually screened from the subject property by mature vegetation.

Currently on the Site there is a large American Legion Building along with ancillary structures. There is a large parking lot on the southwest corner of the site.

There are very limited views of Seneca Lake from Lochland Road.



prepared for:

RIVERS EDGE CAPITAL

PINE RIDGE
CONSTRUCTION MANAGEMENT

30 June 2021

GENEVA
UNIQUELY URBAN

submitted by:

WJCA

SEQRA DOCUMENTS

GENEVA LAKEFRONT DEVELOPMENT AT THE LEGION

GENEVA, NY

Analysis-

The study considers the potential public visual impact from 3 areas.

A – View North along Lochland Road
B – View South along Lochland Road
C – View East from the intersection of Slosson Road and Snell Road (view “C” was a specific request from the Geneva Planning Board)

Note – the photo renderings are showing a proposed 4 story hotel. Our application is requesting approval for a hotel not to exceed 5 stories.

prepared for:

RIVERS EDGE CAPITAL

PINE RIDGE
CONSTRUCTION MANAGEMENT

30 June 2021

GENEVA
UNIQUELY URBAN

submitted by:

WJCA

GENEVA LAKEFRONT DEVELOPMENT AT THE LEGION

GENEVA, NY

Analysis-

The study considers the potential visual impact from Lochland Road.

We studied 3 views:

A – View North along Lochland Road
B – View South along Lochland Road
C – View East from the intersection of Slosson Road and Snell Road

Google Street images are used for the existing conditions. Massing models were added to show the proposed site development.

Of note on the Southwest corner of the site currently existing a large poorly maintained asphalt parking lot. The proposed development will reduce the size of the lot while also providing a landscape buffer between it and Lochland Road.

prepared for:

RIVERS EDGE CAPITAL

PINE RIDGE
CONSTRUCTION MANAGEMENT

30 June 2021

GENEVA
UNIQUELY URBAN

submitted by:

WJCA

SEQRA DOCUMENTS

202

GENEVA LAKEFRONT DEVELOPMENT AT THE LEGION

GENEVA, NY

View A – existing conditions
Lochland Road - North

prepared for:

RIVERS EDGE CAPITAL

PINE RIDGE
CONSTRUCTION MANAGEMENT

30 June 2021

GENEVA
UNIQUELY URBAN

submitted by:

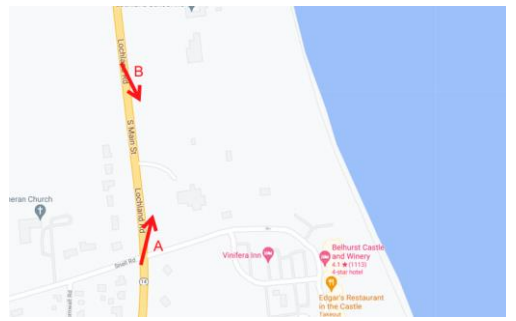
wjca

GENEVA LAKEFRONT DEVELOPMENT AT THE LEGION

GENEVA, NY

View A – proposed
Lochland Road - North

visual impact mitigated by mature vegetation along the property line and landscape buffer



prepared for:

RIVERS EDGE CAPITAL

PINE RIDGE
CONSTRUCTION MANAGEMENT

30 June 2021

GENEVA
UNIQUELY URBAN

submitted by:

wjca

GENEVA LAKEFRONT DEVELOPMENT AT THE LEGION

GENEVA, NY

View B – existing conditions
Lochland Road - South

prepared for:

RIVERS EDGE CAPITAL

PINE RIDGE
CONSTRUCTION MANAGEMENT

30 June 2021

GENEVA
UNIQUELY URBAN

submitted by:

wjca

GENEVA LAKEFRONT DEVELOPMENT AT THE LEGION

GENEVA, NY

View B – proposed
Lochland Road - South

visual impact mitigated by mature vegetation along the property line

prepared for:

RIVERS EDGE CAPITAL

PINE RIDGE CONSTRUCTION MANAGEMENT

30 June 2021

GENEVA
UNIQUELY URBAN

submitted by:

WJCA

SEQRA DOCUMENTS

GENEVA LAKEFRONT DEVELOPMENT AT THE LEGION

GENEVA, NY

View C – existing conditions
Slosson Road and Snell Road

prepared for:

RIVERS EDGE CAPITAL

PINE RIDGE
CONSTRUCTION MANAGEMENT

30 June 2021

GENEVA
UNIQUELY URBAN

submitted by:

wjca

GENEVA LAKEFRONT DEVELOPMENT AT THE LEGION

GENEVA, NY

View C
Slosson Road and Snell Road

Insignificant visual impact

prepared for:

RIVERS EDGE CAPITAL
PINE RIDGE
CONSTRUCTION MANAGEMENT

30 June 2021

GENEVA
UNIQUELY URBAN

submitted by:

wjca