Section X: Appendices

Appendix A: Notices and Scoping Document For SEIS

DRAFT SCOPE

Last Revised 7/10/2019

This Scope was adopted as revised at the Planning Board meeting on July 10th, 2019. The public will be permitted to comment on this scope in writing by submitting a letter to the Lead Agency by August 5th, 2018.

FOR THE PREPARATION OF A SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT STATEMENT

Name of Action: VILLAGE VIEW CLUSTER SUBDIVISION

Location of Action: VILLAGE AND TOWN OF WARWICK, ORANGE COUNTY, NEW YORK

Date Submitted: APRIL 23, 2019

Lead Agency: Village of Warwick Planning Board
Village Hall, PO Box 369
Warwick, NY 10990
(845) 986-9888

I. FRONT MATERIAL

A. Cover Sheet. The SEIS shall begin with a cover sheet that identifies the following: •

This it is a Supplemental Draft Environmental Impact Statement

- Date Submitted.
- The name and location of the project.
- The Village of Warwick Planning Board is acting as the Lead Agency for the Project with the name and telephone number of a person at the Agency to be contacted for information.
- The name and address of the Project Sponsor, and the name and telephone number of a contact person representing the Sponsor.
- The name and address of the primary preparer(s) of the SEIS and the name and telephone number of a contact person representing the preparer.
- Date of acceptance of the SEIS (to be inserted at a later date).
- The deadline by which comments on the SEIS are due (to be inserted at a later date).
- A list of all Consultants involved with the project with associated names, addresses, telephone numbers and project responsibilities.

- Table of Contents: The SEIS will include a table of contents identifying major sections and subsections of the document including a list of figures, tables, appendix items and a list of any additional SEIS volumes, if any.

II. SUMMARY

The SEIS shall include a summary. The summary will only include information found elsewhere in the body of the SEIS but at a minimum should include:

1. A brief description of the action 33-lot cluster subdivision having a mix of one family and Townhouse structures with a total of 42 dwelling units. Also included are associated utility improvements and internal road network with road connection through adjacent land belonging to the project sponsor but lying in the Town of Warwick. The plan is known as the Reduced Scale Alternative. Access to the Site will be from Woodside Drive and Sleepy Valley Road. The site is to be served by Village services. A minimum of 35% of the Site will be preserved as permanent conservation space.
2. A brief description of the reasons why the plan is being provided as a new alternative. Explain the limited study being conducted by the SEIS. The DEIS is to be incorporated by reference.
3. A list of Involved Agencies with required approvals and permits.
4. A brief listing of the anticipated impacts of the Reduced Scale Alternative over and above what was anticipated by the original DEIS together with any proposed mitigation measures for each of the impacts discussed in the SEIS. The presentation and format should be simple and concise.

III. DESCRIPTION OF PROPOSED ACTION

The SEIS shall include a description of the proposed action with the following information:

A. Introduction: The introduction should provide a description of the purpose of the Supplemental Draft Environmental Impact Statement (SEIS) including a statement of the history of the SEQRA process as it relates to the project. The Supplemental Draft Environmental Statement was required when the plans were changed to include access to the subdivision through a parcel of land owned by the applicant in the Town of Warwick. The Village of Warwick is acting as lead agency for the SEQRA review of the proposed Town Road access, in agreement with the Town. Lead Agency status was re-affirmed on July 9th, 2019 at the Village Board meeting and includes all involved agencies in this project listed in Section III.C of this document.

B. Project Description: The Section shall include a description of the project and the reasons why it is being proposed together with a description of the changes. There

will also be a summary description of the originally approved 28 lot subdivision, the proposed 45 lot Preferred Alternative subdivision presented in the original DEIS and the new Reduced Scale Alternative that has a total of 33 lots, some of which are townhouse unit for a total of 42 dwelling units. Information will be provided in a table format for comparison.

C. Involved and Interested Agencies and Required Approvals: List all required or requested approvals and the associated involved agencies that have permitting or approval authority. Also list Interested Agencies, which are those agencies that have expressed, or are likely to have, an interest in the project but who have no permitting or approval authority. Both Interested and Involved Agencies will receive copies of the SEIS.

Agencies identified as Interested and Involved shall include:

Village of Warwick Village Board
Village Hall, PO Box 369
Warwick, NY 10990

Town of Warwick Town Board
132 Kings Highway
Warwick, NY 10990

Town of Warwick Planning Board
132 Kings Highway
Warwick, NY 10990

NYS Department of Environmental Conservation
Region 3
21 South Putt Corners Road
New Paltz, NY 12561

NYS Office of Parks, Recreation and Historic Preservation
Field Services Bureau – Peebles Island
PO Box 189
Waterford, NY 12188-0189

Orange County Department of Planning
124 Main Street
Goshen, NY 10924

Orange County Department of Health
124 Main Street
Goshen, NY 10924

US Army Corps of Engineers
Regulatory Branch - New York District
Room 1937
26 Federal Plaza
New York, New York 10278

IV. ENVIRONMENTAL SETTING: EXISTING CONDITIONS, ANTICIPATED IMPACTS AND PROPOSED MITIGATION

The SEIS will explore, in order, the existing conditions and anticipated impacts of the new Reduced Scale Alternative and its corresponding through road connection to Sleepy Valley Road over lands lying in the Town of Warwick. Proposed mitigation for each major topic of concern outlined below will be presented and compared with the original DEIS:

A. Soils, Topography and Geology: This section will describe soil types and relevant geological and topographic features of the site including those pertaining to the road connection through the Town. The associated impacts relevant to these features due to site grading and long-term use of the site will be discussed.

B. Ground and Surface Water Resources: This section will describe the potential impacts to ground and surface waters due to the proposed Reduced Scale Alternative and the road connection through the Town. A discussion of potential impacts from possible future development of adjacent lands owned by the project sponsor in the Town of Warwick will also be included.

C. Wastewater Management: This section will describe sewer discharge to the Village's sewer system from the Reduced Scale Alternative. A discussion of potential impacts from sanitary sewer discharge from possible future development of adjacent lands owned by the project sponsor in the Town of Warwick will also be included.

D. Water Supply: This section will describe water consumption from the Village's water system for the Reduced Scale alternative. A discussion of potential impacts related to water consumption from possible future development of adjacent lands owned by the project sponsor in the Town of Warwick will also be included.

E. Storm water Management and Flooding: This section will include a pre and post development analysis of the storm water drainage and required storm water management for the Reduced Scale Alternative and corresponding road connection through the Town. Potential for downstream impacts will be discussed. Compliance with NYS SPDES Permit requirements will be

demonstrated. A discussion of potential impacts related to stormwater management from possible future development of adjacent lands owned by the project sponsor in the Town of Warwick will also be included.

F. Flora and Fauna: This section will provide an updated flora and fauna report to confirm or refute the findings of the DEIS and include analysis of the new proposed disturbance area from the proposed road connection to Sleepy Valley Road in the Town.

G. Traffic: This section will provide an updated traffic study which analyzes the proposed through road connection to Sleepy Valley Road. A discussion of potential impacts related to traffic generation from possible future development of adjacent lands owned by the project sponsor in the Town of Warwick will also be included.

H. Land Use and Zoning: This section will refer the reader to the discussion in the original DEIS and describe the changes from the Reduced Scale Alternative versus the Preferred Alternative. The discussion will include how the Reduced Scale Alternative fits in with the current zoning and meets dimensional requirements of the Village's Cluster Zoning.

I. School Services: This section shall discuss the impacts to schools from the Reduced Scale Alternative. A discussion of potential school related impacts from possible future development of adjacent lands owned by the project sponsor in the Town of Warwick will also be included.

J. Fiscal Impact: This section will describe the projected tax revenue from the Reduced Scale Alternative, and also discuss the fiscal impacts (costs to maintain verses proposed tax revenue) of the proposed road on the Town of Warwick both pre- and post residential development in the Town.

The discussion will also address the provision of affordable housing and its feasibility for this project as an update of the DEIS.

K. Cultural Resources: This section will discuss cultural resources as relates to the new disturbance proposed from the through road connection to Sleepy Valley Road over lands lying in the Town of Warwick. A Phase 1A/1B Survey will be prepared for the proposed road disturbance.

V. ADVERSE IMPACTS THAT CANNOT BE AVOIDED

VI. ALTERNATIVES

The alternatives already considered in the DEIS will be included by reference. However, the Alternatives section will include a scenario of the options that are available to the applicant should the Town Road proposed is not approved.

VII. IRRETREIVABLE AND IRREVERSIBLE COMMITMENT OF RESOURCES

VIII. GROWTH INDUCING IMPACTS

The SEIS will discuss the impact on growth that the New proposed road in the Town will have on town parcels.

IX. EFFECTS ON USE AND CONSERVATION OF ENERGY

X. SOURCES AND BIBLIOGRAPHY

XI. APPENDICES

Appendices to include the following at a minimum:

A. All SEQR documentation

B. Copies of all official correspondence related to issues discussed in the SEIS

C. Copies of all technical studies (traffic, drainage, cultural resources, etc.).

77 Main Street
Post Office Box 369
Warwick, New York 10990
www.villageofwarwick.org

(845) 986-2031
FAX (845) 986-6884
mayor@villageofwarwick.org
clerk@villageofwarwick.org

VILLAGE OF WARWICK
INCORPORATED 1867

May 14, 2019

VILLAGE OF WARWICK, NEW YORK PLANNING BOARD
NOTICE OF INTENT TO REESTABLISH LEAD AGENCY

TO: **INVOLVED AGENCIES**
PROJECT TITLE: **VILLAGE VIEW ESTATES SUBDIVISION AND SITE PLAN**

This notification is for the purpose of reestablishing the lead agency status of the Village of Warwick Planning Board for the environmental review of the above titled project in accordance with the requirements of Title 6 NYCRR 617 et. seq. and the regulations promulgated thereunder.

On August 17, 2017 the Village of Warwick Planning Board ("Planning Board") declared its Intention to be Lead Agency for a proposed Subdivision and Site Plan located at the corner of Woodside Dr. and Locust St. in the Village of Warwick. **On October 21, 2004** the lead agency status of the Planning Board was established. The Planning Board has been acting in that capacity to this date. On **October 21, 2004** the Planning Board resolved to issue a positive declaration of environmental impacts. A draft environmental impact statement (DEIS) has been prepared and on **July 19, 2018** a public hearing on the DEIS was opened and thereafter closed on **October 18, 2018**. In response to comments and concerns received at and after the public hearing the project sponsor has submitted an alternative plan for consideration. That plan incorporates adjoining lands owned by the project sponsor and located in the Town of Warwick, County of Orange, State of New York. As a result of this now submitted alternative plan which incorporates lands in the Town of Warwick the Village of Warwick Planning Board hereby notifies involved agencies of its intent to reestablish its status as Lead Agency for this project.

A copy of the alternative plan is attached.

This notification is being sent to involved agencies with the request that you consent to the Warwick Planning Board's reestablishment of its status as Lead Agency. If, however, you do not agree, you may follow the procedures outlined in 6NYCRR 617.6(b)(5).

If you have any questions you can contact me by telephone at 845-986-2031 ext. 7 or via e-mail at planning@villageofwarwick.org.

Sincerely,

George B. Aulen, Chairman
Village of Warwick Planning Board

A copy of this notice is being sent to the following Involved Agencies:

Town of Warwick Planning Dept.
132 Kings Hwy
Warwick, New York 10990

OCDP & OCHD
124 Main St.
Goshen, New York 10924

Town of Warwick
132 Kings Hwy
Warwick, New York 10990

NYS DOT
3233 Route 6
Middletown, NY 10940

NYS DEC
21 South Putt Corner Rd. Region 3
New Paltz, NY 12561

US Army Corps Of Engineers
26 Federal Plaza - Room 1937
New York, New York 10278

NYS Office of Parks, Recreation & Historic
Field Service Bureau-Peebles Island
P.O. Box 189
Waterford, NY 12188-0189

Village of Warwick
Village Board
77 Main St.
Warwick, New York 10990

(5) Actions for which lead agency cannot be agreed upon. (i) If, within the 30 calendar days allotted for establishment of lead agency, the involved agencies are unable to agree upon which agency will be the lead agency, any involved agency or the project sponsor may request, by certified mail or other form of receipted delivery to the commissioner, that a lead agency be designated. Simultaneously, copies of the request must be sent by certified mail or other form of receipted delivery to all involved agencies and the project sponsor. Any agency raising a dispute must be ready to assume the lead agency functions if such agency is designated by the commissioner. 617: State Environmental Quality Review - NYS Dept. of Environmental Conservation Page 23 of 53 http://www.dec.ny.gov/regs/4490.html 1/14/2015

Appendix B: Correspondence received during the public comment period.

77 Main Street
Post Office Box 369
Warwick, New York 10990
www.villageofwarwick.org

VILLAGE OF WARWICK
INCORPORATED 1867

(845) 986-2031
FAX (845) 986-6884
mayor@villageofwarwick.org
clerk@villageofwarwick.org

May 16, 2019

Re: **NOTICE OF INTENT TO REESTABLISH LEAD AGENCY**

Project: **VILLAGE VIEW ESTATES SUBDIVISION & SITE PLAN**

To Whom It May Concern:

Enclosed please find a signed letter from Village of Warwick Planning Board Chairman, George Aulen requesting reestablishment for Lead Agency on a proposed project in the Village of Warwick, New York. Also enclosed please find the following:

1) A copy of the Draft Scoping Document (which at this time has not been adopted by the Board)
2) A copy of a Long EAF
3) A subdivision/site plan with the title: Reduced Scale Alternative
4) A site plan for a proposed road in the Town of Warwick contiguous to the Village property for the purposes of ingress egress onto the Village property.

If you have any comments or questions please contact me at 845-986-2031 ext. 6 or by e-mail at planning@villageofwarwick.org.

Sincerely,

Maureen J. Evans,
Planning Board secretary

ORANGE COUNTY DEPARTMENT OF HEALTH

Project Name Village View Estates Municipality V. Warwick

Date of mailing by Municipal Planning Board May 14, 2019

Date of receipt by Orange County Department of Health May 20, 2019

Addendum to the Lead Agency Consent Form and/ or Department of Health comments/ recommendations on the project referenced above

☑ Let this correspondence serve as notice that the Orange County Department of Health (OCHD) does not wish to contest the Lead agency designation as proposed on the attached "Notice of Establishment of a Lead Agency".

While not petitioning for the role of Lead Agency in the State Environmental Quality Review (SEQRA) of the subject application, the Orange County Department of Health, as a listed Involved Agency under the provisions of SEQRA, offers the following guidance to be considered by the Lead Agency in the preliminary review of the application. Please note that the following checked items are based on a cursory review of the documentation provided at the time lead agency status was being determined. Our office reserves the right to review items, currently unchecked, based on any new information, any changes to the project, or any other unforeseen circumstances:

PROPOSED REALTY SUBDIVISIONS- 5 lots or more, each under 5 acres in area

☐ A set of plans should be submitted to the OCHD for selection of test well locations once the Planning Board has substantially accepted the lot layout. Plans must include lot layout, proposed well and sewage disposal system locations, topography, roads, all potential environmental concerns, etc.

☐ If proposed subdivision is to be served by an on-site public water supply, plans for the proposed well (s) will need approval from the NYSDOH and/ or OCHD. Approval of the water taking may be required from the NYSDEC.

PROPOSED SITE PLANS - Where an on-site groundwater (well) supply is proposed

☐ Where an application could potentially or ultimately result in the establishment of a regulated public water supply:

☐Community water supply (CWS), e.g. subdivision

☐Non-transient non-community (NTNC) water supply, e.g. an office or warehouse

☐Non-community (NCWS) water supply, e.g. a food service establishment, municipal park or camp

☐Temporary residence (TR), e.g. hotel/ motel

A plan should be submitted to the OCHD that provides the proposed well location once the Planning Board has substantially accepted the site layout. Plan must include site layout, proposed well and sewage disposal system locations, topography, roads, all potential environmental concerns, etc. This applies to all applications where the project will be served by on-site well(s).

BACKFLOW PREVENTION DEVICE (BFPD) - Domestic/ fire/ irrigation system

☐ When an application involves the interconnection of a proposed facility to an existing, regulated municipal or private water distribution system, an appropriate backflow prevention device shall be installed on the fire suppression line (sprinklers) and/ or domestic service lines to protect the existing water system from any potential hazards due to an unwanted cross-connection. Plans for the BFPD must be reviewed and approved by the OCHD.

PROPOSED WATER MAIN EXTENSIONS

☐ May require NYSDEC approval for water district expansion if proposed service area is outside existing district boundaries

☑ Water main extension will require OCHD review/ approval

☐ If a water service lateral is to tap an existing water main and is intended to provide water supply to more than one structure or to one structure together with one or more fire hydrants in the parking area or around the perimeter of the proposed structure, the service line will be treated as a private water main and will require review/ approval by the OCHD.

PROPOSED WATER DISTRIBUTION SYSTEM MODIFICATIONS

☑ All water distribution system improvements, e.g. water storage tanks, pump stations, treatment facilities and water main replacements

OTHER

☐ _____

_____

☐ _____

_____

*** **Design checklists are available on the Orange County website (Orangecountygov.com- Environmental Health page) for Subdivisions, Water System Improvements, Sewage Disposal System, Backflow Prevention Device installations. Applicant should consult with the OCHD at the early stages of the application to identify aspects of the project subject to OCHD involvement. If there are any questions regarding our offices potential involvement in this project, please feel free to contact our office at 845-291-2331 or as noted below.**

Signed by Lee Bergus, P.E.

Printed Lee BeRGus

Title SR Public Health Engineer

Date 5/23/19

Phone/email 845-291-2331

LEHMAN & GETZ
CONSULTING ENGINEERS

March 29, 2019

Village of Warwick Planning Board
77 Main Street
Warwick, NY 10990

Att: George Aulen, Chairman

Re: Village View Cluster Subdivision
L&G #1802.40

Dear Mr. Aulen and Planning Board Members:

We have reviewed the following documents submitted by Kirk Rother, P.E. for the Village View cluster subdivision project:

- Cover letter, dated March 26, 2019
- Subdivision plans (14 sheets), dated 2/12/19, for a new "Reduced Scale Alternative".

Mr. Rother's cover letter describes the number of structures and dwelling units included in the reduced scale alternative. It also details the increase in open space area and other benefits that the alternative would provide. In my opinion, the preservation of the entire stream corridor, and the associated wetlands, is a significant improvement. This alternative would provide a sidewalk on both sides of the streets where homes are proposed, an issue that the Board has discussed on several occasions.

The following comments and questions are general in nature, and supplement the 3/27/19 memorandum provided by Mr. Dickover regarding the SEQR process, in particular the issues of segmentation and the requirements for future EIS documents.

1. When he discussed the reduced scale alternative plan briefly with the Planning Board earlier this month, Mr. Rother indicated that the new road would connect from Woodside Drive to Sleepy Valley Road. The plan that's been submitted does not show the proposed road in the Town, other than a tee turnaround, presumably temporary, just past the Village limits.

   a. What is the anticipated timing of construction of a road connection to Sleepy Valley Road?

   b. Section 120-13.F of the Village's subdivision code states that "subdivisions containing 20 lots or more shall have at least two street connections with existing public streets, or streets shown on the Official Map, if such exists, or streets on an approved subdivision plat for which a bond has been filed." The applicant should discuss his plans with regard to this requirement.

c. Have the proposed stormwater management basins been designed to accommodate those portions of the Town road that will drain toward Village View?

d. The traffic study should be revised to include the impacts of the Town road connection and potential development of the Town property.

2. Proposed Lot 25 is a 4.22-acre lot located at the northern edge of the property. It includes a private road, nine two-family dwellings, and open space.

   a. The proposed ownership of the two-family dwellings should be clarified. Section 145-29.F.5 of the zoning code (cluster regulations) specifies that "attached or townhouse style units shall be condominium, cooperative, or other acceptable ownership options."

   b. How is the runoff from the proposed private road to be handled?

   c. Easements should be provided to the Village for water mains, sewer mains, and stormwater structures.

3. Is affordable housing being proposed?

4. I recommend that annexation be pursued so that the small triangular portion of Town property near Woodside Drive can be transferred into the Village.

Sincerely,

Lehman & Getz, P.C., Village Engineers
David A. Getz, P.E.

cc: Robert J. Dickover via email <Robert.Dickover@DDDBLaw.Com>

LEHMAN & GETZ
CONSULTING ENGINEERS

May 2, 2019

Village of Warwick Planning Board
77 Main Street
Warwick, NY 10990

Att: George Aulen, Chairman

Re: Village View Cluster Subdivision
L&G #1802.40

Dear Mr. Aulen and Planning Board Members:

We have reviewed the following documents submitted by Kirk Rother, P.E. for the Village View cluster subdivision project:

- Cover letter, dated April 23, 2019
- Draft scope of Supplemental EIS, dated April 23, 2019
- Through Road Connection Plans (3 sheets), dated April 22, 2019
- Concept Yield and Cluster Plans for Town Parcel, dated April 22, 2019.

We provide the following general comments:

1. The concept plans show a potential 25-lot residential cluster subdivision of the 73.4 acres located outside the Village. The road layout includes a connection to Sleepy Valley Road and to the proposed Village road that will connect to Woodside Drive. At the upcoming meeting, the applicant should discuss the conceptual stormwater management facilities for the overall project, and the location of proposed discharge points.

2. The scope of the Supplemental EIS appears to include all of the pertinent topics. The document will provide a comparison of the impacts from the various plans that have been presented. The format of the comparison should be discussed with the Board. The definition of the "preferred alternative" plan should be clarified.

Sincerely,

Lehman & Getz, P.C., Village Engineers
David A. Getz, P.E.

cc: Robert J. Dickover via email <Robert.Dickover@DDDBLaw.Com>

LEHMAN & GETZ
CONSULTING ENGINEERS

October 1, 2019

Village of Warwick Planning Board
77 Main Street
Warwick, NY 10990

Att: James Patterson, Chairman

Re: Village View Cluster Subdivision
L&G #1802.40

Dear Mr. Patterson and Planning Board Members:

We have reviewed the following documents submitted by Kirk Rother, P.E. for the Village View cluster subdivision project:

- Cover letter, dated September 24, 2019
- Supplemental EIS, dated September 24, 2019
- Village View Cluster Subdivision, Reduced Scale Alternative plans (16 sheets), dated September 13, 2019.

The Valley View Cluster Reduced Scale Alternative plans show a potential 33-lot residential cluster subdivision of the 20.3+/- acres located inside the Village. The road layout includes a proposed road within the Town of Warwick from Sleepy Valley Road to the proposed Village road that will connect to Woodside Drive. This plan is now the preferred plan of the applicant.

The Supplemental EIS discusses the expected impacts of the Reduced Scale Alternative, and provides a comparison of the impacts from the various plans that have been presented.

We provide the following comments at this time. We have not completed a detailed review of the subdivision plans.

SUBDIVISION PLANS

1. General Note 3 on Sheet 1 indicates 25 lots; this is incorrect.

2. The subdivision plat will require a surveyor's signature and seal.

3. On Sheet 3, a note refers to street trees. A variety of trees is proposed, but the total number of street trees to be planted must be shown. On Sheet 6, a proposed evergreen tree buffer is shown. The number, type and size of these trees must be provided.

4. On Sheets 12 and 13, various plantings are proposed for the perimeter of the detention ponds. Although species of plants are identified, the table should also show the quantities and size of each of the proposed plantings. A few of these plantings specify woody vegetation less than 25 feet from the principal spillway structure, or less than 15 feet from the toe of embankment; please correct.

5. Sheet 14 shows the details of the bioretention basins, and the proposed plantings, but again, the quantities of the various plants are not specified. This should be shown on the plan.

6. Concrete washout locations should be shown on the erosion control plan.

7. A tree protection detail should be provided.

SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT

1. On Page 2, 4th paragraph, the realty subdivision includes 33 residential lots, with three open space areas. The description states 26 lots, which is incorrect.

2. Wastewater management (Pages 31 & 32): Wastewater generated by the project will create an impact on the Village's collection and treatment system, including the existing Robin Brae pump station. The Village is currently investigating possible improvements to the systems.

3. Page 37, Proposed Mitigation. Discuss the planting of trees on the site along the roadway, as well as new plantings for stormwater basins, and the benefits that will be realized by planting native species.

4. We have attached a pdf file to this letter that identifies a number of typographical errors or other minor corrections to be made.

STORMWATER POLLUTION PREVENTION PLAN (SWPPP) (Appendix F)

1. The Notice of Intent must be completed.

2. In the sequence of construction (pages 13-14), include the requirement that no more than five acres can be disturbed at any one time.

3. On page 12 of SWPPP, the discussion the stream crossing is not relevant to the current plans so should be deleted.

4. Consider clarifying the wording for temporary seeding from "areas that are expected to remain disturbed for a period of 14 days" to "disturbed areas that are not expected to be disturbed again for a period of 14 days" or similar to better match the SPDES General Permit wording.

5. Describe method of rooftop disconnection for Basin #1 and #2 and show on site plans.

6. Some labels on the Appendix F maps are unreadable as currently printed; please ensure the essential ones are readable.

7. Please provide calculations that demonstrate that the splitter structures for the bioretention basins will provide the design flows to the basins, and provide any necessary details on the site plan, including a detail for DMH A2.

8. For the dry swale in Basin 5:
    a. Describe method of pretreatment and provide all relevant calculations
    b. Label on site plans and show underdrain outlet

LEHMAN & GETZ
CONSULTING ENGINEERS

October 8, 2019

Village of Warwick Planning Board
77 Main Street
Warwick, NY 10990

Att: James Patterson, Chairman

Re: Village View Cluster Subdivision – wastewater collection system
L&G #1802.40

Dear Mr. Patterson and Planning Board Members:

I met recently with several Village officials to discuss the Village View cluster subdivision project. As you know, an important issue is the project's impact on the Village's wastewater collection system, particularly the Robin Brae pump station.

We recommend that the Environmental Impact Statement for the project include a discussion of the following potential alternatives to mitigate impacts on the existing wastewater collection system:

1. Constructing a replacement pump station, with a larger wet well, adjacent to the existing pump station on Robin Brae. The existing pump station would be abandoned under this scenario.

2. Eliminating the Robin Brae pump station by constructing a new gravity system from Robin Brae to the existing sewer system in Colonial Avenue.

3. Replacing sewer lines along Maple Avenue so that flows from Village View (and some other sources) could bypass the Robin Brae pump station.

4. Constructing a new pump station on or near the Village View site to send flows to the existing sewer system in Woodside Drive that flows in southerly direction toward Grand Street.

Sincerely,

Lehman & Getz, P.C., Village Engineers
David A. Getz, P.E.

cc: Robert J. Dickover via email <Robert.Dickover@DDDBLaw.Com>

GREENPLAN

MEMORANDUM

GREENPLAN INC.
Environmental Planners
302 Pells Road
Rhinebeck, NY 12572-3354
T 845.876.5775
F 845.876.7332
E JTFink@greenplan.org

To: Ben Astorino, Chairman
Town of Warwick Planning Board

From: J. Theodore Fink, AICP

Date: July 8, 2019

Subject: Village View Supplemental EIS Draft Scope

I am in receipt of a "Draft Scope for the Preparation of a Supplemental Environmental Impact Statement" on the above applications in the Village and Town of Warwick dated April 23, 2019. The project proposes development of 42 residential dwellings in the Village and approximately 1300 linear feet of new road along with stormwater management facilities in the Town.

I offer the following comments for the Planning Board's consideration and suggest that these comments be made part of the public record of the Village's SEQR review process. These comments should not be considered all inclusive. I may have additional comments as further information is provided for review.

1. The Town lands are located within the Town of Warwick Ridgeline Overlay District. The SEIS should include a discussion of the rules that govern new development in this Overlay District.

2. The Town lands are located within the Town of Warwick Traditional Neighborhood Overlay District. The SEIS should include a discussion of the rules that govern new development in this Overlay District and whether the applicant has any plans to apply for this program in the future.

3. In Section IV.J of the Draft Scoping Document, the applicant states under "Fiscal Impact" that "This section will discuss projected tax revenue from the Reduced Scale Alternative." The action will also result in approximately 1,300 feet of new Town roads, which is likely to have a fiscal impact in the Town. The SEIS should include a discussion of the tax revenues anticipated in the Town as well as the fiscal costs to the Town.

4. The Draft Scoping Document indicates there will be "No new discussion in the SEIS" for any Growth Inducing Impacts in Section VIII of the Scoping Document. However, the presence of a new road in the Town on the parcels may induce growth and should be discussed. The SEIS should also include a discussion of the options available to the applicant if the Site Plan and/or Special Use Permit for the proposed Town road is not approved.

July 25, 2019

Mr. George Aulen, Chairman
Village of Warwick Planning Board
77 Main Street
Warwick, New York 10990

Re: **Village View Estates #2** **Task: PB180**
Locust & Woodside Drives
Tax Map Reference: 43-1-3 & 4.2 and 31-2-84.1, 84.2 and 85.2 **Area = 73.4± acres**

Dear Mr. Aulen,

Introduction: Village View Estates has a joint application with the Village and Town Planning Boards; the Village Planning Board is the SEQR Lead Agency. In the Village of Warwick, the Applicant proposes a 26-lot cluster subdivision with both one-family and two-family structures for a total of 42 new dwelling units. In the Town of Warwick, the Applicant plans to construct a proposed Town Road extending from the proposed Village Road to Sleepy Valley Road; the proposed Town Road will provide a second public means of access to the proposed cluster subdivision in the Village of Warwick.

Correspondence: We have received the following from the Applicant:

1. Cover letter prepared by Kirk Rother PE, dated June 26, 2019
2. Draft Scope for the SEIS for Village View Estates, dated/submitted April 23, 2019
3. Through Road Connection Overall Plan (4 sheets) prepared by Kirk Rother, PE, last revised June 26, 2019

Comments on the Scope of Work for the Supplemental Environmental Impact Statement, dated April 23, 2019:

1. SEIS Scope of Work dated 04/23/19, Section III.C The agencies should be indicated as being Involved or Interested and the permits/approvals required should be specifically stated.
2. SEIS Scope of Work dated 04/23/19, Section IV.A to K only some of these major topics are proposed to be discussed for the possible future development of adjacent lands owned by the project sponsor. At a minimum, this future possibility should also be discussed in Sections A, F, H, J, and K. At such time that development in the Town is proposed, the Application will be required to make an application to the Town of Warwick Planning Board.
3. SEIS Scope of Work dated 04/23/19, Section IV.E. A full Stormwater Management Plan for the Reduced Scale Alternative shall be included as an Appendix.
4. SEIS Scope of Work dated 04/23/19, Section IV.G. A complete Traffic Study Report for the Reduced Scale Alternative shall be included as an Appendix. Applicant should include proposed development in the Town, as well.
5. SEIS Scope of Work dated 04/23/19, Section IV.G. Traffic Study. The scope of work should specifically state what the roadway improvements along Locust Street are and if these improvements are still proposed. According to a 06/26/19 cover letter to the

Town of Warwick Planning Board, the Applicant is no longer proposing improvements to Locust Street; clarification must be provided.

6. SEIS Scope of Work dated 04/23/19, Section V, VII, VIII, and IX. Adverse Impacts that Cannot be Avoided states that no new discussion will be in the SEIS. Without the additional reports being completed, it seems too early in the process to conclude that there will not be any of these potential impacts. The scope of work should leave these areas open in case additional discussion is necessary.

Other Comments on the Overall Plans that may relate to both the Village and Town Planning Boards:

1. Applicant to consider combining all parcels within the Town into one lot, except for tax lot line 43-1-4.2. This tax lot is proposed for annexation from the Town into the Village; this would allow the proposed Village Road, proposed culvert, and proposed stormwater (that are proposed to be maintained by the Village) to be located on property located within the Village. In 06/26/19 cover letter to the Town of Warwick Planning Board, Applicant states that consolidation of tax lots within the Town could be a condition of final approval.
2. A snow storage area (and easement), as well as a truck turnaround area shall be specifically called out on the plans. If the stub (located in the Town) is used as a snow storage area now, Applicant to clarify where the Village and Town trucks will turn around and where snow will be piled when the Town road is completed.
3. A note must be added to the plan stating the area of disturbance. The type of SWPPP to be prepared and any best management practices should be included, according to §164-47.10C(2). The SWPPP should discuss phasing so that the disturbance will be less than 5 acres at any one time. If not, then a waiver must be obtained.
4. Drawings should show Tax ID Numbers for the proposed project, as well as those within 300-ft of the project.

Miscellaneous: Prior to placing this project on the next planning board agenda, a written response letter addressing each of the above comments should be submitted. The Applicant's response letter should provide an itemized explanation of how the plans have been revised or modified in order to address these items with specific references to the changes in the plans.

In the event that the Applicant should disagree with a comment and choose not to modify the plan, an explanation should be provided. The above comments represent our professional opinion and judgment and do not in all cases reflect the opinion of the Planning Board. Please revise your plans to reflect these comments with the understanding that further changes may be required. If you have any questions, please contact me at (201) 335-9300.

Sincerely,
Henningson, Durham & Richardson
Architecture and Engineering, P.C.
in association with HDR Engineering, Inc.

Laura A. Barca, P.E.
Project Manager

CC: Town and Village Planning Board Members
Maureen Evans, Village Planning Board Secretary
Connie Sardo, Planning Board Secretary
HDR Project No. 10100561, Task No. PB180

August 1, 2019

Village of Warwick Planning Board
Chairman George Aulen
77 Main St
Warwick, NY 10990

Re: Village View Cluster Subdivision

Dear Chairman Aulen:

I am writing this letter regarding the proposed Village View Cluster Subdivision. We reside on Locust St. and will be directly impacted by this development.

We have been attending meetings since August of 2018 regarding this subdivision which has changed at least twice since last year.

Some of the same issues and questions we had with the previous plan still apply and have not been answered as we had believed that they would be.

DEIS Narrative dated 6/5/2018 as well as the Full Appendix Village View DEIS Final there are several points of concern:

1) Flora and Fauna. Under F. Flora and Fauna in the DEIS it states that the site visits took place in April and September of 2005. Endangered and /or State Protected species of animals were not found on site however it is now 2019, thirteen (13) years later. Should that site not be revisited ?

   In Table 12 of the Full Appendix Village View DEIS Final under Expected or Observed Reptiles and Amphibians there is no mention of any turtles. Having lived on Locust St. with the stream in our back yard for the past 35 years we have had turtles in our yard so it would be expected that there could be turtles in the wetland portion of the proposed subdivision.

2) Ground and Surface Water Resources Existing Conditions- This study was prepared in January of 2005. Also should be revisited and updated.

3) Stormwater Management - This is of particular concern as the stream bed culvert that runs behind our property has become quite swollen in heavy storms. With the loss of the vegetation and woodlands due to the construction of roads and sidewalks, driveways, etc. there is a potential for increased stormwater runoff onto our property. Presently in periods of heavy rain there is heavy water run off down Locust St. since there are no sewer drains . Many times rocks and debris end up on the street and in our driveway after such heavy rains.

4) Traffic- Locust St. is a rather narrow two lane road. With no sidewalks or paved shoulders it is difficult to walk our dogs on the street if traffic is coming both ways. One has to step off the roadway and onto neighboring lawns to let traffic pass. We can only imagine the difficulties with construction vehicles traveling the road. Daily there are many drivers traveling much faster than the posted 25 mph speed limit. There is also the constant danger of drivers we witness who do not stop at the stop

sign coming down the hill at the intersection of Sleepy Valley, Woodside and Locust. Adding at the very least 90 more vehicles on these roads would only increase the likelihood of accidents. This area is also used as a shortcut to bypass the heart of the Village. The traffic is not only of those who live in this neighborhood.

Data was only collected for the Traffic Study on 3 dates, two Thursdays and one Wednesday. One would think a Traffic Study would be collected for a continuous time period of at least a week to include weekends, Mondays and Fridays when traffic volumes might be heavier.

5) Wastewater Management- The DEIS states that the Village acknowledges that the storage and pump station currently have design flaws even though it was recently replaced in 2017. Adding 45 additional dwellings would only add to the problems currently encountered as well as increase our taxes if a new system is necessary in order to handle the Village View homes.

Also we now know that there will be phase 2of the subdivision into the adjoining property located in the Town which will magnify the issues of the wastewater management and traffic.

After the planning board meeting in June we spoke briefly with Kurt Rother outside regarding the traffic study. Kurt said no- there would not be a new study but that they would just be relooking at the study that was done. The board made mention and it was discussed at the July meeting, that there would be a new traffic study.

The June 17th Village Board meeting on page 7 of the minutes it states that the traffic study is being completely redone. So that is an issue of whether it is or it isn't.

Also we are aware that according to the June 4, 2019 From the Mayor's Office notice of the Wastewater Treatment Project/Tax Information that a major renovation has to occur to the system to the tune of 12 million dollars. This will be "one of the largest infrastructure projects in our recent history". We listened to the draft scope discussed at the July Planning Board meeting re: Village View where it was said that there would be no impact to the Village infrastructure.

Finally we would like to request that there be another public hearing on this subdivision before a decision is rendered.

Sincerely,

Donna Kipp,
Merritt Guy Kipp

Merritt Guy and Donna Kipp
25 Locust St.
Warwick, NY 10990

cc: Warwick Village Board

Kirk Rother: I understand what you're saying Mr. Cheney, I just…we don't see in your code where you can do what you're asking us to do. You'll be effectively having fee simple lots with a zero-lot line on one-side. Right, if we're going to just say make a right of way around here then create a lot line here.

Trustee Cheney: Right, ok.

Kirk Rother: So, your code doesn't seem to allow that. If you find otherwise and that's what you desire, that's perfectly fine too.

Trustee Patterson: But, with the ZBA approval you could do that, right? If you did a lot line change. You're talking about not having the setback in between.

Kirk Rother: Yes, I suppose we could. The ZBA would have to grant a variance. Actually, maybe, I would have to reread the code, the Planning Board may even the power to grant waivers for some of the bulk requirements, I don't know.

Trustee Cheney: And the other thing that comes to mind immediately is that this arrangement only we've only removed three units from the previous plan and there were significant concerns about traffic and pedestrian safety. This doesn't really appreciably change those thresholds and I would assume that the Planning Board would pick that up in their considerations and deliberations relative to the Environmental Impact Statement. Those were definitely serious concerns.

Kirk Rother: So, the traffic study is being completely redone, reanalyzed to the same level as it was originally done, all the same intersections. Not only with this proposal, but we are including twenty-five additional homes that could be built in the Town in the traffic study. A comment this Board had had the last time I was here was related to your connective streets. You implied to have sidewalks on both sides. I have sidewalks on both sides of this plan.

So, the amount of open space on here is roughly 45% of the parcel, which is an increase of almost 10% of the prior plan. Now the way open space is defined in your code we shouldn't include areas allocated for stormwater management or grading. So, when I say 45% that's basically all that you see green here, green here, green here. I do have a pond, pond, some grading so as far as the definition of open space, it's around 35% when you subtract out the areas of the ponds.

Mayor Newhard: The last time that you showed us, you were making the comment that it was a 50% plan for open space.

Kirk Rother: Roughly, yes.

Hudson Valley Planning & Preservation
26 Laura Road, Monroe, NY 10950
(845)893-0134 Fax (845) 230-8749 Hudsonvalleyplanning.com

George Aulen, Chairman
Village of Warwick Planning Board
77 Main Street Warwick, NY 10990

Re: Village View Estates Cluster Subdivision, SEIS Scoping Document public comments

8/10/2019

Dear Chairman Aulen and members of the Board:

This letter is to respond to the public comments generated for the SEIS scope for the proposed Village View Subdivision proposal.

At this stage, our purpose of soliciting public comment is to consider those comments that would yield information useful to the Planning Board's review of the environmental impacts of the project and require a change to the Scoping Document for the SEIS.

We had a variety of comments on the proposed SEIS scope, many of which were related to the proposal and not the need for an additional study in the SEIS. We have no intention to be dismissive to any of the concerns raised by the public. However, the SEQRA process dictates that we hold onto these comments and respond to them in accordance with procedures outlined in SEQRA. Once the SEIS has been subject to public hearing, any public comments submitted not related to the scope of the SEIS would be required to be disclosed in the FEIS and would have appropriate responses. It is my current understanding that the intention is to combine the FEIS into one that responds to the questions and comments raised in the DEIS and SEIS, so that a clear picture of the project, any concerns and questions can be fully understood.

As mentioned before the SEIS, is meant to supplement information in the DEIS that resulted because of changes in the project. The board determined that the changes in the layout and the potential street access are the driving force behind this SEIS. The Village and Town also agreed that it would be acceptable to study the additional housing created in the Town in accordance to the Town's subdivision and zoning regulations, since it was felt that the new Town road would encourage the subdivision of the parcel, and could potentially affect traffic and drainage patterns.

A summary of each letter, and changes that were made to the scope follow:

1. Letter from Barbara Hilly: Most of the comments are not related to the scope, with exception of the wildlife comment. There will be new information in the SEIS regarding the wildlife and fauna on site completed by a licensed ecologist, who was also retained to look at the study that was in the DEIS and provide a formal opinion. This was already part of the scope, and no changes were made.

2. Letter from Raymond and Lugene Maher: The new intersection for the new road and Woodside Drive were examined as part of the traffic study in the DEIS, however, additional information regarding the configuration of the new road and the surrounding area will be included in the SEIS as requested**. A change to the scope was made in Section III-G.**

3. Letter from Jon Desrats: The commenter mentions site distance on Woodside Drive as a potential hazard for pedestrians. Site distances were part of the DEIS, however with the expanded discussion of the Intersection, site distance will be discussed in the SEIS. While the applicant is not required to put sidewalks on Woodside Drive, the new subdivision will have sidewalks on both sides of the road. **Changes were made to the scope in Section III-G.**

4. Letter from Mary Ann Buckley: The SEIS will provide updates, if any on the sewer and water districts that will eventually serve the new housing constructed in the Village. This is already planned as part of the SEIS, no changes to the scope is required. The SEIS will also be required to summarize and include a copy of the Stormwater Protection and Pollution Protection Plan, (SWPPP), which has changed because of the layout, and the need to include additional runoff that would come from the Town. All other statements are not related to the scope. No changes are required to the scope as a result of the comments.

5. Letter from Merritt Guy and Donna Kipp: The Flora and Fauna study was revisited by a licensed ecologist while he was in the field looking at the parcel within the Town, and these updates will be provided in the SEIS. Per DEC state standards for studies for developments such as these, Flora and Fauna Studies focus more on the preservation of higher quality habitats rather than create inventories of observed species. In the current plan, the sensitive habitat has been better preserved with more generous buffers and with no road crossings over the stream. No changes to the scope are recommended. The new SWPPP is required to consider changes in the drainage patterns that would affect sensitive habitat and wetlands were there may be turtles. No changes to the SEIS scope are recommended.

Ground and water studies like the one referenced in the DEIS, are carried out by municipalities, and require a significant undertaking of time and resources. No changes to the SEIS scope are recommended.

The SEIS will include an updated SWPPP that is required to conform to State and Village Standards. No changes to the scope of the SEIS are recommended.

The traffic study was performed by a professional traffic engineer, in accordance with methods acceptable to the profession. No changes are recommended to the scope of the SEIS.

The SEIS will provide any updates to the plans to improve sewer conveyance, no changes are required of the scope.

All other comments are not relevant to the scope of the SEIS.

6. Letter from HDR, Laura Barca, P.E. Town Engineer.

Comment 1 requested that a description of the permit be included in the SEIS and will be done. No change to the scope required.

Comment 2: All areas in Section III of the SEIS will address the development in the Town, and if there is no change, the reader will be informed. No change to the scope required.

Comment 3 and 4: The full SWPPP and Traffic Study will be included in the Appendix of the SEIS, no changes are required of the Scope.

Comment 5: The SEIS will provide a description of any planned changes to Locust Street. **This was added to the Scope of the SEIS in Section III-G.**

Comment 6: The SEIS scope was changed to remove these statements after her review to leave the discussion open if necessary. No change is required to the current scope.

Other comments offered by the Town Engineer are not related to the scoping document.

7. Letter from Greenplan, Theodore Fink, Town Planner

Comments 1 and 2: **The SEIS will discuss the impact of the potential development on the Town of Warwick zoning provisions, and the Ridgeline overlay district in Section III-H.**

Comment 3: The Town planner requested that we include a discussion of the fiscal impact analysis of the planned road once it is constructed, in terms of cost of maintenance vs. taxes generated to cover the costs prior to establishment of the houses. This was added to the SEIS scope after the review by the Town Planner, and prior to the submission to the Village Board. No changes to the scope are required.

Comment 4: The SEIS scope was changed to remove these statements after the Town Planner's review to leave the discussion open if necessary. No change is required to the current scope. We included the alternative to discuss options that would be available to the applicant if the site plan and special use permit for the proposed Town Road are not approved in the Alternatives Section prior to submission of the scope to the Village, no changes to the scope are necessary.

The revised scope is attached, with changes highlighted in red and underlined. Feel free to contact me with any comments or questions regarding this review.

Sincerely yours,

Susan Roth, AICP
Hudson Valley Planning and Preservation.

Attachments: Revised SEIS scope dated August 10th, 2019

pee. 7/15/19

2 Valley View Circle
Warwick, NY. 10990

July 10, 2019

Village of Warwick
Planning Board
Main Street
Warwick, NY. 10990

Re: Village View Proposed Development

After attending the Village of Warwick Planning Board meeting last night, July 9, 2019, I came away with many concerns. Since citizens are not permitted to speak and many times can barely hear or see proposals, the level of frustration to current homeowners is quite high.

1. Has there been a specific study by an impartial, qualified agency to determine the effect of sewer flow from the existing neighborhood when these new homes are added? The current sewer plant according to information published by our Mayor is in "serious need of rehabilitation or a new plant is needed". It has not been determined how long this situation will take to rectify. I believe I heard correctly last night, as the myriad of checklist items were read, that our DPW will be laying the sewer lines for this development. Time spent serving this new development will take DPW resources away from current residents. Are new hirings going to be needed?

2. Has there been a study by an impartial, qualified agency to determine the adequacy of water supply? Our Valley View neighborhood currently has notoriously low water pressure. How do we really know how 65 new homes will effect water supply until after the fact?

3. It was stated last night that there will be increased ground water flow into the existing stream. After living in this neighborhood since 1973, I can tell you this is going to be a serious flooding threat to homes down Locust Street. Certain times of the year the stream runs like a rapid. In fact, after heavy rains a steady flow of water comes right down the middle of Sleepy Valley Road/Locust Street.

4. Allowing this large scale development is changing the look and feel of this part of the Village as it exists today. Perhaps if it was just kept to the original plan for 25 or so houses, it would not take the currently proposed FIVE YEARS of building upheaval from "7AM to 7PM". Its almost like building a new village within the village. For what purpose?

I am grateful to have lived in this beautiful part of the village for 46 years and it is difficult to foresee this drastic change to our environment.

Yours truly,

Mary Ann Buckley

Mary Ann Buckley

Gmail **Susan Roth <susanrothaicp@gmail.com>**

FW: Resident comments re: Village View

1 message

MaureenE <Planning@villageofwarwick.org> Mon, Jul 22, 2019 at 10:07 AM
To: Kirk Rother <krother@kirkrother.com>, Susan Roth <susanrothaicp@gmail.com>
Cc: Dave Getz <Getz@lehmangetz.com>, "Robert J. Dickover" <Robert.Dickover@dddllplaw.com>

From: Raina Abramson
Sent: Monday, July 22, 2019 10:05 AM
To: MaureenE
Cc: Michael Newhard
Subject: FW: Resident comments re: Village View

Good morning Maureen.

Please forward the below email to the Planning Board regarding Village View.

Thank you,

Raina

From: Desrats, Jon <Desrats.Jon@bcg.com>
Sent: Sunday, July 21, 2019 9:00 AM
To: Raina Abramson <clerk@villageofwarwick.org>
Cc: Michael Newhard <mayor@villageofwarwick.org>
Subject: Resident comments re: Village View

Dear Raina,

Would you please redirect this email to the Planning Board and cc: Village Board?

My name is Jon Desrats. My wife and four children reside at 49 Woodside Drive. We are expressing our concern about the proposed Village View entrance on Woodside Drive. The proposed entrance to Village View is ~100ft from our home and is in a very dangerous location. When the development was initially proposed years ago, the Village and Planning boards realized this danger and had the entrance relocated. There are several factors that make the entrance such a danger and need to be addressed.

1) There are two road elevations changes within 100 yards of the entrance which create blinds spots for drivers to see pedestrians, cars entering Woodside and other hazards.

June 25, 2019

Dear Chairman Aulen and Village Planning Board Members,

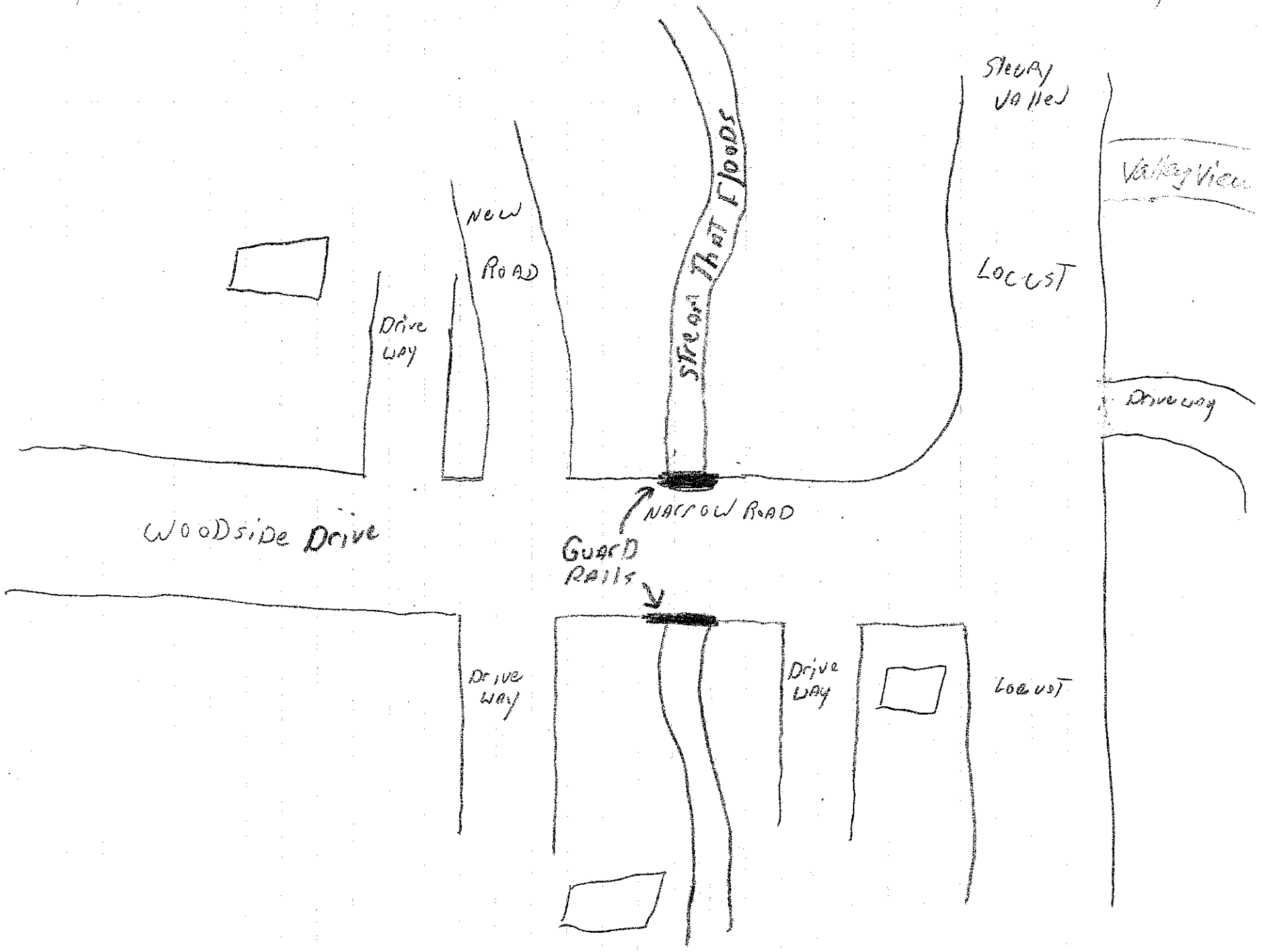
We are writing about the Village View Estates development.

Attached is a drawing of what the roads and area around the neighborhood on Locust St. and Woodside Drive will look like if the proposed Village View development is approved by the Village Planning Board (and the Village Board).

As you can see, the development, with the roads and number of proposed dwellings (42), and the proximity of these to the stream, several resident's driveways and the intersection of Locust and Woodside, in addition to the narrowness of Woodside Drive at this location, creates a dangerous situation for auto and pedestrian traffic. This will very likely be exacerbated in bad weather or emergency response situations.

We once again ask the Village Planning Board (and the Village Board) to carefully and cautiously assess the impact this development will have on safety. Thank you.

Regards,
Raymond and Lugene Maher


Sleepy Valley
Valley View
New Road
Stream that floods
Locust
Drive way
Driveway
Narrow Road
Woodside Drive
Guard Rails
Drive way
Drive way
Locust

2) The lack of sidewalks will put pedestrians in dangerous situations. The width of Woodside Drive at the entrance is not wide enough sometimes for two cars to pass, let alone children walking alongside the road.

3) The 25 MPH speed limit is not observed or enforced. I walk with my family and dog daily on Woodside Drive and often witness cars passing by in excess of 40 MPH.

I urge for your consideration and support to relocate the Village View entrance. The current location is an accident waiting to happen.

Thank you,

Jon Desrats

Julie Desrats

Lauren Desrats

Kristen Desrats

Megan Desrats

Matthew Desrats

Appendix C: Flora and Fauna

Indiana and Northern long-eared Bat
Habitat Suitability Assessment Report

Village View Estates
Woodside Drive
Village of Warwick, Orange County, NY

December 16, 2018
Revised July 10, 2019

Prepared by:

Michael Nowicki
Ecological Solutions, LLC
1248 Southford Road
Southbury, CT 06488
(203) 910-4716

1.0 INTRODUCTION

The project involves the construction of 31 - single family residences and 5 - two family residences in the Village of Warwick with stormwater ponds and a proposed Town Road connecting to Sleepy Valley Road in the Town of Warwick. The site is in the Village is 20.3 acres of site area and the site in the Town is 76.3 acres for a total of 96.6 acres (*Figure 1*).

According to the New York State Department of Environmental Conservation (NYSDEC) Environmental Resource Mapper (*Attachment 1*) the project is located near an area native to the New York State endangered Indiana bat (*Myotis sodalis*) and Northern long-eared bat (*Myotis septentrionalis*). The majority of the existing project site is scrub/shrub and upland forest habitat with minor areas of successional old field. A site habitat assessment was completed in 2006 for the Draft Environmental Impact Statement for the proposed project. A review of the site in 2018 and 2019 showed no relative changes to habitat with trees and vegetation in the same condition now as in 2006 with similar species and sizes as described previously.

A Habitat Suitability Assessment was completed for the Indiana and Northern long-eared bat on December 10, 2018 and June 27, 2019 to determine whether suitable habitat for these species was present on the site which includes land in the Village and Town.

2.0 HABITAT SUITABILITY ASSESSMENT

2.1 Indiana bats

The Indiana bat typically hibernates in caves/mines in the winter and roosts under bark or in tree crevices in the spring, summer, and fall. Suitable potential summer roosting habitat is characterized by trees (dead, dying, or alive) or snags with exfoliating or defoliating bark, or containing cracks or crevices that could potentially be used by Indiana bats as a roost. The minimum diameter of roost trees observed to date is 2.5 inches for males and 4.3 inches for females. However, maternity colonies generally use trees greater than or equal to 9 inches dbh. Overall, roost tree structure appears to be more important to Indiana bats than a particular tree species or habitat type. Females appear to be more habitat specific than males presumably because of the warmer temperature requirements associated with gestation and rearing of young. As a result, they are generally found at lower elevations than males may be found. Roosts are warmed by direct exposure to solar radiation, thus trees exposed to extended periods of direct sunlight are preferred over those in shaded areas. However, shaded roosts may be preferred in very hot conditions. As larger trees afford a greater thermal mass for heat retention, they appear to be preferred over smaller trees.

Streams associated with floodplain forests, and impounded water bodies (ponds, wetlands, reservoirs, etc.) where abundant supplies of flying insects are likely found provide preferred foraging habitat for Indiana bats, some of which may fly up to 2-5 miles from upland roosts on a regular basis. Indiana bats also forage within the canopy of upland forests, over clearings with early successional vegetation (*e.g.,* old fields), along the borders of croplands, along wooded fencerows, and over farm ponds in pastures. While Indiana bats appear to forage in a wide variety of habitats, they seem to tend to stay fairly close to tree cover.

Approximately 80 percent of the site is thick scrub/shrub habitat that is almost impenetrable on foot with a tangle of mutliflora rose, dogwood, small red cedars, and brambles. Few trees are located here and there were no potential roosts or maternal colony trees observed here. A small area of young aged upland hardwoods consisting of red maple, birch, red cedar and other successional species measuring about 2-6 inches dbh exists at the western boundary of the site and another small wooded section occurs north of Woodside Drive and contains maples, oaks, and black cherry also in the 2-6 inch dbh range. The trees within the wooded areas did not contain the characteristics described above (peeling bark, holes, cracks, crevices) associated with bat roosting or maternal colonies. Several large ash, oak, maple, and walnut are located on the west side of Locust Street with trees exceeding 30 inches dbh and with some crevices and holes potentially suitable for use by this species. None of these trees will be impacted and no development is proposed here or in the adjacent wetland.

Approximately 19.7 acres of the site (The Village View subdivision located both in the Town and Village of Warwick will disturb approximately 7 acres in the Town and 13.2 acres in the Village. Of the disturbance within the Town approximately 6.5 acres are wooded. The entire 13.2 acres in the Village is wooded.) will be impacted for the development. There were no trees that were observed in the proposed impact areas that contained the characteristics that associated with roosting or maternal colony trees. However, forest areas can be used for foraging by the Indiana bat as well as the Northern long-eared bat.

Conclusion – The site is considered to possess potential foraging habitat for the Indiana bat because there are suitable habitat components for foraging as described in the literature review that exist on the site (wetlands, edge habitat, canopy). The trees observed in the proposed development area are generally second growth and young aged with a fairly uniform canopy layer and did not contain the elements associated with suitable roosting or maternal colony locations such as exfoliating bark, good solar exposure, or noticeable holes or cracks. However, the edges between habitats are probably potential foraging habitat.

The construction the proposed development will include such activities as tree clearing and grubbing, earth moving, and paving over a total of about 19.7 acres of wooded area. These activities will result in effects including: loss of trees (foraging habitat), generation of dust and noise, potential for changes to surface water quality, increased lighting on the site, and increased human activity on the currently vacant property.

The project sponsor proposes to avoid, minimize, and mitigate for these effects by:

• Implementing tree clearing during timeframes when bats are not resident on the site October 1 – to March 31;
• Preserving the wetlands on the site to the maximum extent possible which can potentially be used by bats as travel corridors;
• Implementing soil conservation and dust control best management practices, such as watering dry disturbed soil areas to keep dust down, and using staked, recessed silt fence and anti tracking pads to prevent erosion and sedimentation in surface waters on the site;
• Street lighting on the site will use Village of Warwick Planning Board approved light fixtures that have tops that direct light down to minimize light pollution and not interfere with potential bat foraging activities.
• Prior to clearing, the limits of proposed clearing will be clearly demarcated on the site with orange construction fencing (or similar) to prevent inadvertent overclearing of the site, and;
• Stormwater pond/s will not be maintained with any chemicals that might adversely affect bats or insect populations on which they may feed.

These measures will result in minimizing potential adverse effects to Indiana bats as well as Northern long-eared bats that have a similar niche as the Indiana bat.

2.2 Northern long-eared bat

Winter Habitat: Same as the Indiana bat northern long-eared bats spend winter hibernating in caves and mines, called hibernacula. They typically use large caves or mines with large passages and entrances; constant temperatures; and high humidity with no air currents. Specific areas where they hibernate have very high humidity, so much so that droplets of water are often seen on their fur. Within hibernacula, surveyors find them in small crevices or cracks, often with only the nose and ears visible.

Summer Habitat: During summer, northern long-eared bats roost singly or in colonies underneath bark, in cavities, or in crevices of both live and dead trees. Males and non-reproductive females may also roost in cooler places, like caves and mines. This bat seems opportunistic in selecting roosts, using tree species

based on suitability to retain bark or provide cavities or crevices. It has also been found, rarely, roosting in structures like barns and sheds.

Feeding Habits: Northern long-eared bats emerge at dusk to fly through the understory of forested hillsides and ridges feeding on moths, flies, leafhoppers, caddisflies, and beetles, which they catch while in flight using echolocation. This bat also feeds by gleaning motionless insects from vegetation and water surfaces.

Conclusion - The northern long eared bat requires/occupies practically the same habitat niche as the Indiana bat. The tree clearing timeframe and additional conservation measure proposed for the Indiana bat are appropriate for the northern long eared bat so that no adverse effect to this species will occur.

3.0 PHOTOGRAPH

General wooded area of site to be impacted

Figure 1 Location Map

Appendix D: Traffic Study

ENGINEERS
PLANNERS
SURVEYORS

June 21, 2019

Mr. Kirk Rother, PE
Consulting Engineer, PLLC
5 Saint Stephens Lane
Warwick, New York 10990

RE: Traffic Impact Evaluation, Village View Subdivision, Locust Street, Village of Warwick, Orange County, New York; CM Project No. 118-010

Dear Mr. Rother:

Creighton Manning Engineering, LLP (CM) has conducted a traffic assessment for the proposed development of the *Village View Subdivision* located along Locust Street in the Village of Warwick. The proposed development consists of 42 homes – 32 detached, single-family and 10 two-family homes. This evaluation is based on information provided in the site plan prepared by your office and is included under Attachment A. In addition, a sensitivity analysis has been prepared to evaluate the traffic impacts of the adjacent property, if it were developed in the future as 25 single-family homes.

1.0 Project Description

The project includes the construction of a residential subdivision with 42 homes on a site previously approved for 28 units. Access to the site is proposed via one full access roadway that will extend into the Town of Warwick on property owned by the applicant to Sleepy Valley Road approximately 0.4 miles north of Woodside Drive, and an additional access road on Woodside Drive located approximately 250 feet south of Locust Street in the Village of Warwick. The proposed project is expected to be completed and fully occupied in 2021. The study area is shown in Figure 1.

2.0 Existing Conditions

Roadways Serving the Site

Sleepy Valley Road is a local road that runs primarily in an east-west fashion from NY Route 17A/94 (as Locust Street in the Village) to West Ridge Road in the Town of Warwick. Sleepy Valley Road is a two-lane road with one 10 to 11-foot wide travel lane in each direction and no paved shoulders. There are no sidewalks on this section of Sleepy Valley Road and the posted speed limit is 25-mph in the Village as Locust Street, 30 mph in the Town. The pavement condition is generally good in the vicinity of the site with minor edge cracking and longitudinal cracking.

Woodside Drive is an urban local road traveling in a north-south direction between Grand Street (CR-1) and Locust Street. In the project vicinity, Woodside Drive is a two-lane road with one 12-foot wide travel lane in each direction and no paved shoulders. No sidewalks are provided on Woodside Drive and the posted speed limit is 25-mph. The pavement condition on Woodside Drive is generally good in the vicinity of the site with minor edge cracking and longitudinal cracking.

Study Area Intersection

The Locust Street/Woodside Drive intersection is a three-leg intersection operating under stop

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control on all approaches. A single lane is provided on all approaches for shared travel movements. No sidewalks or crosswalks are provided.

The Locust Street/NY Route 17A/94 (Maple Avenue) intersection is a three-leg intersection operating under stop control on the eastbound Locust Street approach. A single lane is provided on all approaches for shared travel movements. No sidewalks or crosswalks are provided.

The Grand Street (CR-1)/NY Route 17A/94 (Maple Avenue) intersection is a three-leg intersection operating under stop control on the eastbound Grand Street (CR-1) approach. A single lane is provided on all approaches for shared travel movements. Sidewalks are provided on both sides of NY Route 17A/94 (Maple Avenue) as well as the south side of Grand Street (CR-1). A marked crosswalk with curb ramps and detectable warning is provided across Grand Street (CR-1); there are no accommodations to cross NY Route 17A/94 (Maple Avenue).

The Grand Street (CR-1)/Woodside Drive intersection is a three-leg intersection controlled by a stop sign on the Woodside Drive approach. A single lane is provided on all approaches for shared travel movements. A sidewalk is provided on the north side of Grand Street (CR-1) with a marked crosswalk across the Woodside Drive approach.

The Grand Street (CR-1)/Crescent Avenue intersection is a four-leg intersection operating under all way stop control. A single lane is provided on all approaches for shared travel movements. Sidewalks are provided on the west side of Crescent Avenue and north side of Grand Street (CR-1). A marked crosswalk is present across the west leg of the intersection, but we believe the north leg also had a marked crosswalk at one time, but has since worn away.

Transit

Transit service in the study area is provided by the Town of Warwick which provides a local shuttle bus through the Town including the Villages of Warwick, Florida, Greenwood Lake, and Pine Island. Service is available seven days a week with three to five shuttle trips per day.

Data Collection

Turning movement counts were conducted at the study area intersections on Thursday January 25, 2018 and Thursday February 1, 2018 during the morning peak period from 7:00 to 9:00 a.m. and on Wednesday January 24, 2018 and Thursday February 1, 2018 during the afternoon peak period from 4:00 to 6:00 p.m. which coincides with peak operating conditions of the site and adjacent street traffic. The raw turning movement count data is included under Attachment B. The existing peak hour traffic volumes are shown on Figure 2 and form the basis for all traffic forecasts.

Accident Analysis

Accident data was requested from NYSDOT to determine accident trends at the study area intersections and on the roadway segments within the study area. Accident summaries and details were provided by the NYSDOT Safety and Information Management System for the latest five years of available data from the period between September 1, 2012 and August 31, 2017 and are included in Attachment C. The accidents were reviewed to quantify the number of accidents and identify any abnormal accident patterns or concentrations. The predominant accident types for the study area intersection and roadway segments are summarized in Table 1.

Table 1 – Accident Location and Type

Intersections and Segments	Collision Severity				Collision Type									
	Non-Reportable	Property Damage	Injury	Fatality	Rear-End	Right Angle	Left Turn	Right Turn	Head On	Overtaking/Sideswipe	Fixed Object/Animal	Pedestrian	Other	Total
Locust Street/Woodside Drive Intersection	0	1	1	0	0	0	0	0	0	1	1	0	0	**2**
Locust Street – Rt 17A/94 to Fern Place	0	0	1	0	0	0	0	0	0	0	1	0	0	**1**
Locust Street/NY Route 17A/94 Intersection	1	4	1	0	2	1	0	0	0	1	2	0	0	**6**
NY Route 17A/94 – Locust St to Grand St	11	44	16	0	26	7	6	3	1	11	12	3	2	**71**
Grand Street (CR-1)/NY Route 17A/94 Intersection	5	17	3	0	12	5	1	0	0	5	1	0	1	**25**
Grand Street – Rt 17A/94 to Crescent Ave	5	4	2	1	3	0	1	0	0	2	3	1	2	**12**
Grand Street (CR-1)/Woodside Drive Intersection	2	0	1	0	1	0	0	0	0	0	2	0	0	**3**
Grand Street (CR-1)/Crescent Avenue Intersection	0	2	1	0	0	0	0	0	0	0	1	1	1	**3**
Woodside Drive Locust St to Grand St	1	2	0	0	0	0	0	0	0	1	1	0	1	**3**
Total	**25**	**74**	**26**	**1**	**44**	**13**	**8**	**3**	**1**	**21**	**24**	**5**	**7**	**126**

As shown in the table, there were 126 total accidents within the study area, most of which occurred on NY Route 17A/94 given the higher traffic volumes. Rear end collisions were the predominant collision type, accounting for 44 of the 126 crashes (35%) with driver inattention and following too closely being the common contributing factors. There were five pedestrian crashes in the study area of which three occurred on NY Route 17A/94 (Maple Avenue), two on Grand Street (CR-1). There was one fatal crash in the study area, which occurred on Grand Street west of Van Duzer Place, presumably at or near the mid-block crossing, due to the driver's failure to yield the right of way. In the other cases, failure to yield on the part of the driver was cited in two cases, while pedestrian's error/confusion was cited in the remaining two cases.

3.0 Traffic Assessment

Trip Generation

Trip generation determines the quantity of traffic expected to travel to and from a given site. The Institute of Transportation Engineers' (ITE) *Trip Generation*, 10th Edition, is the industry standard used for estimating trip generation for proposed land uses based on data collected at similar uses. The trip generation for the proposed project was estimated using land use code (LUC) 210 for Single Family Detached Housing. Table 2 summarizes the trip generation estimate for the AM and PM peak hours. It is noted that the site received approval for construction of 28 units in 2008. The estimated trip generation has been included in Table 2 for comparison purposes.

Table 2 –Trip Generation Summary

Land Use	LUC	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
Approved Village View Subdivision – 28 Units	210	6	19	25	19	11	30
Proposed Village View Subdivision – 42 Units	**210**	**9**	**26**	**35**	**28**	**16**	**44**
Net Increase		**+3**	**+7**	**+10**	**+9**	**+5**	**+14**

Table 2 shows that the site will generate 35 new trips during the AM peak hour (9 entering and 26 exiting) and 44 new trips during the PM peak hour (28 entering and 16 exiting). When compared to the approved 28-unit subdivision, this equates to 10 additional trips during the AM peak hour and 14 additional trips during the PM peak hour.

Further, this magnitude of traffic is less than the NYSDOT and ITE threshold of 100 site generated vehicles on any one approach for off-site intersection analysis. This guidance was developed as a tool to identify locations where the magnitude of traffic generated has the potential to impact operations at off-site intersections and screen out locations from requiring detailed analysis that do not reach the 100-vehicle threshold and are unlikely to require mitigation. Although the trip generation is well below the NYSDOT and ITE threshold, the detailed traffic evaluation for this project included the above five study area intersections in addition to the proposed site driveway intersections.

Future Traffic Volumes

To evaluate the impact of the proposed development, traffic projections were prepared for the expected year of completion. Full build-out of the project is expected in the year 2021. Traffic volume data from the 2005 John Collins Engineers, P.C. report prepared for the original *Village View* subdivision, was compared to the 2018 existing traffic volumes at the study are intersections. The data indicates that traffic volumes at the Grand Street (CR-1)/NY Route 17A/94 (Maple Avenue) intersection have increased by 1.0% per year during the AM peak hour and decreased by 1.3% per year during the PM peak hour, an average decrease of 0.2%. Volumes at the Locust Street/NY Route 17A/94 (Maple Ave) intersection have increased by 0.37% per year during the AM peak hour and decreased by 0.53% per year during the PM peak hour, average decrease of 0.1%. To provide a conservative estimate, traffic projections were prepared for the anticipated year of completion (2021) by applying a ½ percent per year growth rate for three years to the 2018 existing traffic volumes.

In addition to general background traffic growth, vehicle trips associated with other developments in the project area were considered. Traffic volumes associated with a previously approved 16-unit residential subdivision (single family homes – Zadeh Drive) located south of the W. Ridge Road/Sleepy Valley Road intersection were included in the future traffic volume projections. No other developments were noted by the Village or Town in this area.

The 2021 No-Build traffic volumes are shown on Figure 3 and represent expected traffic volumes in 2021 without construction of the *Village View Subdivision*.

Traffic generated by the proposed project was distributed to the adjacent roadways based on existing observed travel patterns in the project area and probable travel routes for residents

of the proposed development. Based on the existing regional travel patterns, it is expected that approximately 30 percent of the proposed development traffic will travel to and from the north on NY Route 17A/94 while approximately 50 percent will travel to and from the south on NY Route 17A/94. The remaining 20 percent of site generated traffic will travel to and from the west with 10 percent using Locust Street and 10 percent using Grand Street (CR-1). The trip distribution patterns and associated site-generated traffic volumes for the proposed development are shown on Figures 4 and 5. The site-generated trips were added to the 2021 No-Build traffic volumes, resulting in the 2021 Build traffic volumes for the weekday AM and PM peak hours (Figure 6).

Traffic Operations

Intersection Level of Service (LOS) and capacity analysis relate traffic volumes to the physical characteristics of an intersection. Intersection evaluations were made using Synchro Software Version 10 which automates the procedures contained in the *Highway Capacity Manual* (HCM-6th edition). Table 3 summarizes the results of the level of service calculations for the proposed project. The detailed level of service analyses are included under Attachment D.

Table 3 – Level of Service Summary

Intersection		Control	AM Peak Hour			PM Peak Hour		
			2018 Existing	2021 No-Build	2021 Build	2018 Existing	2021 No-Build	2021 Build
Locust Street/ Woodside Drive		U						
Locust Street EB	TR		A (7.0)	A (7.1)	A (7.1)	A (6.9)	A (7.0)	A (7.1)
Locust Street WB	LT		A (7.6)	A (7.6)	A (7.7)	A (7.4)	A (7.5)	A (7.6)
Woodside Drive NB	LR		A (6.5)	A (6.6)	A (6.6)	A (7.2)	A (7.2)	A (7.2)
Locust Street/NY Route 17A/94 (Maple Avenue)		U						
Locust Street EB	LR		B (11.1)	B (11.3)	B (11.7)	B (13.9)	B (14.3)	B (14.9)
NY Route 17A/94 NB	LT		A (8.1)	A (8.1)	A (8.1)	A (8.6)	A (8.6)	A (8.7)
Grand Street (CR-1)/NY Route 17A/94		U						
Grand Street EB	LR		C (16.3)	C (16.7)	C (17.2)	D (26.5)	D (28.7)	D (30.3)
NY Route 17A/94 NB	LT		A (8.6)	A (8.6)	A (8.6)	A (9.1)	A (9.2)	A (9.2)
Grand Street (CR-1)/Woodside Drive		U						
Grand Street (CR-1) EB	LT		A (7.4)	A (7.4)	A (7.4)	A (7.9)	A (7.9)	A (7.9)
Woodside Drive SB	LR		B (10.6)	B (10.6)	B (10.7)	B (11.3)	B (11.3)	B (11.4)
Grand Street (CR-1)/Crescent Avenue		U						
Grand Street (CR-1) EB	LTR		A (8.3)	A (8.3)	A (8.4)	A (8.0)	A (8.0)	A (8.1)
Grand Street (CR-1) WB	LTR		A (8.2)	A (8.2)	A (8.2)	A (8.8)	A (8.8)	A (8.9)
Crescent Avenue NB	LTR		A (7.7)	A (7.7)	A (7.7)	A (7.4)	A (7.4)	A (7.4)
Crescent Avenue SB	LTR		A (7.9)	A (7.9)	A (8.0)	A (8.0)	A (8.0)	A (8.0)
Woodside Drive/Site Driveway		U						
Site Driveway EB	LR				A (8.7)			A (8.9)
Woodside Drive NB	LT				A (7.3)			A (7.3)
Sleepy Valley Road/Site Driveway		U						
Locust Street WB	LT				A (7.3)			A (7.3)
Site Driveway NB	LR				A (8.7)			A (8.8)

EB, WB, NB, SB = Eastbound, Westbound, Northbound, and Southbound intersection approaches
L, T, R = Left-turn, Through, and Right-turn movements
X (Y.Y) = Level of service (Average delay in seconds per vehicle)

The impact of the project can be described by comparing the analysis of the No-Build and Build operating conditions. The following observations are evident from this analysis:

- Locust Street/Woodside Drive – The level of service analysis indicates that all approaches will operate at LOS A through Build conditions during both peak hours with an increase in average delay of one second or less.

- Locust Street/NY Route 17A/94 (Maple Avenue) – The level of service analysis indicates that the northbound NY Route 17A/94 (Maple Avenue) left turn movement will operate at LOS A and the eastbound Locust Street approach operates at LOS B through Build conditions during both peak hours with an increase in delay less than one second during both peak hours.

- Grand Street (CR-1)/NY Route 17A/94 (Maple Avenue) – The level of service analysis indicates that the northbound NY Route 17A/94 (Maple Avenue) left turn movement will operate at LOS A through Build conditions during both peak hours. The eastbound Grand Street (CR-1) approach currently operates at LOS C during the AM peak hour and LOS D during the PM peak hour. This approach will continue to operate at the same level of service through build conditions with an average increase in delay of two seconds or less as a result of the project.

- Grand Street (CR-1)/Woodside Drive – The level of service analysis indicates that the eastbound Grand Street (CR-1) left turn movement will operate at LOS A through build conditions during both peak hours. The southbound Woodside Drive approach will operate at LOS B during both peak hours through the Build conditions with an increase in delay less than one second during both peak hours.

- Grand Street (CR-1)/Crescent Avenue – The level of service analysis indicates that all approaches will operate at LOS A through Build conditions during both peak hours with an increase in average delay of one second or less.

- Site Driveways – After construction of the *Village View Subdivision*, the site driveways are expected to operate at LOS A during both peak hours with average vehicle delays of approximately nine seconds or less. It is recommended that the Site Driveway operate under stop sign control with a single lane entering and exiting the site. Left turn movements into the site will also operate at LOS A during Build conditions for both peak hours.

Based on the expected intersection operations, the area roadways will have sufficient capacity to accommodate the projected traffic volumes. Sidewalks are proposed within the site to accommodate pedestrians.

Approved vs Proposed Subdivision

In accordance with the Village's current Cluster Subdivision regulations, the applicant has submitted a Special Use application to the Village Board requesting an increase in density up to 42 dwelling units. Under the 42-unit condition, the study area intersections all operate adequately for peak hour conditions with delay increases of 2 seconds or less, and most intersections increase less than one second; therefore, there will be little to no perceivable difference in traffic operations when comparing the approved 28-unit and proposed 42-unit subdivisions.

4.0 Sensitivity Analysis of Future Road Connections

The site plan currently proposes to connect the project to Sleepy Valley Road through parcels in the Town, which will allow for future development on said parcels. A concept plan of the development of Town parcels is included under Attachment A, labeled "Village View Town Parcel." There are no plans to develop the property at this time, but it is reasonable to consider

the development potential and resulting traffic impacts in the following sensitivity analysis.

Traffic Volumes

The potential build out of the Town parcels into 25 single-family homes will result in an additional 23 trips in the AM peak hour (6 entering, 17 exiting) and 27 trips in the PM peak hour (17 entering, 10 exiting). This traffic was distributed (Figure 7), assigned (Figure 8), and added to the Build traffic volumes following the development of the 42-units in the Village (Figure 9).

Results

Intersection Level of Service (LOS) and capacity analysis were performed for the 2021 relate traffic volumes to the physical characteristics of an intersection. Intersection evaluations were made using Synchro Software Version 10 which automates the procedures contained in the *Highway Capacity Manual* (HCM- 6th edition). Table 4 summarizes the results of the level of service calculations for the proposed project. The detailed level of service analyses are included under Attachment D.

Table 4 – Level of Service Summary

Intersection		Control	AM Peak Hour			PM Peak Hour		
			2021 No-Build	2021 Build	2021 Build w/ 25 units	2021 No-Build	2021 Build	2021 Build w/ 25 units
Locust Street/ Woodside Drive		U						
Locust Street EB	TR		A (7.1)	A (7.1)	A (7.2)	A (7.0)	A (7.1)	A (7.1)
Locust Street WB	LT		A (7.6)	A (7.7)	A (7.7)	A (7.5)	A (7.6)	A (7.7)
Woodside Drive NB	LR		A (6.6)	A (6.6)	A (6.7)	A (7.2)	A (7.2)	A (7.3)
Locust Street/NY Route 17A/94 (Maple Avenue)		U						
Locust Street EB	LR		B (11.3)	B (11.7)	B (11.9)	B (14.3)	B (14.9)	C (15.3)
NY Route 17A/94 NB	LT		A (8.1)	A (8.1)	A (8.2)	A (8.6)	A (8.7)	A (8.7)
Grand Street (CR-1)/NY Route 17A/94		U						
Grand Street EB	LR		C (16.7)	C (17.2)	C (17.5)	D (28.7)	D (30.3)	D (31.6)
NY Route 17A/94 NB	LT		A (8.6)	A (8.6)	A (8.7)	A (9.2)	A (9.2)	A (9.3)
Grand Street (CR-1)/Woodside Drive		U						
Grand Street (CR-1) EB	LT		A (7.4)	A (7.4)	A (7.4)	A (7.9)	A (7.9)	A (7.9)
Woodside Drive SB	LR		B (10.6)	B (10.7)	B (10.8)	B (11.3)	B (11.4)	B (11.5)
Grand Street (CR-1)/Crescent Avenue		U						
Grand Street (CR-1) EB	LTR		A (8.3)	A (8.4)	A (8.4)	A (8.0)	A (8.1)	A (8.1)
Grand Street (CR-1) WB	LTR		A (8.2)	A (8.2)	A (8.3)	A (8.8)	A (8.9)	A (8.9)
Crescent Avenue NB	LTR		A (7.7)	A (7.7)	A (7.7)	A (7.4)	A (7.4)	A (7.4)
Crescent Avenue SB	LTR		A (7.9)	A (8.0)	A (8.0)	A (8.0)	A (8.0)	A (8.0)
Woodside Drive/Site Driveway		U						
Site Driveway EB	LR			A (8.7)	A (8.7)		A (8.9)	A (8.9)
Woodside Drive NB	LT			A (7.3)	A (7.3)		A (7.3)	A (7.3)
Locust Street/Site Driveway		U						
Locust Street WB	LT			A (7.3)	A (7.3)		A (7.3)	A (7.3)
Site Driveway NB	LR			A (8.7)	A (8.7)		A (8.8)	A (8.7)

EB, WB, NB, SB = Eastbound, Westbound, Northbound, and Southbound intersection approaches
L, T, R = Left-turn, Through, and Right-turn movements
X (Y.Y) = Level of service (Average delay in seconds per vehicle)

The impact of the project can be described by comparing the analysis of the No-Build and Build operating conditions. The following observations are evident from this analysis:

- Locust Street/Woodside Drive – The level of service analysis indicates that all approaches will operate at LOS A through Build conditions during both peak hours with

an increase in average delay of one second or less.

- Locust Street/NY Route 17A/94 (Maple Avenue) – The northbound NY Route 17A/94 (Maple Avenue) left turn movement will operate at LOS A and the eastbound Locust Street approach operates at LOS B through Build conditions during the AM peak hour. During the PM peak hour, the additional 25 units will push the Locust Street eastbound approach just over the threshold into LOS C with a 0.4-second increase in average delay per vehicle. This is not considered significant; therefore, no mitigation is considered necessary.

- Grand Street (CR-1)/NY Route 17A/94 (Maple Avenue) – Each of the movements at this intersection will maintain the same levels of service through the Build conditions with increases in delays of about one second or less as a result of the 25-unit project.

- Grand Street (CR-1)/Woodside Drive – Each of the movements at this intersection will maintain the same levels of service through the Build conditions with increases in delays of less than one second.

- Grand Street (CR-1)/Crescent Avenue – The level of service analysis indicates that all approaches will operate at LOS A through Build conditions during both peak hours with an increase in average delay of one second or less.

- Site Driveways – After construction of the 25-unit subdivision, the site driveways are expected to operate at LOS A during both peak hours with average vehicle delays of approximately nine seconds or less. The site driveways will operate adequately under stop sign control with a single lane entering and exiting the site. Left turn movements into the site will also operate at LOS A during Build conditions for both peak hours.

Based on the expected intersection operations, the area roadways will have sufficient capacity to accommodate the cumulative development of the Village View Subdivision and the development of 25 units on the Town parcels.

5.0 Conclusions

The project includes the construction of a residential subdivision with 42 residential homes. Access to the site is proposed via one full access roadway to Sleepy Valley Road and an additional access road on Woodside Drive south of Locust Street. The proposed project is expected to be completed and fully occupied in 2021. The following is noted regarding the proposed project:

- The proposed project is expected to generate 35 new vehicle trips during the AM peak hour and 44 new vehicle trips during the PM peak hour. This magnitude of traffic does not call for detailed evaluation of off-site intersections based on NYSDOT and ITE guidelines; however, the detailed traffic evaluation for this project included five study area intersections in addition to the proposed site driveway intersections.
- The level of service analysis at the study area intersections indicates that all approaches will operate at the same level of service through Build conditions with no approach experiencing an increase in delay greater than two seconds. The existing traffic control at each intersection will accommodate traffic associated with the proposed site development. No mitigation is recommended.

- The Site Driveway on Woodside Drive and the Site Driveway on Sleepy Valley Road are both expected to operate at LOS A during both peak hours. It is recommended that the Site Driveways operate under stop sign control with a single lane entering and exiting the site.
- Given the very low delay increases, traffic from the proposed 42-unit subdivision will have little to no noticeable increase over the approved 28-unit subdivision.
- The road connection through the Town of Warwick parcels will allow for future development of additional lands. The build out of an additional 25 single-family residences will have no significant traffic impact on the surrounding road system. Would-be residents of *Village View* should be advised of the potential for future development.

Please call our office if you have any questions or comments regarding the above analysis.

Respectfully submitted,
Creighton Manning Engineering, LLP

Kenneth W. Wersted, P.E., PTOE
Associate

Jesse Vogl, AICP
Project Planner

Attachments

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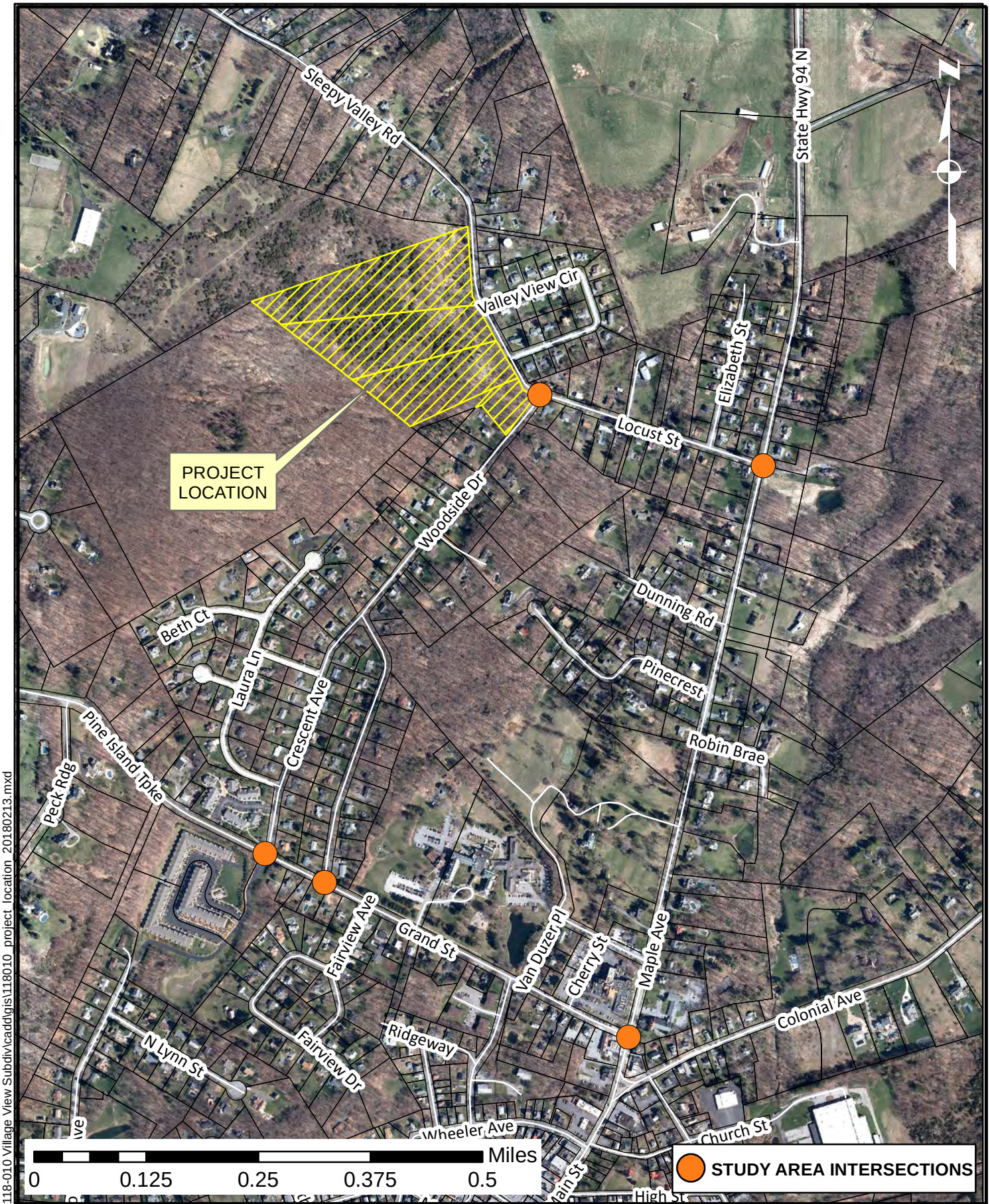

PROJECT LOCATION

VILLAGE VIEW SUBDIVISION
VILLAGE OF WARWICK, NEW YORK

Creighton Manning

PROJECT: 118-010	DATE: 6/2019	FIGURE: 1

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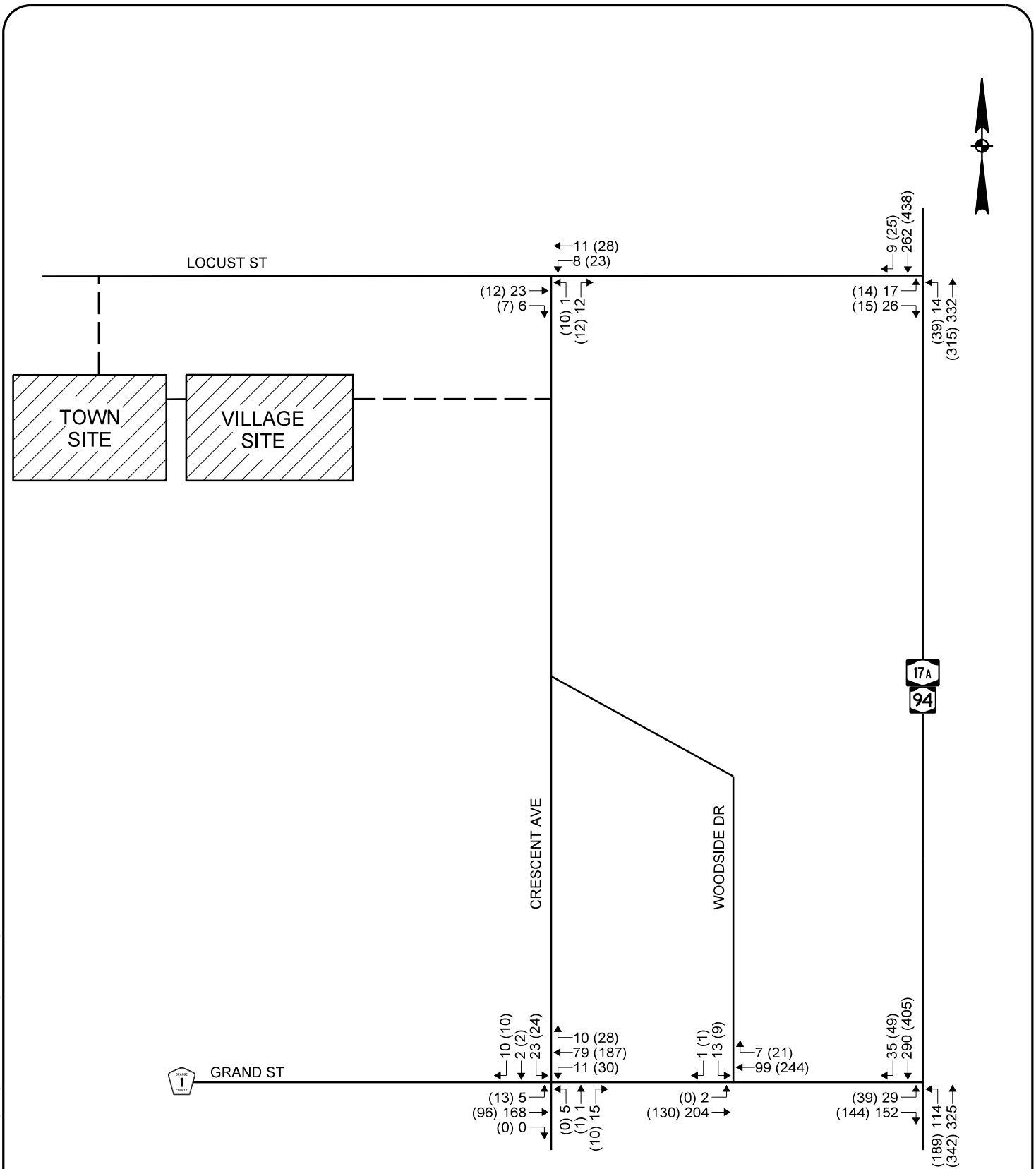

AM PEAK HOUR (PM PEAK HOUR)

2018 EXISTING
TRAFFIC VOLUMES

VILLAGE VIEW SUBDIVISION
VILLAGE OF WARWICK
ORANGE COUNTY, NEW YORK

Creighton Manning

PROJECT:	118-010	DATE:	06/2019	FIGURE:	2

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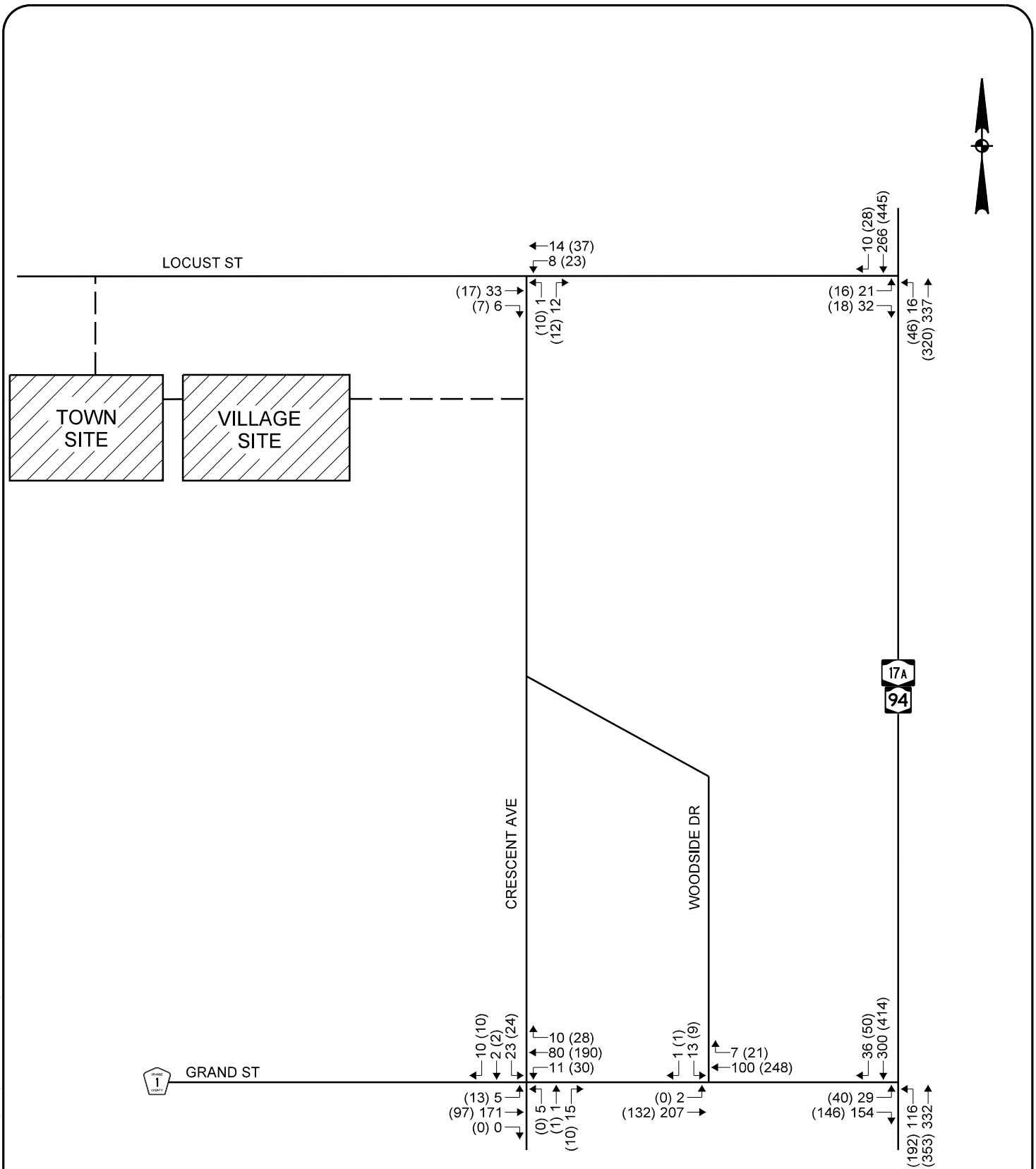

AM PEAK HOUR (PM PEAK HOUR)

2021 NO-BUILD
TRAFFIC VOLUMES

VILLAGE VIEW SUBDIVISION
VILLAGE OF WARWICK
ORANGE COUNTY, NEW YORK

Creighton Manning

PROJECT: 118-010	DATE: 06/2019	FIGURE: 3

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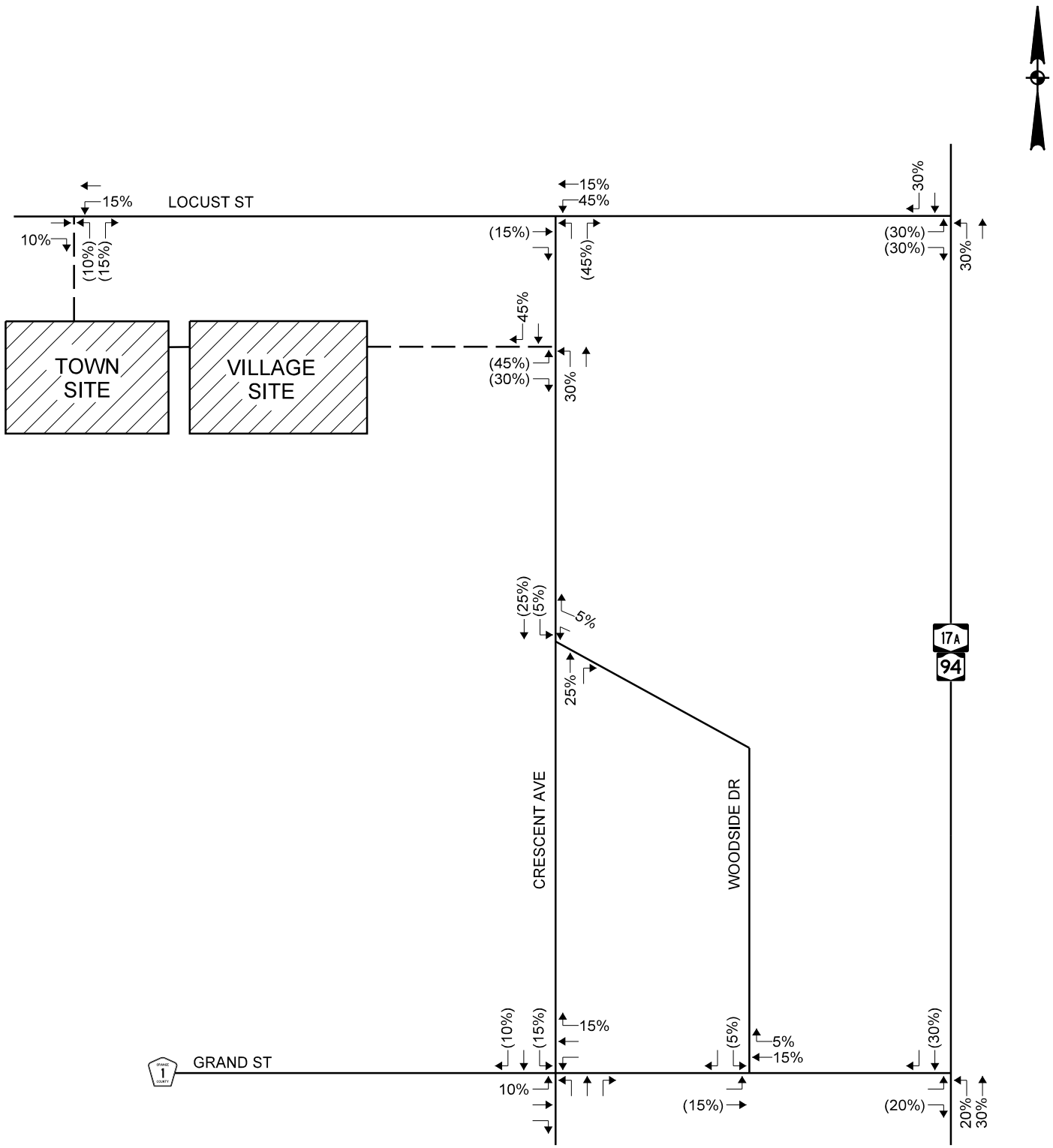


ENTER (EXIT)

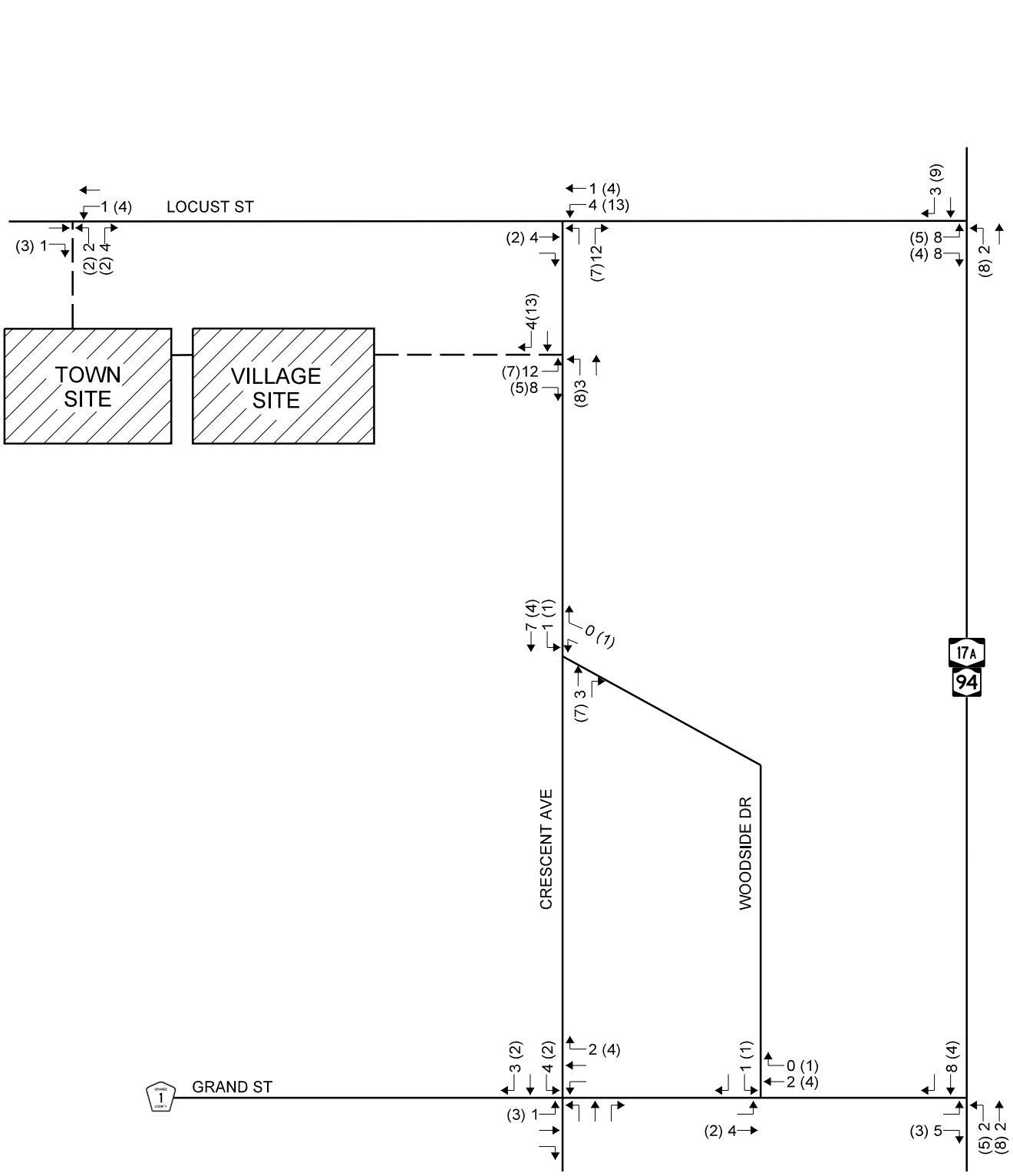
TRIP DISTRIBUTION

VILLAGE VIEW SUBDIVISION
VILLAGE OF WARWICK
ORANGE COUNTY, NEW YORK

Creighton Manning

PROJECT: 118-010	DATE: 06/2019	FIGURE: 4

N:\Projects\2018\118-010 Village View Subdiv\cadd\dgn\figures\118-010_fig_trdf_01.dgn



AM PEAK HOUR (PM PEAK HOUR)

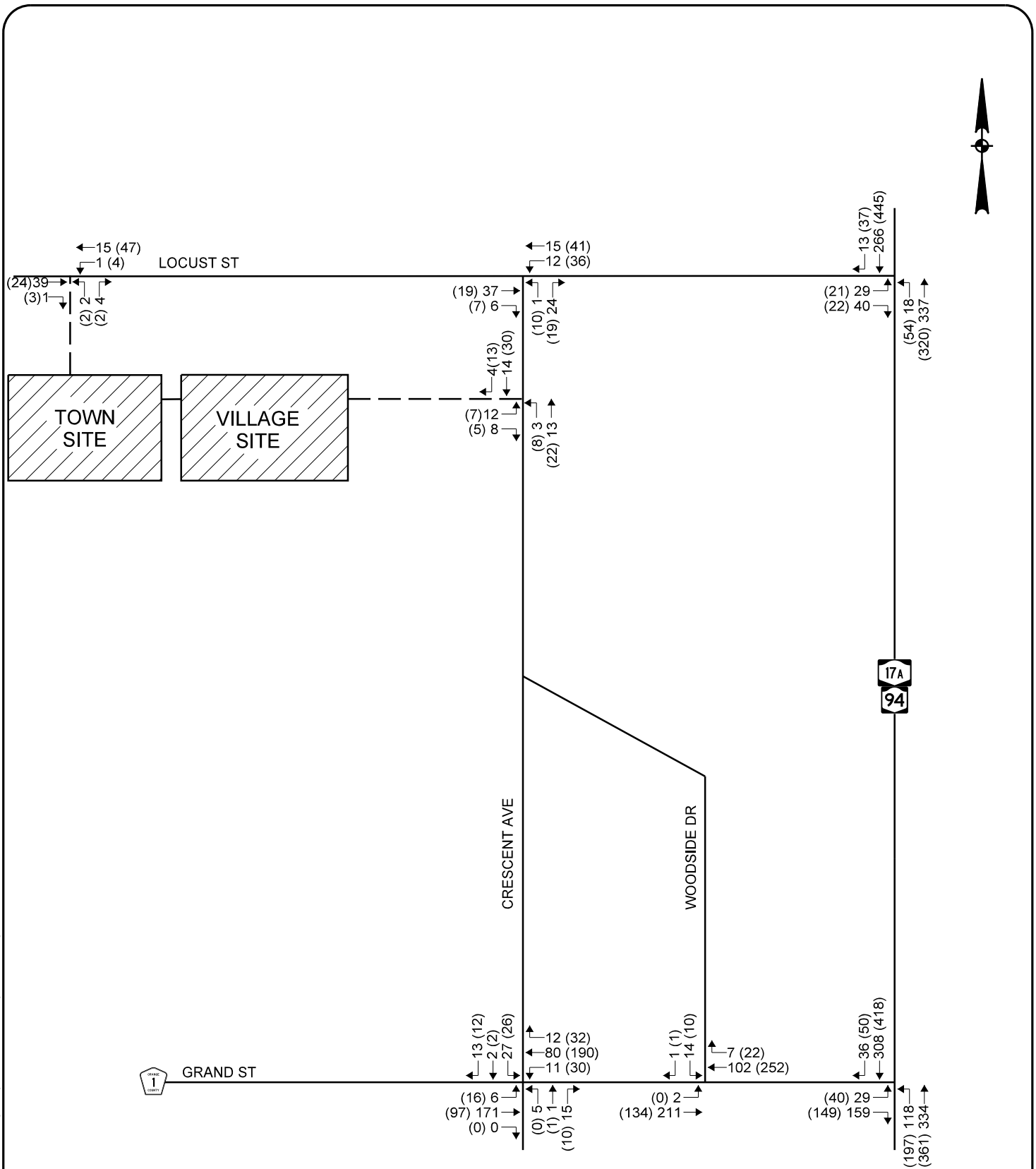
TRIP ASSIGNMENT

VILLAGE VIEW SUBDIVISION
VILLAGE OF WARWICK
ORANGE COUNTY, NEW YORK

Creighton Manning

PROJECT:	118-010	DATE:	06/2019	FIGURE:	5

N:\Projects\2018\118-010 Village View Subdiv\cadd\dgn\figures\118-010_fig_traf_01.dgn



AM PEAK HOUR (PM PEAK HOUR)

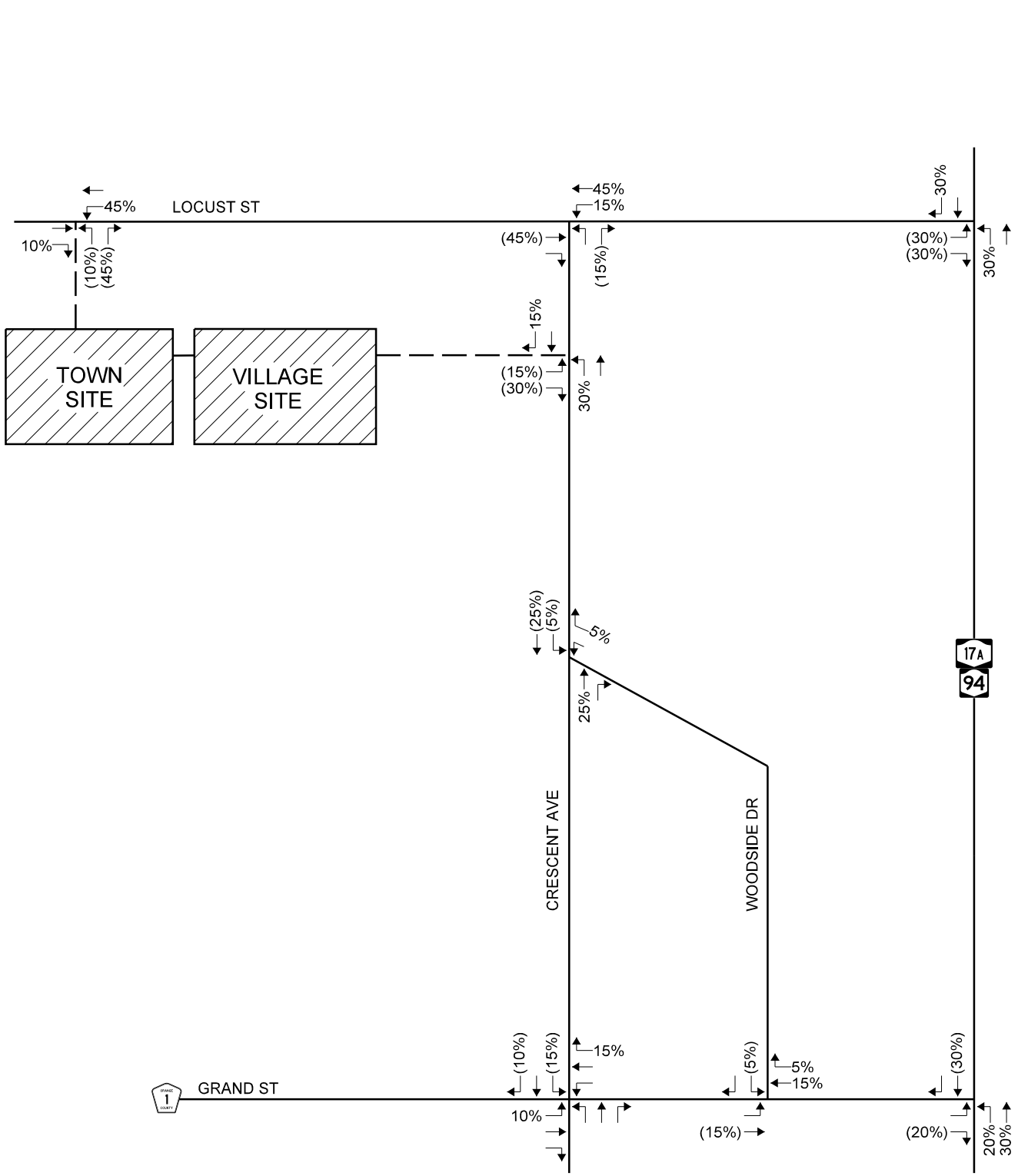
2021 BUILD
TRAFFIC VOLUMES

VILLAGE VIEW SUBDIVISION
VILLAGE OF WARWICK
ORANGE COUNTY, NEW YORK

Creighton Manning

PROJECT:	118-010	DATE:	06/2019	FIGURE:	6

N:\Projects\2018\118-010 Village View Subdiv\cadd\dgn\figures\118-010_fig_traf.01.dgn



ENTER (EXIT)

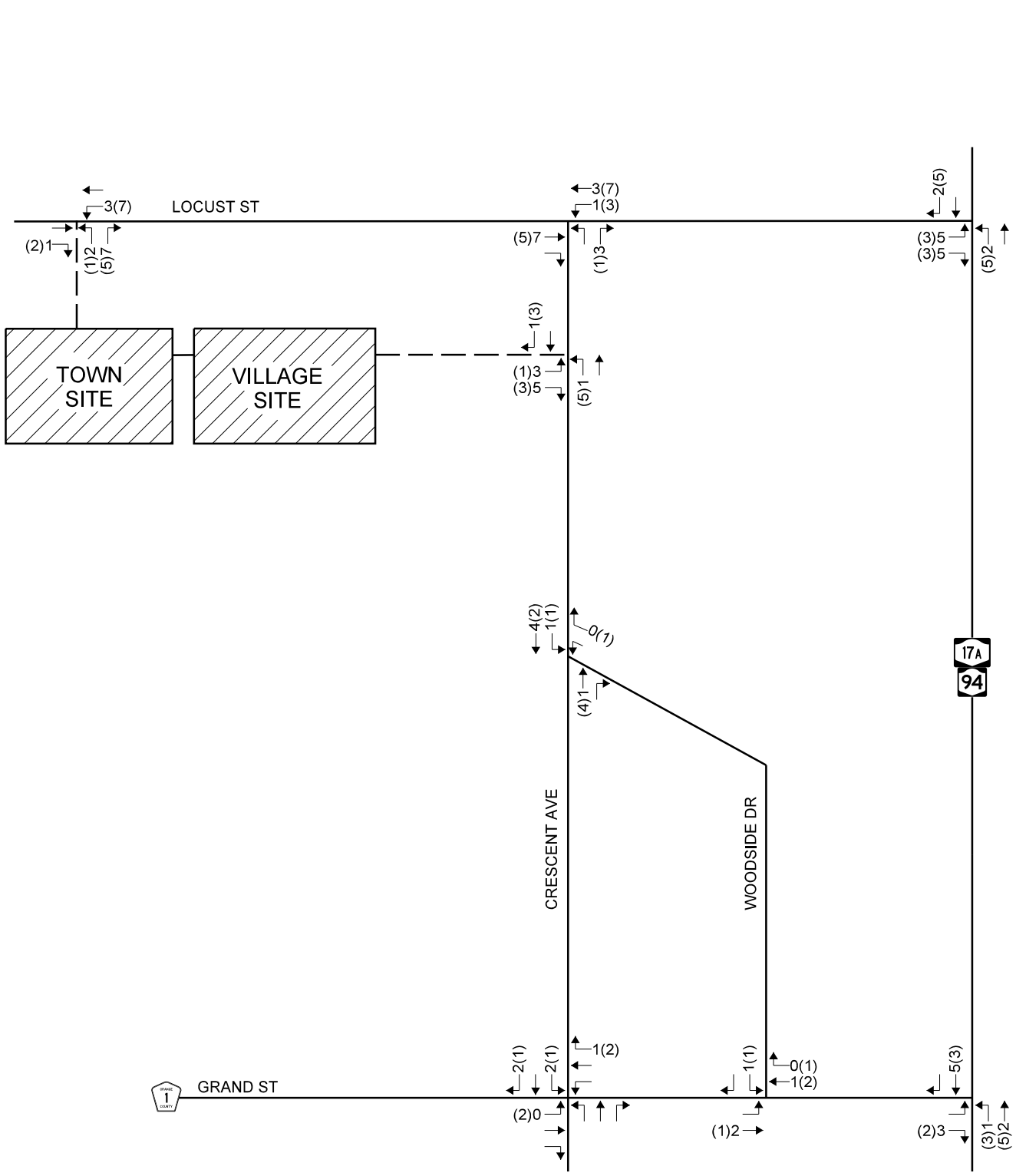
SENSITIVITY TRIP DISTRIBUTION

VILLAGE VIEW SUBDIVISION
VILLAGE OF WARWICK
ORANGE COUNTY, NEW YORK

Creighton Manning

PROJECT: 118-010	DATE: 06/2019	FIGURE: 7

N:\Projects\2018\118-010 Village View Subdiv\cadd\dgn\figures\118-010_fig_trdf_01.dgn



AM PEAK HOUR(PM PEAK HOUR)

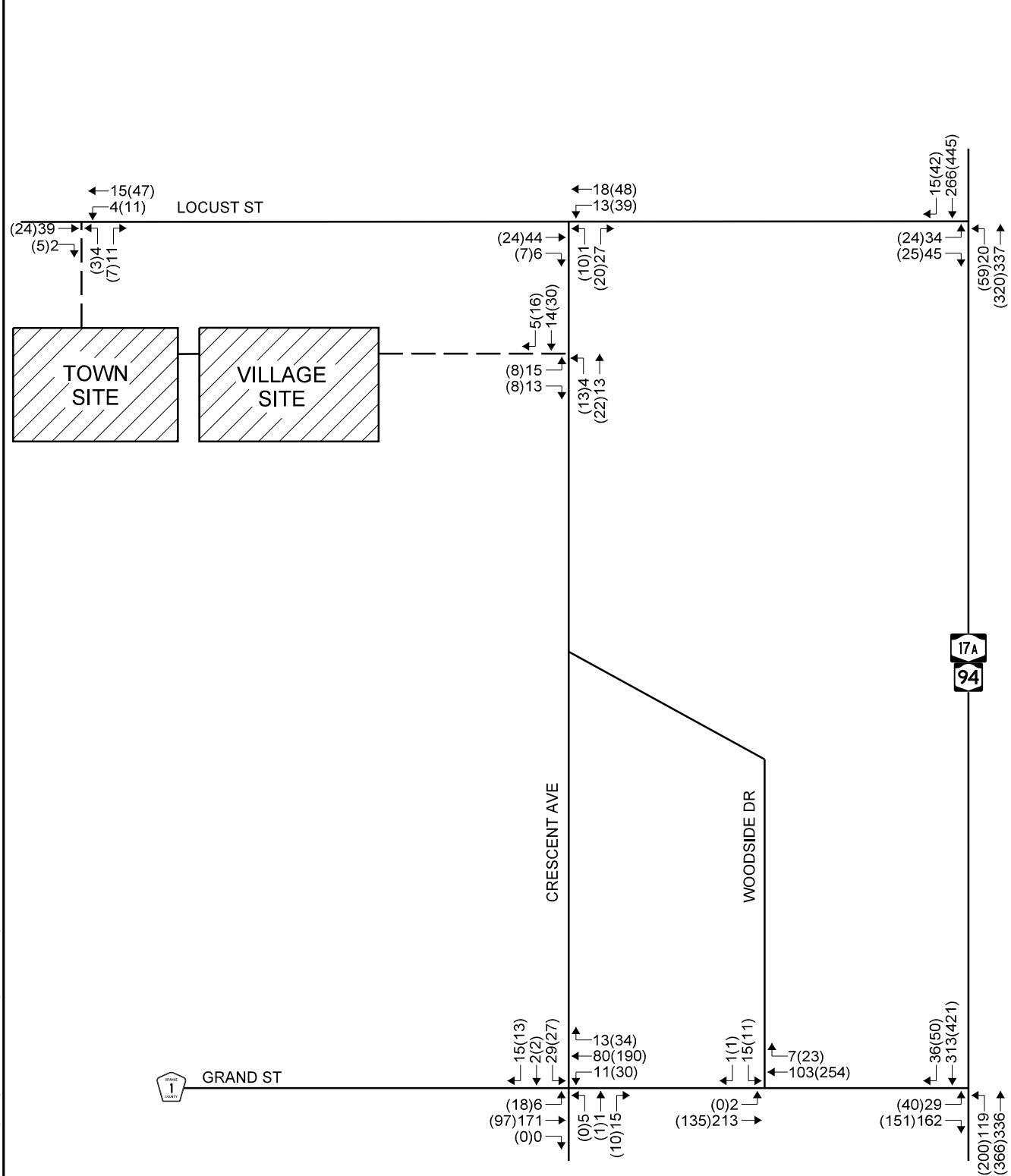
SENSITIVITY TRIP ASSIGNMENT

VILLAGE VIEW SUBDIVISION
VILLAGE OF WARWICK
ORANGE COUNTY, NEW YORK

Creighton Manning

PROJECT:	118-010	DATE:	06/2019	FIGURE:	8

N:\Projects\2018\118-010 Village View Subdiv\cadd\dgn\figures\118-010_fig_trdf_01.dgn



AM PEAK HOUR(PM PEAK HOUR)

2021 SENSITIVITY BUILD,
TRAFFIC VOLUMES

VILLAGE VIEW SUBDIVISION
VILLAGE OF WARWICK
ORANGE COUNTY, NEW YORK

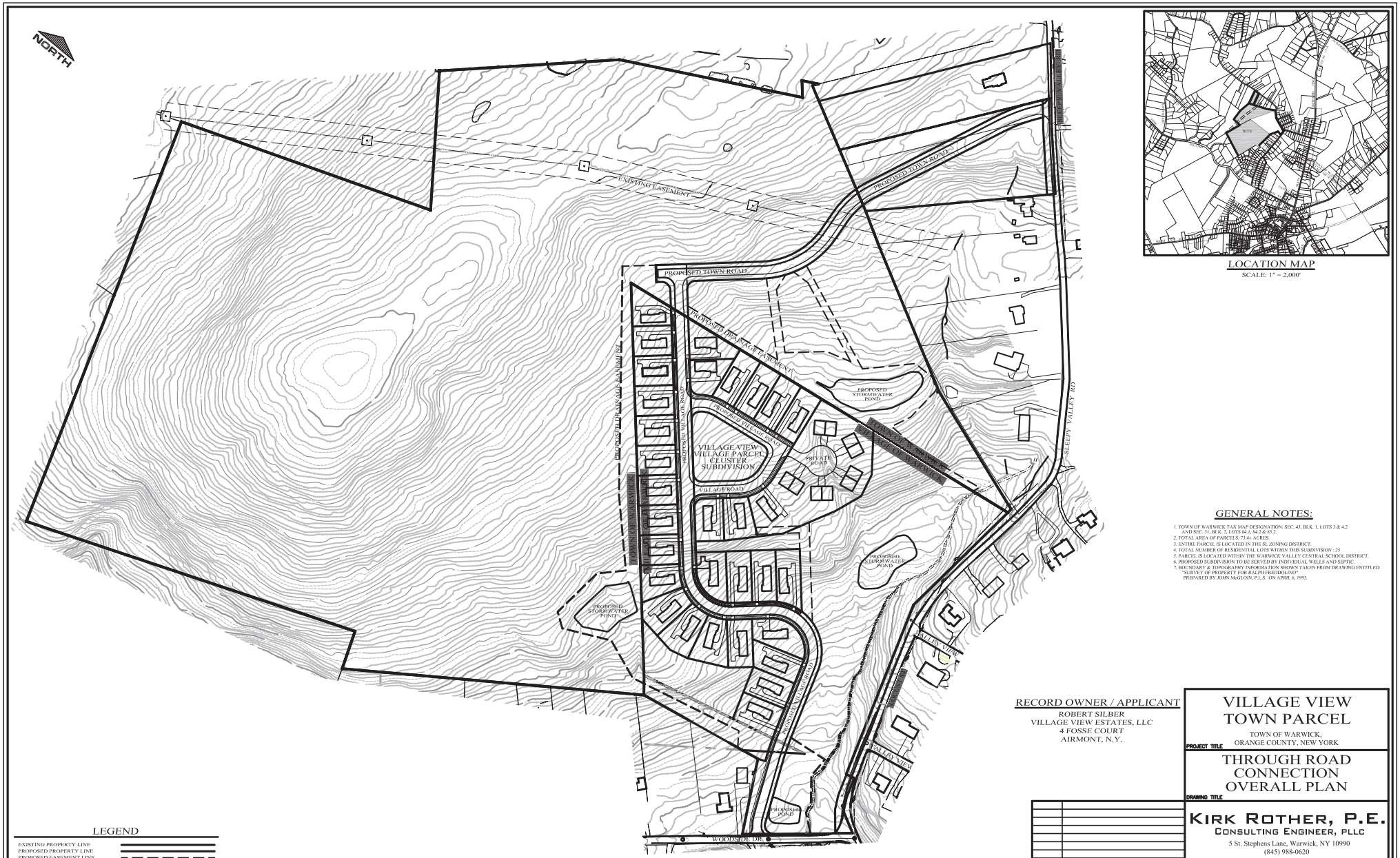
Creighton Manning

PROJECT: 118-010	DATE: 06/2019	FIGURE: 9

N:\Projects\2018\118-010 Village View Subdiv\cadd\dgn\figures\118-010_fig_trraf.01.dgn

Attachment A
Site Plan

Village View Subdivision
Village of Warwick, New York



LOCATION MAP

SCALE: 1" = 2,000'

GRAPHIC SCALE

120 0 60 120 240 480

(IN FEET)

1 inch = 120 ft.

LEGEND

- EXISTING PROPERTY LINE
- PROPOSED PROPERTY LINE
- PROPOSED EASEMENT LINE
- USDA SOIL TYPE LINE
- PROPOSED BUILDING SETBACK
- EXISTING STONEWALL
- PROPOSED EDGE OF PAVEMENT
- EXISTING EDGE OF PAVEMENT
- EXISTING WETLAND LIMIT
- EXISTING STREAM

GENERAL NOTES:

1. TOWN OF WARWICK TAX MAP DESIGNATION: SEC. 43, BLK. 1, LOTS 3 & 4.2 AND SEC. 31, BLK. 2, LOTS 84.1, 84.2 & 85.2.
2. TOTAL AREA OF PARCELS: 73.4± ACRES.
3. ENTIRE PARCEL IS LOCATED IN THE SL ZONING DISTRICT.
4. TOTAL NUMBER OF RESIDENTIAL LOTS WITHIN THIS SUBDIVISION : 25
5. PARCEL IS LOCATED WITHIN THE WARWICK VALLEY CENTRAL SCHOOL DISTRICT.
6. PROPOSED SUBDIVISION TO BE SERVED BY INDIVIDUAL WELLS AND SEPTIC.
7. BOUNDARY & TOPOGRAPHY INFORMATION SHOWN TAKEN FROM DRAWING ENTITLED: "SURVEY OF PROPERTY FOR RALPH FREDDOLINO" PREPARED BY JOHN McGLOIN, P.L.S. ON APRIL 6, 1993.

RECORD OWNER / APPLICANT

ROBERT SILBER
VILLAGE VIEW ESTATES, LLC
4 FOSSE COURT
AIRMONT, N.Y.

VILLAGE VIEW TOWN PARCEL

PROJECT TITLE

TOWN OF WARWICK,
ORANGE COUNTY, NEW YORK

THROUGH ROAD CONNECTION OVERALL PLAN

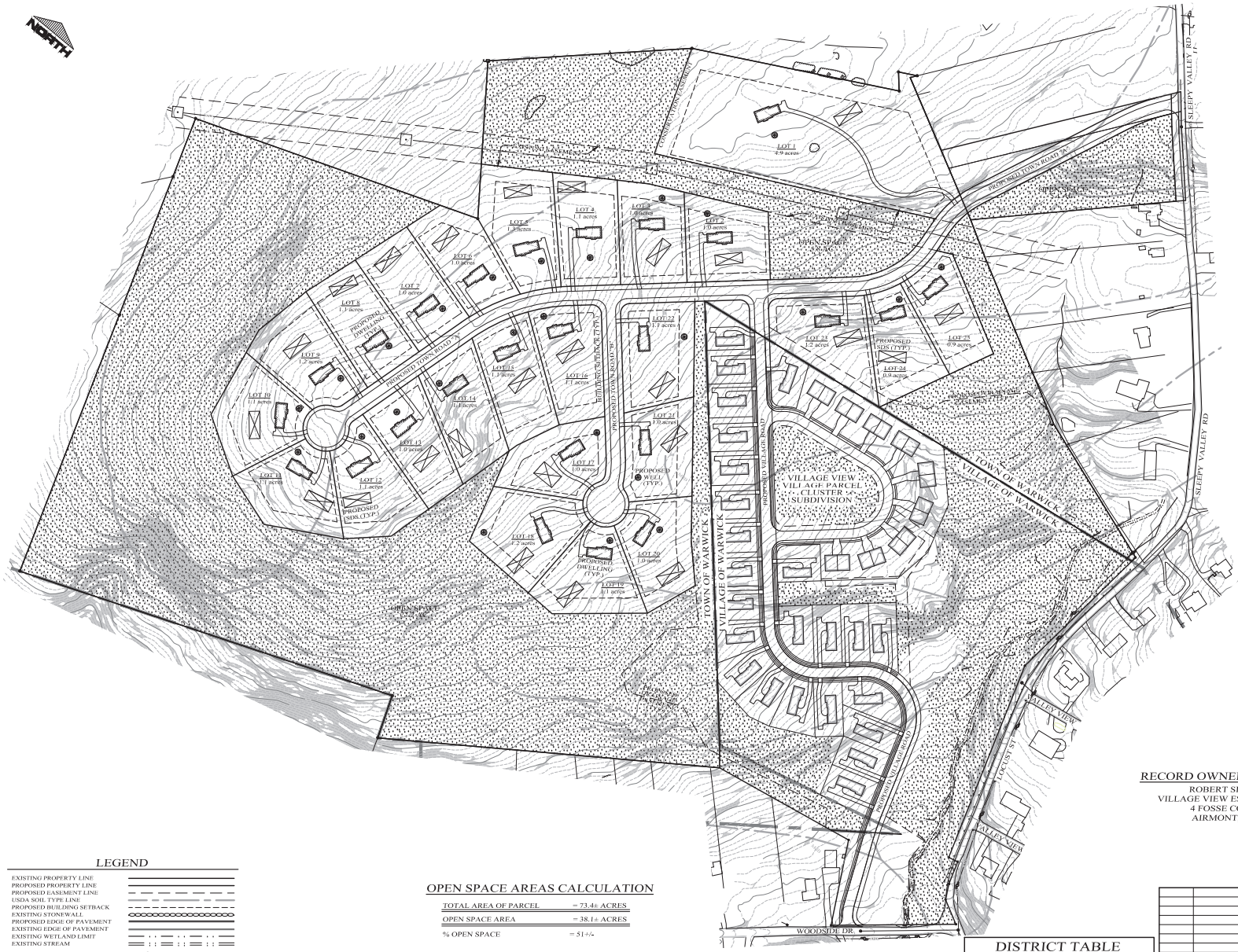
DRAWING TITLE

DATE	REVISIONS
04-22-19	INITIAL PREPARATION

KIRK ROTHER, P.E.
CONSULTING ENGINEER, PLLC
5 St. Stephens Lane, Warwick, NY 10990
(845) 988-0620

KIRK ROTHER, P.E. N.Y.S. LIC. NO. 079053 DATE

D.O.T. SHEET #	D.E.C. SHEET #	O.C.H.D. SHEET #	SHEET #
N.A.	N.A.	N.A.	1 OF 3
CAD # 04170 CLUS 4-19	PROJECT # 04170.0	SCALE AS SHOWN	



LOCATION MAP
SCALE: 1" = 2,000'

BULK REQUIREMENTS
SL ZONE
CLUSTER DEVELOPMENT

	MINIMUM REQUIRED
LOT AREA (S.F.)	12,500
LOT WIDTH (FT.)	80
STREET FRONTAGE (FT.)	20
FRONT YARD (FT.)	20
REAR YARD (FT.)	40
ONE SIDE YARD (FT.)	10
BOTH SIDE YARDS (FT.)	20
PRINCIPAL BLDG. SEPARATION (FT.)	30

	MAXIMUM ALLOWED
BUILDING HEIGHT (FT.)	35
LOT COVERAGE (%)	35

GENERAL NOTES:

1. TOWN OF WARWICK TAX MAP DESIGNATION: SEC. 43, BLK. 1, LOTS 3 & 4.2 AND SEC. 31, BLK. 2, LOTS 84.1, 84.2 & 85.2.
2. TOTAL AREA OF PARCELS: 73.4± ACRES.
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6. PROPOSED SUBDIVISION TO BE SERVED BY INDIVIDUAL WELLS AND SEPTIC.
7. BOUNDARY & TOPOGRAPHY INFORMATION SHOWN TAKEN FROM DRAWING ENTITLED: "SURVEY OF PROPERTY FOR RALPH FREDDOLINO" PREPARED BY JOHN McGLOIN, P.L.S. ON APRIL 6, 1993.

LEGEND

- EXISTING PROPERTY LINE
- PROPOSED PROPERTY LINE
- PROPOSED EASEMENT LINE
- USDA SOIL TYPE LINE
- PROPOSED BUILDING SETBACK
- EXISTING STONEWALL
- PROPOSED EDGE OF PAVEMENT
- EXISTING EDGE OF PAVEMENT
- EXISTING WETLAND LIMIT
- EXISTING STREAM
- CONCEPTUAL WELL LOCATION
- CONCEPTUAL SDS LOCATION
- CONCEPTUAL OPEN SPACE
- SLOPES > 25%

OPEN SPACE AREAS CALCULATION

TOTAL AREA OF PARCEL	= 73.4± ACRES
OPEN SPACE AREA	= 38.1± ACRES
% OPEN SPACE	= 51+/-

GRAPHIC SCALE
120 0 60 120 240 480
(IN FEET)
1 inch = 120 ft.

DISTRICT TABLE

TRADITIONAL NEIGHBORHOOD OVERLAY	YES
RIDGELINE OVERLAY	YES
AQUIFER PROTECTION OVERLAY	NO
AGRICULTURAL PROTECTION OVERLAY	NO
BIODIVERSITY CONSERVATION OVERLAY	NO

RECORD OWNER / APPLICANT
ROBERT SILBER
VILLAGE VIEW ESTATES, LLC
4 FOSSE COURT
AIRMONT, N.Y.

VILLAGE VIEW TOWN PARCEL
TOWN OF WARWICK,
ORANGE COUNTY, NEW YORK
PROJECT TITLE

CONCEPT CLUSTER SUBDIVISION PLAN
DRAWING TITLE

KIRK ROTHER, P.E.
CONSULTING ENGINEER, PLLC
5 St. Stephens Lane, Warwick, NY 10990
(845) 988-0620

DATE	REVISIONS
04-22-19	INITIAL PREPARATION

KIRK ROTHER, P.E. N.Y.S. LIC. NO. 079053 DATE

D.O.T. SHEET #	D.E.C. SHEET #	O.C.H.D. SHEET #	SHEET #
N.A.	N.A.	N.A.	1 OF 1
CAD # 04170 CLUS 4-19	PROJECT # 04170.0	SCALE AS SHOWN	

Attachment B
Turning Movement Counts

Village View Subdivision
Village of Warwick, New York

TRI-STATE TRAFFIC DATA

www.TSTData.com
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Warwick, NY
Locust Street @ Woodside Drive
Thursday, February 1, 2018
Location: 41.270888, -74.358962

Count Name: LOCUST STREET @ WOODSIDE DR
Site Code: 02
Start Date: 02/01/2018

Turning Movement Data

Start Time	LOCUST ST Westbound					WOODSIDE DR Northbound					LOCUST ST Southbound					Int. Total
	Left	Right	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	
7:00 AM	3	2	0	0	5	0	3	0	0	3	5	1	0	0	6	14
7:15 AM	2	0	0	0	2	0	1	0	0	1	1	4	0	0	5	8
7:30 AM	2	3	0	0	5	1	3	0	0	4	6	0	0	0	6	15
7:45 AM	1	2	0	0	3	0	2	0	0	2	2	0	0	0	2	7
Hourly Total	8	7	0	0	15	1	9	0	0	10	14	5	0	0	19	44
8:00 AM	2	3	0	0	5	0	2	0	0	2	11	0	0	0	11	18
8:15 AM	3	5	0	0	8	0	3	0	0	3	4	2	0	0	6	17
8:30 AM	1	1	0	0	2	1	1	0	0	2	4	3	0	0	7	11
8:45 AM	2	2	0	0	4	0	6	0	0	6	4	1	0	0	5	15
Hourly Total	8	11	0	0	19	1	12	0	0	13	23	6	0	0	29	61
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	1	6	0	0	7	2	3	0	0	5	4	0	0	0	4	16
4:15 PM	7	8	0	0	15	2	0	0	0	2	8	1	0	0	9	26
4:30 PM	4	5	0	0	9	1	3	0	0	4	1	2	0	0	3	16
4:45 PM	4	6	0	0	10	2	5	0	0	7	1	2	0	0	3	20
Hourly Total	16	25	0	0	41	7	11	0	0	18	14	5	0	0	19	78
5:00 PM	8	9	0	0	17	5	4	0	0	9	2	2	0	0	4	30
5:15 PM	0	7	0	0	7	5	2	0	0	7	5	1	0	0	6	20
5:30 PM	10	4	0	0	14	0	1	0	1	1	7	0	0	0	7	22
5:45 PM	1	4	0	0	5	2	1	0	0	3	3	2	0	0	5	13
Hourly Total	19	24	0	0	43	12	8	0	1	20	17	5	0	0	22	85
Grand Total	51	67	0	0	118	21	40	0	1	61	68	21	0	0	89	268
Approach %	43.2	56.8	0.0	-	-	34.4	65.6	0.0	-	-	76.4	23.6	0.0	-	-	-
Total %	19.0	25.0	0.0	-	44.0	7.8	14.9	0.0	-	22.8	25.4	7.8	0.0	-	33.2	-
Lights	47	63	0	-	110	20	38	0	-	58	68	21	0	-	89	257
% Lights	92.2	94.0	-	-	93.2	95.2	95.0	-	-	95.1	100.0	100.0	-	-	100.0	95.9
Buses	4	2	0	-	6	0	0	0	-	0	0	0	0	-	0	6
% Buses	7.8	3.0	-	-	5.1	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	2.2
Trucks	0	2	0	-	2	1	2	0	-	3	0	0	0	-	0	5
% Trucks	0.0	3.0	-	-	1.7	4.8	5.0	-	-	4.9	0.0	0.0	-	-	0.0	1.9
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	1	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-

TRI-STATE TRAFFIC DATA
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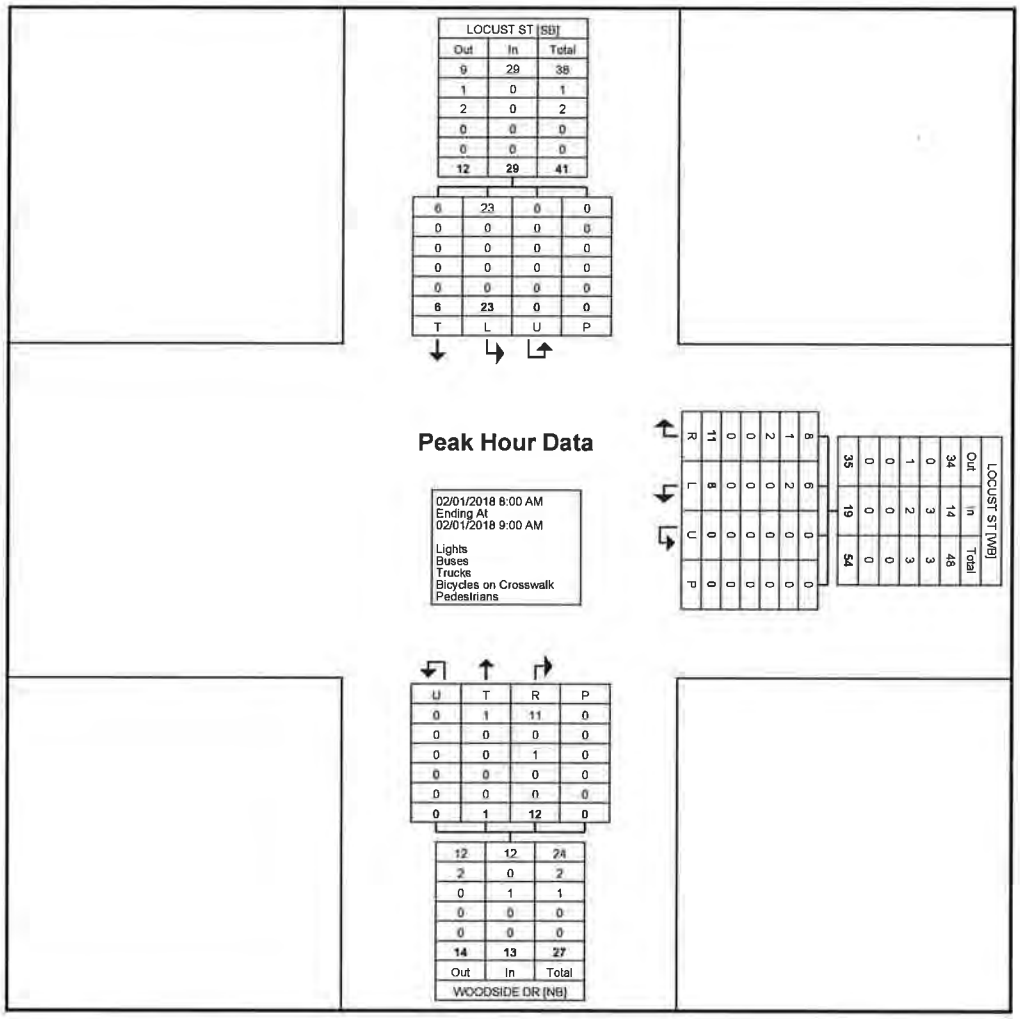
Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Warwick, NY
Locust Street @ Woodside Drive
Thursday, February 1, 2018
Location: 41.270888, -74.358962

Count Name: LOCUST STREET @ WOODSIDE DR
Site Code: 02
Start Date: 02/01/2018

Turning Movement Peak Hour Data (8:00 AM)

Start Time	LOCUST ST Westbound					WOODSIDE DR Northbound					LOCUST ST Southbound					Int. Total
	Left	Right	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	
8:00 AM	2	3	0	0	5	0	2	0	0	2	11	0	0	0	11	18
8:15 AM	3	5	0	0	8	0	3	0	0	3	4	2	0	0	6	17
8:30 AM	1	1	0	0	2	1	1	0	0	2	4	3	0	0	7	11
8:45 AM	2	2	0	0	4	0	6	0	0	6	4	1	0	0	5	15
Total	8	11	0	0	19	1	12	0	0	13	23	6	0	0	29	61
Approach %	42.1	57.9	0.0	-	-	7.7	92.3	0.0	-	-	79.3	20.7	0.0	-	-	-
Total %	13.1	18.0	0.0	-	31.1	1.6	19.7	0.0	-	21.3	37.7	9.8	0.0	-	47.5	-
PHF	0.667	0.550	0.000	-	0.594	0.250	0.500	0.000	-	0.542	0.523	0.500	0.000	-	0.659	0.847
Lights	6	8	0	-	14	1	11	0	-	12	23	6	0	-	29	55
% Lights	75.0	72.7	-	-	73.7	100.0	91.7	-	-	92.3	100.0	100.0	-	-	100.0	90.2
Buses	2	1	0	-	3	0	0	0	-	0	0	0	0	-	0	3
% Buses	25.0	9.1	-	-	15.8	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	4.9
Trucks	0	2	0	-	2	0	1	0	-	1	0	0	0	-	0	3
% Trucks	0.0	18.2	-	-	10.5	0.0	8.3	-	-	7.7	0.0	0.0	-	-	0.0	4.9
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Turning Movement Peak Hour Data Plot (8:00 AM)

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Coatesville, Pennsylvania, United States 19320
610-466-1469
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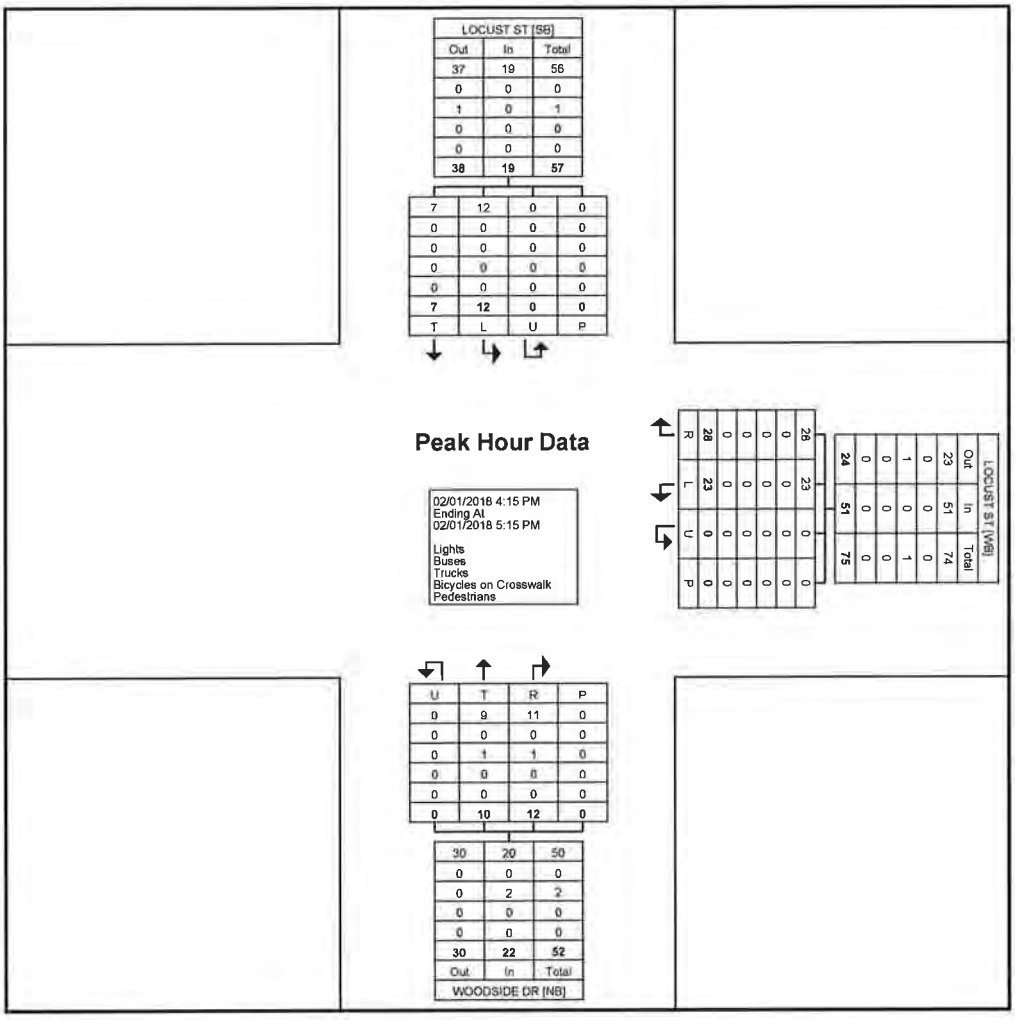
Warwick, NY
Locust Street @ Woodside Drive
Thursday, February 1, 2018
Location: 41 270888, -74.358962

Count Name: LOCUST STREET @ WOODSIDE DR
Site Code: 02
Start Date: 02/01/2018

Turning Movement Peak Hour Data (4:15 PM)

Start Time	LOCUST ST Westbound					WOODSIDE DR Northbound					LOCUST ST Southbound					Int. Total
	Left	Right	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	
4:15 PM	7	8	0	0	15	2	0	0	0	2	8	1	0	0	9	26
4:30 PM	4	5	0	0	9	1	3	0	0	4	1	2	0	0	3	16
4:45 PM	4	6	0	0	10	2	5	0	0	7	1	2	0	0	3	20
5:00 PM	8	9	0	0	17	5	4	0	0	9	2	2	0	0	4	30
Total	23	28	0	0	51	10	12	0	0	22	12	7	0	0	19	92
Approach %	45.1	54.9	0.0	-	-	45.5	54.5	0.0	-	-	63.2	36.8	0.0	-	-	-
Total %	25.0	30.4	0.0	-	55.4	10.9	13.0	0.0	-	23.9	13.0	7.6	0.0	-	20.7	-
PHF	0.719	0.778	0.000	-	0.750	0.500	0.600	0.000	-	0.611	0.375	0.875	0.000	-	0.528	0.767
Lights	23	28	0	-	51	9	11	0	-	20	12	7	0	-	19	90
% Lights	100.0	100.0	-	-	100.0	90.0	91.7	-	-	90.9	100.0	100.0	-	-	100.0	97.8
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Trucks	0	0	0	-	0	1	1	0	-	2	0	0	0	-	0	2
% Trucks	0.0	0.0	-	-	0.0	10.0	8.3	-	-	9.1	0.0	0.0	-	-	0.0	2.2
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Turning Movement Peak Hour Data Plot (4:15 PM)

TRI-STATE TRAFFIC DATA
www.TSTData.com
184 Baker Rd
Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Warwick, NY
Locust St @ Maple Ave
Thursday, February 1, 2018
Location: 41.269723, -74.354187

Count Name: LOCUST ST @ MAPLE AVE
Site Code: 01
Start Date: 02/01/2018

Turning Movement Data

Start Time	LOCUST ST Eastbound					MAPLE AVE Northbound					MAPLE AVE Southbound					Int. Total
	Left	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	
7:00 AM	6	6	0	0	12	4	69	0	0	73	45	2	0	0	47	132
7:15 AM	5	2	0	0	7	0	78	0	0	78	65	2	0	0	67	152
7:30 AM	5	5	0	0	10	3	96	0	0	99	58	2	0	0	60	169
7:45 AM	2	4	0	0	6	1	83	0	0	84	83	2	0	0	85	175
Hourly Total	18	17	0	0	35	8	326	0	0	334	251	8	0	0	259	628
8:00 AM	5	8	0	0	13	5	79	0	0	84	55	1	0	0	56	153
8:15 AM	5	9	0	0	14	5	74	0	0	79	66	4	0	0	70	163
8:30 AM	0	8	0	0	8	1	84	0	0	85	69	1	0	0	70	163
8:45 AM	5	6	0	0	11	2	77	0	0	79	62	3	0	0	65	155
Hourly Total	15	31	0	0	46	13	314	0	0	327	252	9	0	0	261	634
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	7	4	0	0	11	7	81	0	0	88	92	4	0	0	96	195
4:15 PM	4	5	0	0	9	9	80	0	0	89	125	9	0	0	134	232
4:30 PM	3	3	0	0	6	8	70	0	0	78	115	4	0	0	119	203
4:45 PM	4	5	0	0	9	9	73	0	0	82	104	5	0	0	109	200
Hourly Total	18	17	0	0	35	33	304	0	0	337	436	22	0	0	458	830
5:00 PM	3	2	0	0	5	13	92	0	0	105	94	7	0	0	101	211
5:15 PM	4	5	0	0	9	8	91	0	0	99	98	2	0	0	100	208
5:30 PM	2	10	0	0	12	6	59	0	0	65	81	11	0	0	92	169
5:45 PM	1	3	0	0	4	5	68	0	0	73	76	3	0	0	79	156
Hourly Total	10	20	0	0	30	32	310	0	0	342	349	23	0	0	372	744
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	61	85	0	0	146	86	1254	0	0	1340	1288	62	0	0	1350	2836
Approach %	41.8	58.2	0.0	-	-	6.4	93.6	0.0	-	-	95.4	4.6	0.0	-	-	-
Total %	2.2	3.0	0.0	-	5.1	3.0	44.2	0.0	-	47.2	45.4	2.2	0.0	-	47.6	-
Lights	58	84	0	-	142	79	1217	0	-	1296	1250	58	0	-	1308	2746
% Lights	95.1	98.8	-	-	97.3	91.9	97.0	-	-	96.7	97.0	93.5	-	-	96.9	96.8
Buses	0	0	0	-	0	4	9	0	-	13	11	2	0	-	13	26
% Buses	0.0	0.0	-	-	0.0	4.7	0.7	-	-	1.0	0.9	3.2	-	-	1.0	0.9
Trucks	3	1	0	-	4	3	28	0	-	31	27	2	0	-	29	64
% Trucks	4.9	1.2	-	-	2.7	3.5	2.2	-	-	2.3	2.1	3.2	-	-	2.1	2.3
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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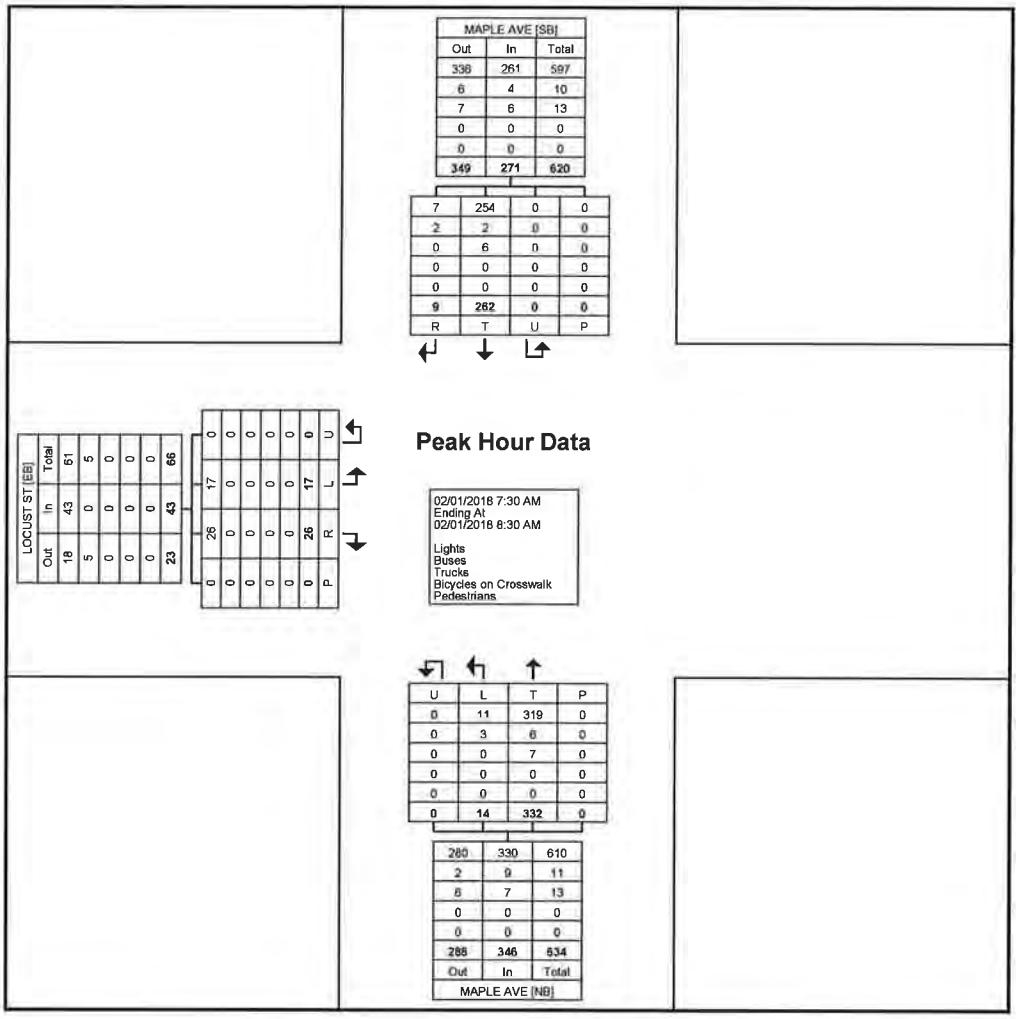
Warwick, NY
Locust St @ Maple Ave
Thursday, February 1, 2018
Location: 41 269723, -74.354187

Count Name: LOCUST ST @ MAPLE AVE
Site Code: 01
Start Date: 02/01/2018

Turning Movement Peak Hour Data (7:30 AM)

Start Time	LOCUST ST Eastbound					MAPLE AVE Northbound					MAPLE AVE Southbound					Int. Total
	Left	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	
7:30 AM	5	5	0	0	10	3	96	0	0	99	58	2	0	0	60	169
7:45 AM	2	4	0	0	6	1	83	0	0	84	83	2	0	0	85	175
8:00 AM	5	8	0	0	13	5	79	0	0	84	55	1	0	0	56	153
8:15 AM	5	9	0	0	14	5	74	0	0	79	66	4	0	0	70	163
Total	17	26	0	0	43	14	332	0	0	346	262	9	0	0	271	660
Approach %	39.5	60.5	0.0	-	-	4.0	96.0	0.0	-	-	96.7	3.3	0.0	-	-	-
Total %	2.6	3.9	0.0	-	6.5	2.1	50.3	0.0	-	52.4	39.7	1.4	0.0	-	41.1	-
PHF	0.850	0.722	0.000	-	0.768	0.700	0.865	0.000	-	0.874	0.789	0.563	0.000	-	0.797	0.943
Lights	17	26	0	-	43	11	319	0	-	330	254	7	0	-	261	634
% Lights	100.0	100.0	-	-	100.0	78.6	96.1	-	-	95.4	96.9	77.8	-	-	96.3	96.1
Buses	0	0	0	-	0	3	6	0	-	9	2	2	0	-	4	13
% Buses	0.0	0.0	-	-	0.0	21.4	1.8	-	-	2.6	0.8	22.2	-	-	1.5	2.0
Trucks	0	0	0	-	0	0	7	0	-	7	6	0	0	-	6	13
% Trucks	0.0	0.0	-	-	0.0	0.0	2.1	-	-	2.0	2.3	0.0	-	-	2.2	2.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Turning Movement Peak Hour Data Plot (7:30 AM)

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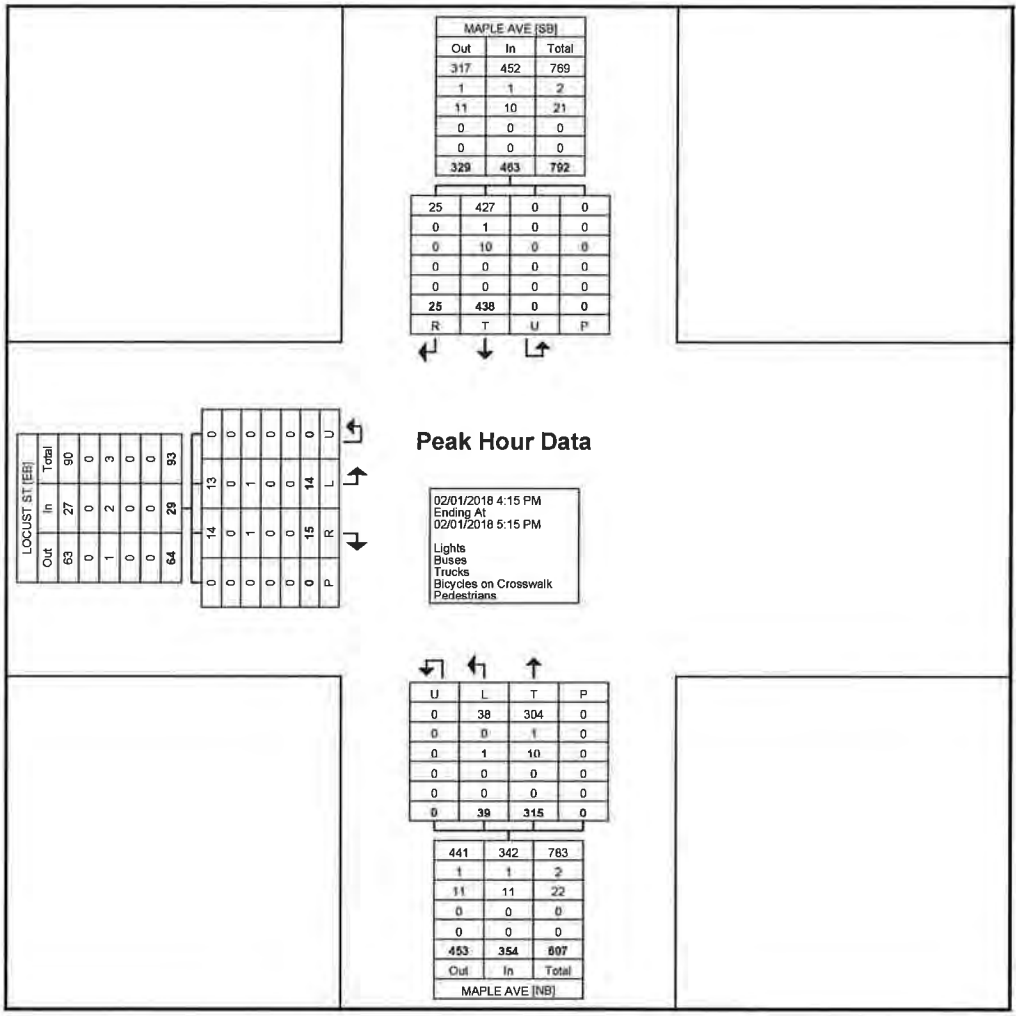
Warwick, NY
Locust St @ Maple Ave
Thursday, February 1, 2018
Location: 41.269723, -74.354187

Count Name: LOCUST ST @ MAPLE AVE
Site Code: 01
Start Date: 02/01/2018

Turning Movement Peak Hour Data (4:15 PM)

Start Time	LOCUST ST Eastbound					MAPLE AVE Northbound					MAPLE AVE Southbound					Int. Total
	Left	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	
4:15 PM	4	5	0	0	9	9	80	0	0	89	125	9	0	0	134	232
4:30 PM	3	3	0	0	6	8	70	0	0	78	115	4	0	0	119	203
4:45 PM	4	5	0	0	9	9	73	0	0	82	104	5	0	0	109	200
5:00 PM	3	2	0	0	5	13	92	0	0	105	94	7	0	0	101	211
Total	14	15	0	0	29	39	315	0	0	354	438	25	0	0	463	846
Approach %	48.3	51.7	0.0	-	-	11.0	89.0	0.0	-	-	94.6	5.4	0.0	-	-	-
Total %	1.7	1.8	0.0	-	3.4	4.6	37.2	0.0	-	41.8	51.8	3.0	0.0	-	54.7	-
PHF	0.875	0.750	0.000	-	0.806	0.750	0.856	0.000	-	0.843	0.876	0.694	0.000	-	0.864	0.912
Lights	13	14	0	-	27	38	304	0	-	342	427	25	0	-	452	821
% Lights	92.9	93.3	-	-	93.1	97.4	96.5	-	-	96.6	97.5	100.0	-	-	97.6	97.0
Buses	0	0	0	-	0	0	1	0	-	1	1	0	0	-	1	2
% Buses	0.0	0.0	-	-	0.0	0.0	0.3	-	-	0.3	0.2	0.0	-	-	0.2	0.2
Trucks	1	1	0	-	2	1	10	0	-	11	10	0	0	-	10	23
% Trucks	7.1	6.7	-	-	6.9	2.6	3.2	-	-	3.1	2.3	0.0	-	-	2.2	2.7
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Turning Movement Peak Hour Data Plot (4:15 PM)

Project No: 118-010
Counted By: JBV
Location: NY Route 17A/94 (Maple Ave)/Grand St (CR-1)
Comments: AM Peak

File Name : TM118010AM03
Site Code : 11801003
Start Date : 1/25/2018
Page No : 1

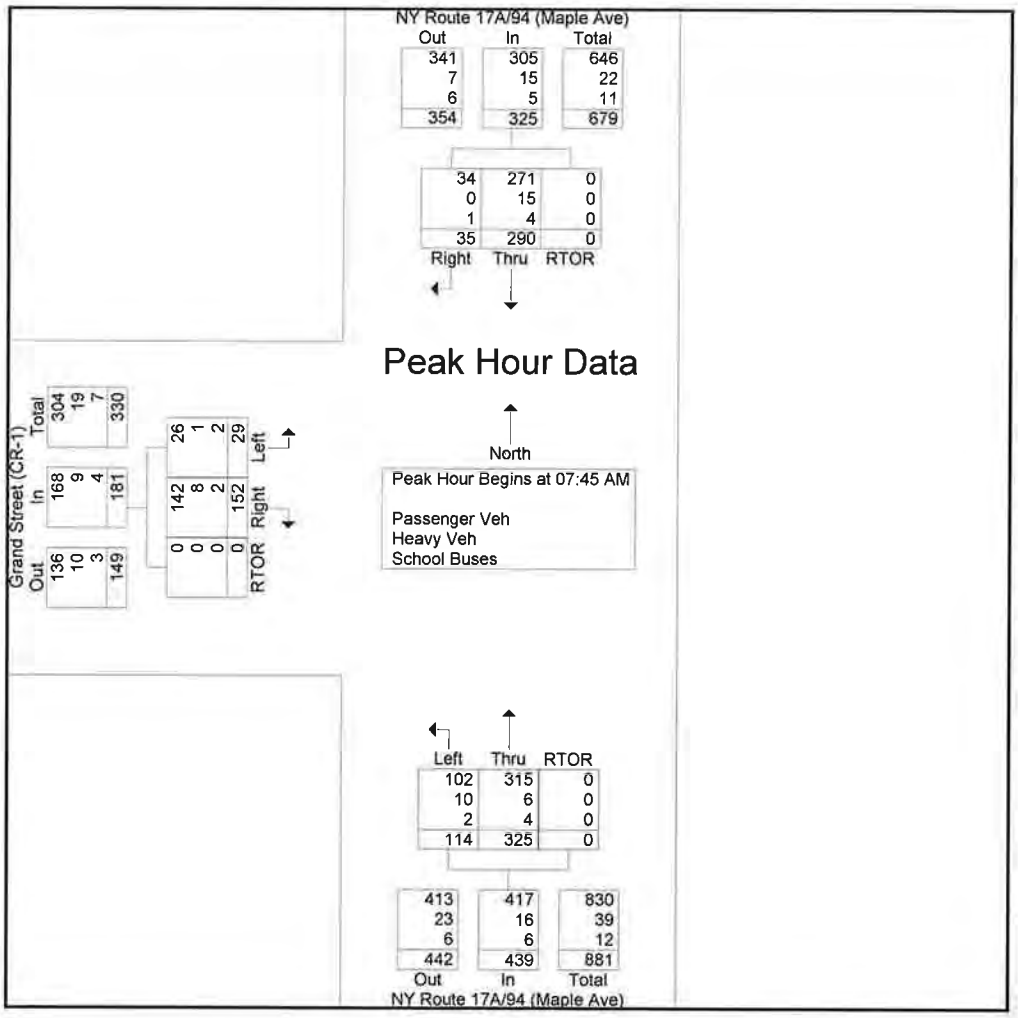
Groups Printed- Passenger Veh - Heavy Veh - School Buses

	NY Route 17A/94 (Maple Ave) Southbound				NY Route 17A/94 (Maple Ave) Northbound				Grand Street (CR-1) Eastbound				
Start Time	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Int. Total
07:00 AM	43	13	0	56	22	65	0	87	4	29	0	33	176
07:15 AM	71	20	0	91	17	78	0	95	3	29	0	32	218
07:30 AM	47	7	0	54	24	76	0	100	6	32	0	38	192
07:45 AM	85	8	0	93	31	90	0	121	14	37	0	51	265
Total	246	48	0	294	94	309	0	403	27	127	0	154	851
08:00 AM	73	12	0	85	28	84	0	112	6	40	0	46	243
08:15 AM	71	11	0	82	27	74	0	101	3	32	0	35	218
08:30 AM	61	4	0	65	28	77	0	105	6	43	0	49	219
08:45 AM	58	12	0	70	34	70	0	104	15	48	0	63	237
Total	263	39	0	302	117	305	0	422	30	163	0	193	917
Grand Total	509	87	0	596	211	614	0	825	57	290	0	347	1768
Apprch %	85.4	14.6	0		25.6	74.4	0		16.4	83.6	0		
Total %	28.8	4.9	0	33.7	11.9	34.7	0	46.7	3.2	16.4	0	19.6	
Passenger Veh	482	84	0	566	191	596	0	787	51	274	0	325	1678
% Passenger Veh	94.7	96.6	0	95	90.5	97.1	0	95.4	89.5	94.5	0	93.7	94.9
Heavy Veh	21	1	0	22	17	11	0	28	4	12	0	16	66
% Heavy Veh	4.1	1.1	0	3.7	8.1	1.8	0	3.4	7	4.1	0	4.6	3.7
School Buses	6	2	0	8	3	7	0	10	2	4	0	6	24
% School Buses	1.2	2.3	0	1.3	1.4	1.1	0	1.2	3.5	1.4	0	1.7	1.4

Project No: 118-010
Counted By: JBV
Location: NY Route 17A/94 (Maple Ave)/Grand St (CR-1)
Comments: AM Peak

File Name : TM118010AM03
Site Code : 11801003
Start Date : 1/25/2018
Page No : 2

	NY Route 17A/94 (Maple Ave) Southbound				NY Route 17A/94 (Maple Ave) Northbound				Grand Street (CR-1) Eastbound				
Start Time	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 7:00:00 AM to 8:45:00 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 7:45:00 AM													
7:45:00 AM	**85**	8	0	**93**	**31**	**90**	0	**121**	**14**	37	0	**51**	**265**
8:00:00 AM	73	**12**	0	85	28	84	0	112	6	40	0	46	243
8:15:00 AM	71	11	0	82	27	74	0	101	3	32	0	35	218
8:30:00 AM	61	4	0	65	28	77	0	105	6	**43**	0	49	219
Total Volume	290	35	0	325	114	325	0	439	29	152	0	181	945
% App. Total	89.2	10.8	0		26	74	0		16	84	0		
PHF	.853	.729	.000	.874	.919	.903	.000	.907	.518	.884	.000	.887	.892
Passenger Veh	271	34	0	305	102	315	0	417	26	142	0	168	890
% Passenger Veh	93.4	97.1	0	93.8	89.5	96.9	0	95.0	89.7	93.4	0	92.8	94.2
Heavy Veh	15	0	0	15	10	6	0	16	1	8	0	9	40
% Heavy Veh	5.2	0	0	4.6	8.8	1.8	0	3.6	3.4	5.3	0	5.0	4.2
School Buses	4	1	0	5	2	4	0	6	2	2	0	4	15
% School Buses	1.4	2.9	0	1.5	1.8	1.2	0	1.4	6.9	1.3	0	2.2	1.6



Project No: 118-010
Counted By: JBV
Location: NY Route 17A/94 (Maple Ave)/Grand St (CR-1)
Comments: PM Peak

File Name : TM118010PM03
Site Code : 11801003
Start Date : 1/24/2018
Page No : 1

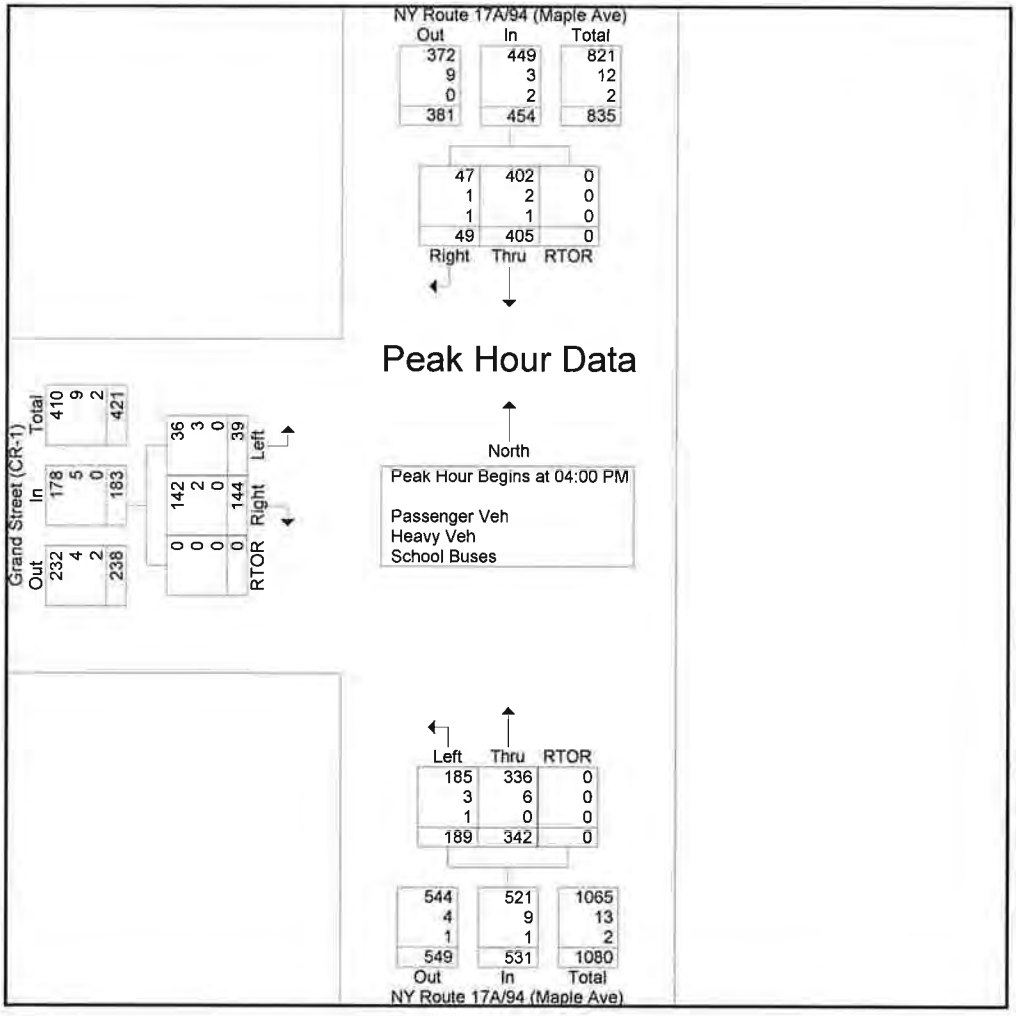
Groups Printed- Passenger Veh - Heavy Veh - School Buses

	NY Route 17A/94 (Maple Ave) Southbound				NY Route 17A/94 (Maple Ave) Northbound				Grand Street (CR-1) Eastbound				
Start Time	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Int. Total
04:00 PM	103	11	0	114	43	86	0	129	15	31	0	46	289
04:15 PM	121	15	0	136	50	94	0	144	1	34	0	35	315
04:30 PM	91	13	0	104	49	88	0	137	12	42	0	54	295
04:45 PM	90	10	0	100	47	74	0	121	11	37	0	48	269
Total	405	49	0	454	189	342	0	531	39	144	0	183	1168
05:00 PM	89	11	0	100	49	94	0	143	6	35	0	41	284
05:15 PM	106	15	0	121	46	71	0	117	10	29	0	39	277
05:30 PM	85	13	0	98	44	66	0	110	9	42	0	51	259
05:45 PM	107	10	0	117	42	87	0	129	10	29	0	39	285
Total	387	49	0	436	181	318	0	499	35	135	0	170	1105
Grand Total	792	98	0	890	370	660	0	1030	74	279	0	353	2273
Apprch %	89	11	0		35.9	64.1	0		21	79	0		
Total %	34.8	4.3	0	39.2	16.3	29	0	45.3	3.3	12.3	0	15.5	
Passenger Veh	788	96	0	884	363	652	0	1015	71	274	0	345	2244
% Passenger Veh	99.5	98	0	99.3	98.1	98.8	0	98.5	95.9	98.2	0	97.7	98.7
Heavy Veh	3	1	0	4	6	8	0	14	3	5	0	8	26
% Heavy Veh	0.4	1	0	0.4	1.6	1.2	0	1.4	4.1	1.8	0	2.3	1.1
School Buses	1	1	0	2	1	0	0	1	0	0	0	0	3
% School Buses	0.1	1	0	0.2	0.3	0	0	0.1	0	0	0	0	0.1

Project No: 118-010
Counted By: JBV
Location: NY Route 17A/94 (Maple Ave)/Grand St (CR-1)
Comments: PM Peak

File Name : TM118010PM03
Site Code : 11801003
Start Date : 1/24/2018
Page No : 2

	NY Route 17A/94 (Maple Ave) Southbound				NY Route 17A/94 (Maple Ave) Northbound				Grand Street (CR-1) Eastbound				
Start Time	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 4:00:00 PM to 5:45:00 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 4:00:00 PM													
4:00:00 PM	103	11	0	114	43	86	0	129	**15**	31	0	46	289
4:15:00 PM	**121**	**15**	0	**136**	**50**	**94**	0	**144**	1	34	0	35	**315**
4:30:00 PM	91	13	0	104	49	88	0	137	12	**42**	0	**54**	295
4:45:00 PM	90	10	0	100	47	74	0	121	11	37	0	48	269
Total Volume	405	49	0	454	189	342	0	531	39	144	0	183	1168
% App. Total	89.2	10.8	0		35.6	64.4	0		21.3	78.7	0		
PHF	.837	.817	.000	.835	.945	.910	.000	.922	.650	.857	.000	.847	.927
Passenger Veh	402	47	0	449	185	336	0	521	36	142	0	178	1148
% Passenger Veh	99.3	95.9	0	98.9	97.9	98.2	0	98.1	92.3	98.6	0	97.3	98.3
Heavy Veh	2	1	0	3	3	6	0	9	3	2	0	5	17
% Heavy Veh	0.5	2.0	0	0.7	1.6	1.8	0	1.7	7.7	1.4	0	2.7	1.5
School Buses	1	1	0	2	1	0	0	1	0	0	0	0	3
% School Buses	0.2	2.0	0	0.4	0.5	0	0	0.2	0	0	0	0	0.3



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Warwick, NY
Grand St @ Woodside Drive
Thursday, February 1, 2018
Location: 41.263041, -74.363617

Count Name: GRAND ST @ WOODSIDE DR
Site Code: 04
Start Date: 02/01/2018

Turning Movement Data

Start Time	GRAND ST Eastbound					GRAND ST Westbound					WOODSIDE DR Southbound					Int. Total
	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	
7:00 AM	0	36	0	0	36	17	2	0	0	19	3	2	0	1	5	60
7:15 AM	0	34	0	0	34	24	0	0	0	24	1	2	0	0	3	61
7:30 AM	2	45	0	0	47	21	0	0	0	21	1	0	0	2	1	69
7:45 AM	0	44	0	0	44	21	1	0	0	22	5	1	0	1	6	72
Hourly Total	2	159	0	0	161	83	3	0	0	86	10	5	0	4	15	262
8:00 AM	0	50	0	0	50	19	2	0	0	21	3	0	0	0	3	74
8:15 AM	2	63	0	0	65	16	0	0	0	16	0	1	0	0	1	82
8:30 AM	0	45	0	0	45	30	3	0	0	33	3	0	0	1	3	81
8:45 AM	0	46	0	0	46	34	2	0	0	36	7	0	0	0	7	89
Hourly Total	2	204	0	0	206	99	7	0	0	106	13	1	0	1	14	326
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	33	0	0	33	57	1	0	0	58	0	0	0	2	0	91
4:15 PM	0	34	0	0	34	49	2	0	0	51	1	0	0	2	1	86
4:30 PM	0	35	0	0	35	45	2	0	0	47	2	0	0	2	2	84
4:45 PM	0	32	0	0	32	56	4	0	0	60	3	0	0	0	3	95
Hourly Total	0	134	0	0	134	207	9	0	0	216	6	0	0	6	6	356
5:00 PM	0	34	0	0	34	73	3	0	0	76	2	0	0	0	2	112
5:15 PM	0	39	0	0	39	62	7	0	0	69	1	1	0	4	2	110
5:30 PM	0	25	0	0	25	53	7	0	0	60	3	0	0	2	3	88
5:45 PM	0	24	0	0	24	42	5	0	0	47	1	0	0	0	1	72
Hourly Total	0	122	0	0	122	230	22	0	0	252	7	1	0	6	8	382
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	4	619	0	0	623	619	41	0	0	660	36	7	0	17	43	1326
Approach %	0.6	99.4	0.0	-	-	93.8	6.2	0.0	-	-	83.7	16.3	0.0	-	-	-
Total %	0.3	46.7	0.0	-	47.0	46.7	3.1	0.0	-	49.8	2.7	0.5	0.0	-	3.2	-
Lights	4	598	0	-	602	596	38	0	-	634	35	6	0	-	41	1277
% Lights	100.0	96.6	-	-	96.6	96.3	92.7	-	-	96.1	97.2	85.7	-	-	95.3	96.3
Buses	0	8	0	-	8	10	1	0	-	11	0	1	0	-	1	20
% Buses	0.0	1.3	-	-	1.3	1.6	2.4	-	-	1.7	0.0	14.3	-	-	2.3	1.5
Trucks	0	13	0	-	13	13	2	0	-	15	1	0	0	-	1	29
% Trucks	0.0	2.1	-	-	2.1	2.1	4.9	-	-	2.3	2.8	0.0	-	-	2.3	2.2
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	17	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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Warwick, NY
Grand St @ Woodside Drive
Thursday, February 1, 2018
Location: 41.263041, -74.363617

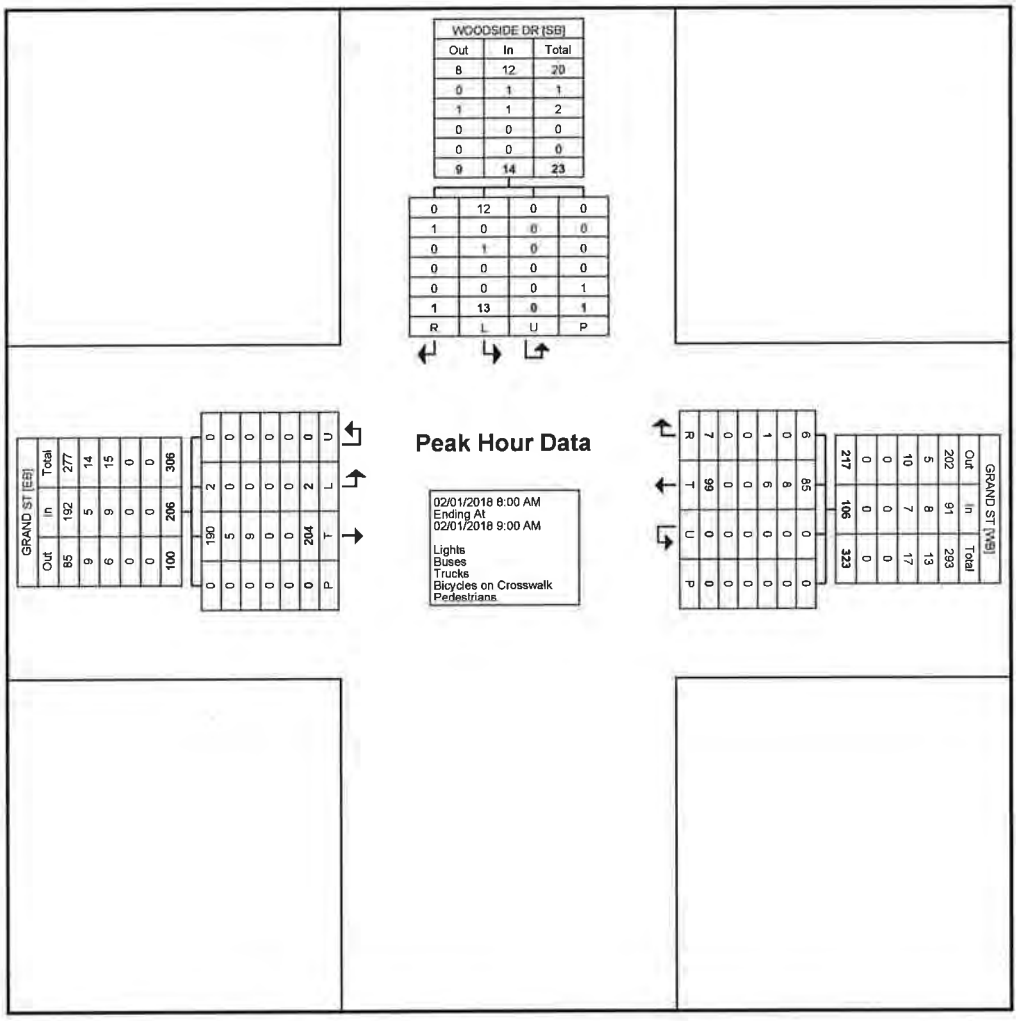
Count Name: GRAND ST @ WOODSIDE DR
Site Code: 04
Start Date: 02/01/2018

Turning Movement Peak Hour Data (8:00 AM)

Start Time	GRAND ST Eastbound					GRAND ST Westbound					WOODSIDE DR Southbound					Int. Total
	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	
8:00 AM	0	50	0	0	50	19	2	0	0	21	3	0	0	0	3	74
8:15 AM	2	63	0	0	65	16	0	0	0	16	0	1	0	0	1	82
8:30 AM	0	45	0	0	45	30	3	0	0	33	3	0	0	1	3	81
8:45 AM	0	46	0	0	46	34	2	0	0	36	7	0	0	0	7	89
Total	2	204	0	0	206	99	7	0	0	106	13	1	0	1	14	326
Approach %	1.0	99.0	0.0	-	-	93.4	6.6	0.0	-	-	92.9	7.1	0.0	-	-	-
Total %	0.6	62.6	0.0	-	63.2	30.4	2.1	0.0	-	32.5	4.0	0.3	0.0	-	4.3	-
PHF	0.250	0.810	0.000	-	0.792	0.728	0.583	0.000	-	0.736	0.464	0.250	0.000	-	0.500	0.916
Lights	2	190	0	-	192	85	6	0	-	91	12	0	0	-	12	295
% Lights	100.0	93.1	-	-	93.2	85.9	85.7	-	-	85.8	92.3	0.0	-	-	85.7	90.5
Buses	0	5	0	-	5	8	0	0	-	8	0	1	0	-	1	14
% Buses	0.0	2.5	-	-	2.4	8.1	0.0	-	-	7.5	0.0	100.0	-	-	7.1	4.3
Trucks	0	9	0	-	9	6	1	0	-	7	1	0	0	-	1	17
% Trucks	0.0	4.4	-	-	4.4	6.1	14.3	-	-	6.6	7.7	0.0	-	-	7.1	5.2
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Warwick, NY
Grand St @ Woodside Drive
Thursday, February 1, 2018
Location: 41 263041, -74.363617

Count Name: GRAND ST @ WOODSIDE DR
Site Code: 04
Start Date: 02/01/2018



Turning Movement Peak Hour Data Plot (8:00 AM)

Turning Movement Peak Hour Data (4:45 PM)

Start Time	GRAND ST Eastbound					GRAND ST Westbound					WOODSIDE DR Southbound					Int. Total
	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	
4:45 PM	0	32	0	0	32	56	4	0	0	60	3	0	0	0	3	95
5:00 PM	0	34	0	0	34	73	3	0	0	76	2	0	0	0	2	112
5:15 PM	0	39	0	0	39	62	7	0	0	69	1	1	0	4	2	110
5:30 PM	0	25	0	0	25	53	7	0	0	60	3	0	0	2	3	88
Total	0	130	0	0	130	244	21	0	0	265	9	1	0	6	10	405
Approach %	0.0	100.0	0.0	-	-	92.1	7.9	0.0	-	-	90.0	10.0	0.0	-	-	-
Total %	0.0	32.1	0.0	-	32.1	60.2	5.2	0.0	-	65.4	2.2	0.2	0.0	-	2.5	-
PHF	0.000	0.833	0.000	-	0.833	0.836	0.750	0.000	-	0.872	0.750	0.250	0.000	-	0.833	0.904
Lights	0	128	0	-	128	243	20	0	-	263	9	1	0	-	10	401
% Lights	-	98.5	-	-	98.5	99.6	95.2	-	-	99.2	100.0	100.0	-	-	100.0	99.0
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	-	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Trucks	0	2	0	-	2	1	1	0	-	2	0	0	0	-	0	4
% Trucks	-	1.5	-	-	1.5	0.4	4.8	-	-	0.8	0.0	0.0	-	-	0.0	1.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	6	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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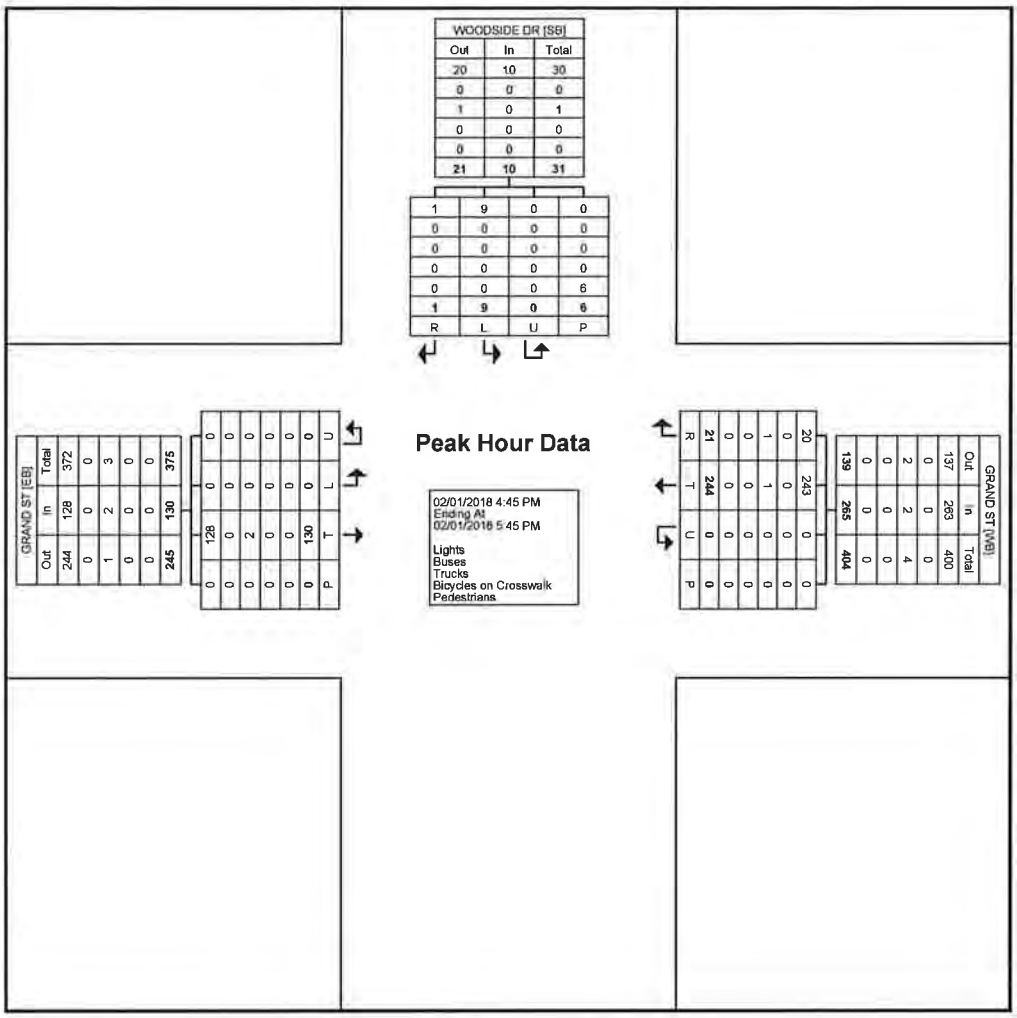

Turning Movement Peak Hour Data Plot (4:45 PM)

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Warwick, NY
Grand St @ Crescent Ave
Thursday, February 1, 2018
Location: 41.263501, -74.364844

Count Name: GRAND ST @ CRESCENT AVE
Site Code: 03
Start Date: 02/01/2018

Turning Movement Data

Start Time	PINE ISLAND TPKE Eastbound						GRAND ST Westbound						LIBERTY CT Northbound						CRESCENT AVE Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
7:00 AM	1	25	0	0	0	26	0	18	1	0	0	19	0	0	2	0	0	2	8	0	6	0	0	14	61
7:15 AM	2	29	0	0	0	31	0	27	1	0	0	28	0	0	2	0	0	2	4	0	10	0	0	14	75
7:30 AM	3	37	1	0	0	41	2	16	3	0	0	21	0	1	3	0	0	4	8	1	1	0	0	10	76
7:45 AM	0	38	1	0	0	39	3	15	2	0	0	20	0	1	2	0	0	3	7	0	3	0	0	10	72
Hourly Total	6	129	2	0	0	137	5	76	7	0	0	88	0	2	9	0	0	11	27	1	20	0	0	48	284
8:00 AM	2	39	0	0	0	41	1	16	3	1	0	21	1	0	3	0	0	4	3	0	1	0	0	4	70
8:15 AM	1	54	0	0	0	55	0	14	2	0	0	16	1	0	2	0	0	3	9	0	3	0	0	12	86
8:30 AM	1	29	0	0	0	30	5	21	1	0	0	27	1	0	6	0	0	7	9	1	4	0	0	14	78
8:45 AM	1	36	0	0	0	37	5	27	4	0	0	36	2	1	4	0	0	7	2	1	2	0	0	5	85
Hourly Total	5	158	0	0	0	163	11	78	10	1	0	100	5	1	15	0	0	21	23	2	10	0	0	35	319
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	2	32	0	0	1	34	5	39	6	0	0	50	1	0	3	0	0	4	3	0	3	0	0	6	94
4:15 PM	1	23	1	0	0	25	5	44	5	0	0	54	0	0	4	0	0	4	5	2	0	0	0	7	90
4:30 PM	1	24	1	0	0	26	1	34	6	0	1	41	0	1	6	0	1	7	6	0	2	0	0	8	82
4:45 PM	3	22	0	0	0	25	8	43	5	0	0	56	0	1	4	0	0	5	6	1	5	0	0	12	98
Hourly Total	7	101	2	0	1	110	19	160	22	0	1	201	1	2	17	0	1	20	20	3	10	0	0	33	364
5:00 PM	7	23	0	0	2	30	8	53	6	0	0	67	0	0	2	0	0	2	6	0	2	0	0	8	107
5:15 PM	1	30	0	0	2	31	5	49	13	0	0	67	0	0	3	0	0	3	5	0	2	0	0	7	108
5:30 PM	2	21	0	0	0	23	9	41	4	0	0	54	0	0	1	0	0	1	7	1	1	0	0	9	87
5:45 PM	2	15	1	0	0	18	6	33	4	0	0	43	1	0	7	0	0	8	1	0	4	0	0	5	74
Hourly Total	12	89	1	0	4	102	28	176	27	0	0	231	1	0	13	0	0	14	19	1	9	0	0	29	376
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	30	477	5	0	5	512	63	490	66	1	1	620	7	5	54	0	1	66	89	7	49	0	0	145	1343
Approach %	5.9	93.2	1.0	0.0	-	-	10.2	79.0	10.6	0.2	-	-	10.6	7.6	81.8	0.0	-	-	61.4	4.8	33.8	0.0	-	-	-
Total %	2.2	35.5	0.4	0.0	-	38.1	4.7	36.5	4.9	0.1	-	46.2	0.5	0.4	4.0	0.0	-	4.9	6.6	0.5	3.6	0.0	-	10.8	-
Lights	30	462	5	0	-	497	61	470	64	1	-	596	6	5	53	0	-	64	86	7	46	0	-	139	1296
% Lights	100.0	96.9	100.0	-	-	97.1	96.8	95.9	97.0	100.0	-	96.1	85.7	100.0	98.1	-	-	97.0	96.6	100.0	93.9	-	-	95.9	96.5
Buses	0	4	0	0	-	4	2	6	2	0	-	10	1	0	1	0	-	2	2	0	3	0	-	5	21
% Buses	0.0	0.8	0.0	-	-	0.8	3.2	1.2	3.0	0.0	-	1.6	14.3	0.0	1.9	-	-	3.0	2.2	0.0	6.1	-	-	3.4	1.6
Trucks	0	11	0	0	-	11	0	14	0	0	-	14	0	0	0	0	-	0	1	0	0	0	-	1	26
% Trucks	0.0	2.3	0.0	-	-	2.1	0.0	2.9	0.0	0.0	-	2.3	0.0	0.0	0.0	-	-	0.0	1.1	0.0	0.0	-	-	0.7	1.9
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	5	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

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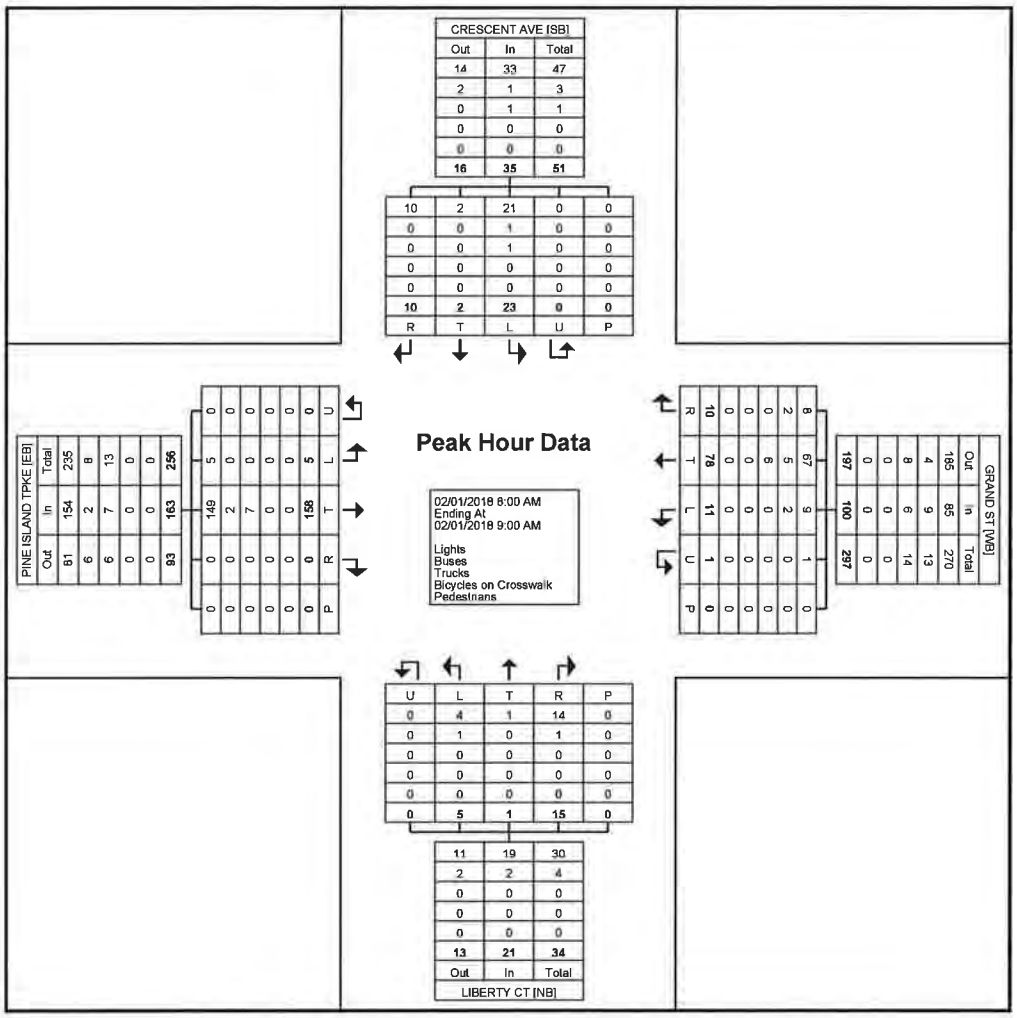
Warwick, NY
Grand St @ Crescent Ave
Thursday, February 1, 2018
Location: 41.263501, -74.364844

Count Name: GRAND ST @ CRESCENT AVE
Site Code: 03
Start Date: 02/01/2018

Turning Movement Peak Hour Data (8:00 AM)

Start Time	PINE ISLAND TPKE Eastbound						GRAND ST Westbound						LIBERTY CT Northbound						CRESCENT AVE Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
8:00 AM	2	39	0	0	0	41	1	16	3	1	0	21	1	0	3	0	0	4	3	0	1	0	0	4	70
8:15 AM	1	54	0	0	0	55	0	14	2	0	0	16	1	0	2	0	0	3	9	0	3	0	0	12	86
8:30 AM	1	29	0	0	0	30	5	21	1	0	0	27	1	0	6	0	0	7	9	1	4	0	0	14	78
8:45 AM	1	36	0	0	0	37	5	27	4	0	0	36	2	1	4	0	0	7	2	1	2	0	0	5	85
Total	5	158	0	0	0	163	11	78	10	1	0	100	5	1	15	0	0	21	23	2	10	0	0	35	319
Approach %	3.1	96.9	0.0	0.0	-	-	11.0	78.0	10.0	1.0	-	-	23.8	4.8	71.4	0.0	-	-	65.7	5.7	28.6	0.0	-	-	-
Total %	1.6	49.5	0.0	0.0	-	51.1	3.4	24.5	3.1	0.3	-	31.3	1.6	0.3	4.7	0.0	-	6.6	7.2	0.6	3.1	0.0	-	11.0	-
PHF	0.625	0.731	0.000	0.000	-	0.741	0.550	0.722	0.625	0.250	-	0.694	0.625	0.250	0.625	0.000	-	0.750	0.639	0.500	0.625	0.000	-	0.625	0.927
Lights	5	149	0	0	-	154	9	67	8	1	-	85	4	1	14	0	-	19	21	2	10	0	-	33	291
% Lights	100.0	94.3	-	-	-	94.5	81.8	85.9	80.0	100.0	-	85.0	80.0	100.0	93.3	-	-	90.5	91.3	100.0	100.0	-	-	94.3	91.2
Buses	0	2	0	0	-	2	2	5	2	0	-	9	1	0	1	0	-	2	1	0	0	0	-	1	14
% Buses	0.0	1.3	-	-	-	1.2	18.2	6.4	20.0	0.0	-	9.0	20.0	0.0	6.7	-	-	9.5	4.3	0.0	0.0	-	-	2.9	4.4
Trucks	0	7	0	0	-	7	0	6	0	0	-	6	0	0	0	0	-	0	1	0	0	0	-	1	14
% Trucks	0.0	4.4	-	-	-	4.3	0.0	7.7	0.0	0.0	-	6.0	0.0	0.0	0.0	-	-	0.0	4.3	0.0	0.0	-	-	2.9	4.4
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



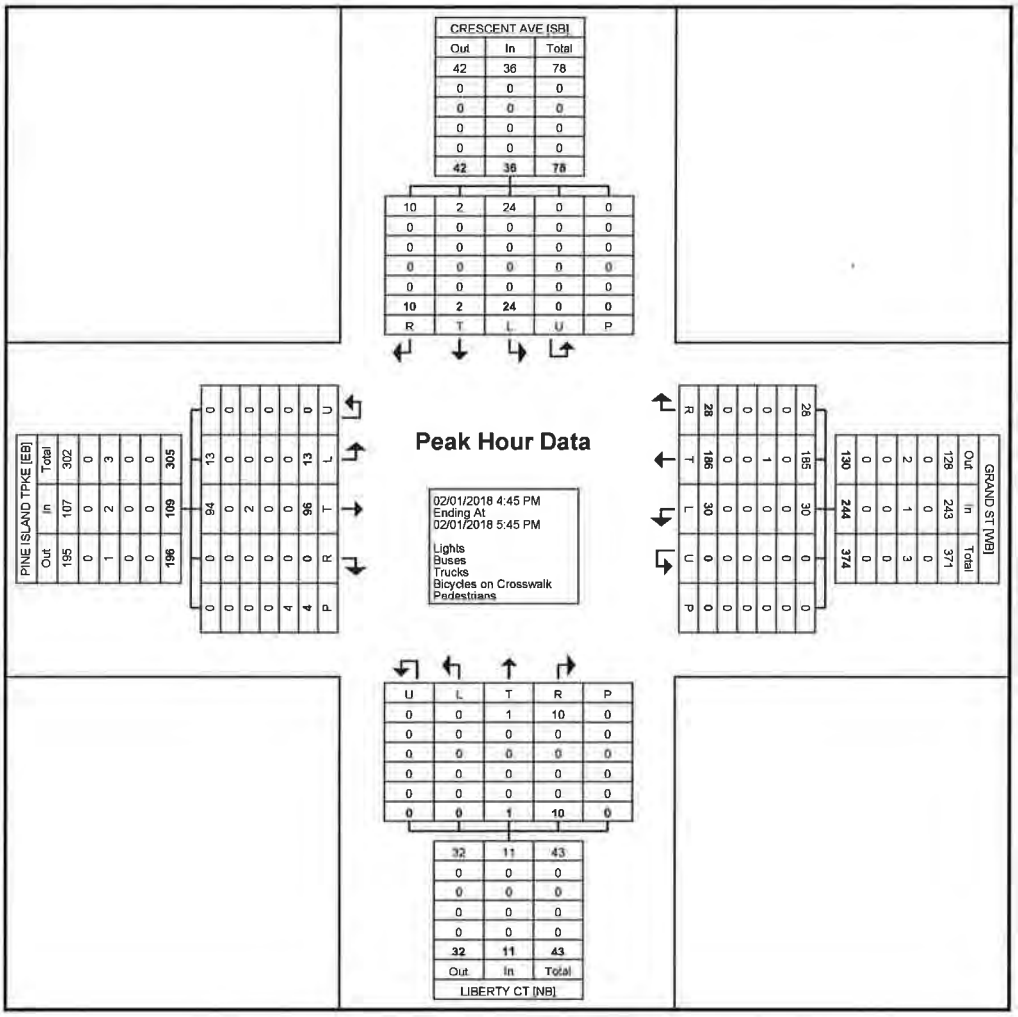
Turning Movement Peak Hour Data Plot (8:00 AM)

Warwick, NY
Grand St @ Crescent Ave
Thursday, February 1, 2018
Location: 41.263501, -74.364844

Count Name: GRAND ST @ CRESCENT AVE
Site Code: 03
Start Date: 02/01/2018

Turning Movement Peak Hour Data (4:45 PM)

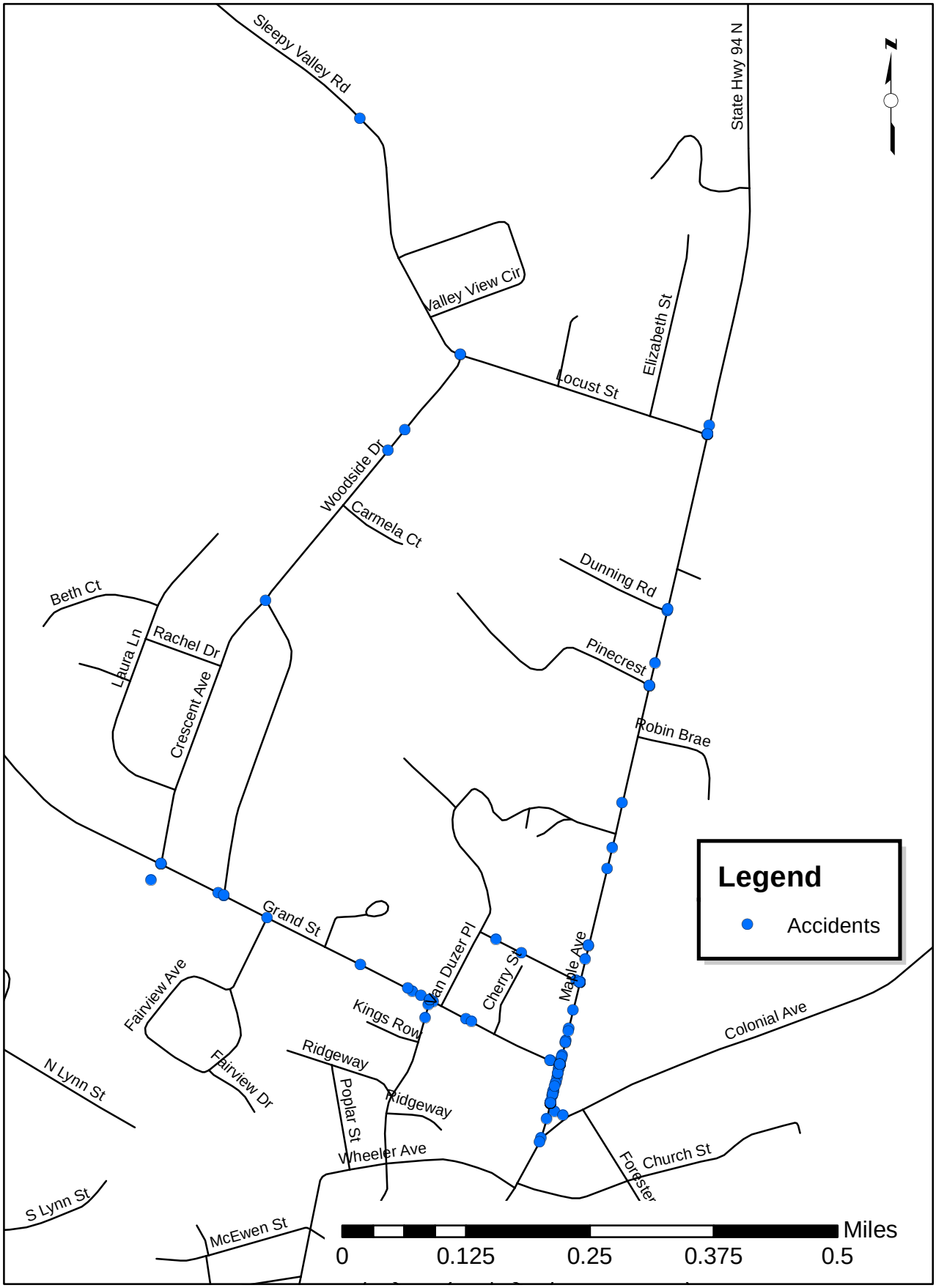
Start Time	PINE ISLAND TPKE Eastbound						GRAND ST Westbound						LIBERTY CT Northbound						CRESCENT AVE Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
4:45 PM	3	22	0	0	0	25	8	43	5	0	0	56	0	1	4	0	0	5	6	1	5	0	0	12	98
5:00 PM	7	23	0	0	2	30	8	53	6	0	0	67	0	0	2	0	0	2	6	0	2	0	0	8	107
5:15 PM	1	30	0	0	2	31	5	49	13	0	0	67	0	0	3	0	0	3	5	0	2	0	0	7	108
5:30 PM	2	21	0	0	0	23	9	41	4	0	0	54	0	0	1	0	0	1	7	1	1	0	0	9	87
Total	13	96	0	0	4	109	30	186	28	0	0	244	0	1	10	0	0	11	24	2	10	0	0	36	400
Approach %	11.9	88.1	0.0	0.0	-	-	12.3	76.2	11.5	0.0	-	-	0.0	9.1	90.9	0.0	-	-	66.7	5.6	27.8	0.0	-	-	-
Total %	3.3	24.0	0.0	0.0	-	27.3	7.5	46.5	7.0	0.0	-	61.0	0.0	0.3	2.5	0.0	-	2.8	6.0	0.5	2.5	0.0	-	9.0	-
PHF	0.464	0.800	0.000	0.000	-	0.879	0.833	0.877	0.538	0.000	-	0.910	0.000	0.250	0.625	0.000	-	0.550	0.857	0.500	0.500	0.000	-	0.750	0.926
Lights	13	94	0	0	-	107	30	185	28	0	-	243	0	1	10	0	-	11	24	2	10	0	-	36	397
% Lights	100.0	97.9	-	-	-	98.2	100.0	99.5	100.0	-	-	99.6	-	100.0	100.0	-	-	100.0	100.0	100.0	100.0	-	-	100.0	99.3
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Buses	0.0	0.0	-	-	-	0.0	0.0	0.0	0.0	-	-	0.0	-	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Trucks	0	2	0	0	-	2	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	3
% Trucks	0.0	2.1	-	-	-	1.8	0.0	0.5	0.0	-	-	0.4	-	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.8
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0 0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	4	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100 0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Turning Movement Peak Hour Data Plot (4:45 PM)

Attachment C
Accident Analysis

Village View Subdivision
Village of Warwick, New York


Sleepy Valley Rd
State Hwy 94 N
N
Valley View Cir
Elizabeth St
Locust St
Woodside Dr
Carmela Ct
Dunning Rd
Beth Ct
Laura Ln
Rachel Dr
Crescent Ave
Pinecrest
Robin Brae
Grand St
Van Duzer Pl
Cherry St
Maple Ave
Fairview Ave
Kings Row
Colonial Ave
Ridgeway
Fairview Dr
N Lynn St
Poplar St
Ridgeway
Wheeler Ave
Church St
Forester
S Lynn St
McEwen St
Legend
Accidents
Miles
0
0.125
0.25
0.375
0.5

Intersection Crashes

Case Num	Accd Date	Accd Time	On Street	Closest Cr	Severity	Accd Type	Collision	Traffic Co	Light Cond	Weather	Road Surf	Dir Of Tra	Dir Of T 1	Apparent F	Apparent 1	PRE ACCD A	PRE ACCD 1
36528737	12/18/2016	10:20am	MAPLE AVE	Gand St	NON-REPORTABLE	COLLISION WITH MOTOR VEHICLE	SIDESWIPE	STOP SIGN	DAYLIGHT	RAIN	WET	NORTH	EAST	OBSTRUCTION/DEBRIS	NOT APPLICABLE	AVOIDING OBJECT IN ROADWAY	PARKED
35550996	1/12/2015	08:05am	LOCUST ST	WOODSIDE DR	PROPERTY DAMAGE	COLLISION WITH GUIDE RAIL	Fixed Object	NONE	DAYLIGHT	RAIN	SNOW/ICE	EAST		PAVEMENT SLIPPERY		SLOWED OR STOPPING	
35617270	11/28/2013	11:30am	MAPLE AVE	LOCUST ST	PROPERTY DAMAGE	COLLISION WITH DEER	Animal	STOP SIGN	DAYLIGHT	CLEAR	DRY	SOUTH		ANIMAL'S ACTION		GOING STRAIGHT AHEAD	
34660138	2/16/2013	03:20am	MAPLE AVE	LOCUST ST	PROPERTY DAMAGE AND INJURY	COLLISION WITH TREE	Fixed Object	NO PASSING ZONE	DARK-ROAD UNLIGHTED	SNOW	SNOW/ICE	SOUTH		ALCOHOL INVOLVEMENT		GOING STRAIGHT AHEAD	
36297062	7/5/2016	01:15pm	MAPLE AVE	Locust St	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	OVERTAKING	NO PASSING ZONE	DAYLIGHT	CLOUDY	DRY	SOUTH	SOUTH	PASSING OR LANE USAGE IMPROPERLY	PASSING OR LANE USAGE IMPROPERLY	MAKING LEFT TURN	OVERTAKING
35015836	11/18/2013	01:52pm	MAPLE AVE	GRAND ST	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	SIDESWIPE	TRAFFIC SIGNAL	DAYLIGHT	CLEAR	DRY	NORTH	SOUTH	DRIVER INATTENTION	DRIVER INATTENTION	MAKING LEFT TURN	MAKING RIGHT TURN
34756476	4/26/2013	06:08pm	MAPLE AVE	GRAND ST	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	SIDESWIPE	NONE	DAYLIGHT	CLEAR	DRY	NORTH	SOUTH	NOT APPLICABLE	PASSING OR LANE USAGE IMPROPERLY	PARKED	GOING STRAIGHT AHEAD
36543012	12/24/2016	10:30am	MAPLE AVE	GRAND ST	INJURY	COLLISION WITH MOTOR VEHICLE	Right Angle	STOP SIGN	DAYLIGHT	RAIN	WET	EAST	NORTH	DRIVER INATTENTION	NOT APPLICABLE	MAKING LEFT TURN	GOING STRAIGHT AHEAD
36591065	1/25/2017	05:35pm	GRAND ST	Woodside Dr	NON-REPORTABLE	COLLISION WITH FIRE HYDRANT	Fixed Object	NO PASSING ZONE	DARK-ROAD UNLIGHTED	CLEAR	WET	NORTH-WEST		PAVEMENT SLIPPERY		BACKING	
35283090	6/4/2014	10:50pm	GRAND ST	WOODSIDE DR	PROPERTY DAMAGE AND INJURY	COLL. W/LIGHT SUPPORT/UTILITY POLE	Fixed Object	NO PASSING ZONE	DARK-ROAD LIGHTED	CLEAR	DRY	SOUTH-EAST		ALCOHOL INVOLVEMENT		GOING STRAIGHT AHEAD	
34446536	9/21/2012	01:50pm	GRAND ST	LIBERTY CT	PROPERTY DAMAGE	COLLISION WITH DEER	Animal	NO PASSING ZONE	DAYLIGHT	CLEAR	DRY	EAST		ANIMAL'S ACTION		GOING STRAIGHT AHEAD	
35535543	12/9/2014	06:30pm	CRESCENT AVE	Gand St	INJURY	COLLISION WITH PEDESTRIAN	Pedestrian	STOP SIGN	DARK-ROAD LIGHTED	SLEET/HAIL	WET	NORTH	NOT APPLICAB	FAILURE TO YIELD RIGHT OF WAY	NOT APPLICABLE	MAKING RIGHT TURN	NOT APPLICABLE
35973973	11/19/2015	06:20pm	MAPLE AVE	LOCUST ST	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	Rear End	NONE	DARK-ROAD LIGHTED	RAIN	WET	NORTH	NORTH	DRIVER INATTENTION	FOLLOWING TOO CLOSELY	GOING STRAIGHT AHEAD	STOPPED IN TRAFFIC
35151776	2/20/2014	04:58pm	MAPLE AVE	GRAND ST	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	RIGHT ANGLE	STOP SIGN	DUSK	RAIN	WET	EAST	SOUTH	VIEW OBSTRUCTED/LIMITED	NOT APPLICABLE	MAKING RIGHT TURN	GOING STRAIGHT AHEAD
35553367	1/13/2015	06:09pm	MAPLE AVE	Gand St	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	RIGHT ANGLE	STOP SIGN	DARK-ROAD LIGHTED	CLEAR	DRY	NORTH	NORTH-WEST	NOT APPLICABLE	FAILURE TO YIELD RIGHT OF WAY	GOING STRAIGHT AHEAD	MAKING LEFT TURN
36318136	7/25/2016	03:45pm	MAPLE AVE	Locust St	NON-REPORTABLE	COLLISION WITH MOTOR VEHICLE	REAR END	NONE	DAYLIGHT	RAIN	WET	NORTH	NORTH	NOT APPLICABLE	FOLLOWING TOO CLOSELY	SLOWED OR STOPPING	SLOWED OR STOPPING
35322152	7/3/2014	04:00pm	MAPLE AVE	GRAND ST	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	RIGHT ANGLE	STOP SIGN	DAYLIGHT	CLEAR	DRY	SOUTH	EAST	PASSING OR LANE USAGE IMPROPERLY	FAILURE TO YIELD RIGHT OF WAY	GOING STRAIGHT AHEAD	MAKING LEFT TURN
36043000	1/4/2016	12:16pm	GRAND ST	MAPLE AVE	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	RIGHT ANGLE	NONE	DAYLIGHT	CLEAR	DRY	EAST	NORTH	BACKING UNSAFELY	NOT APPLICABLE	BACKING	PARKED
35138304	2/12/2014	09:10am	MAPLE AVE	GRAND ST	NON-REPORTABLE	COLLISION WITH MOTOR VEHICLE	REAR END	NONE	DAYLIGHT	CLEAR	DRY	SOUTH	SOUTH	BACKING UNSAFELY	NOT APPLICABLE	BACKING	PARKED
35101499	1/22/2014	03:10pm	GRAND ST	MAPLE AVE	NON-REPORTABLE	COLLISION WITH MOTOR VEHICLE	REAR END	STOP SIGN	DAYLIGHT	CLEAR	WET	EAST	EAST	DRIVER INATTENTION	NOT APPLICABLE	STARTING IN TRAFFIC	STOPPED IN TRAFFIC
36638115	2/27/2017	05:16pm	MAPLE AVE	Gand St	NON-REPORTABLE	COLLISION WITH MOTOR VEHICLE	REAR END	NONE	DAYLIGHT	CLEAR	DRY	WEST	EAST	NOT APPLICABLE	BACKING UNSAFELY	PARKED	BACKING
35254077	5/5/2014	03:00pm	GRAND ST	MAPLE AVE	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	REAR END	STOP SIGN	DAYLIGHT	CLEAR	DRY	WEST	EAST	DRIVER INATTENTION	NOT APPLICABLE	BACKING	STOPPED IN TRAFFIC
35618653	2/23/2015	05:26pm	GRAND ST	MAPLE AVE	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	REAR END	STOP SIGN	DAYLIGHT	CLEAR	DRY	EAST	EAST	NOT APPLICABLE	FOLLOWING TOO CLOSELY	STOPPED IN TRAFFIC	SLOWED OR STOPPING
34788344	5/23/2013	02:20pm	MAPLE AVE	GRAND ST	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	REAR END	NONE	DAYLIGHT	CLEAR	DRY	NORTH	SOUTH	BACKING UNSAFELY	NOT APPLICABLE	BACKING	PARKED
34805304	6/7/2013	01:13pm	GRAND ST	MAPLE AVE	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	REAR END	STOP SIGN	DAYLIGHT	RAIN	WET	EAST	EAST	NOT APPLICABLE	FOLLOWING TOO CLOSELY	SLOWED OR STOPPING	GOING STRAIGHT AHEAD
34939266	9/26/2013	03:30pm	GRAND ST	MAPLE AVE	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	REAR END	NONE	DAYLIGHT	CLEAR	DRY	WEST	WEST	DRIVER INATTENTION	NOT APPLICABLE	GOING STRAIGHT AHEAD	MAKING LEFT TURN
36680561	3/22/2017	03:00pm	MAPLE AVE	Gand St	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	REAR END	NO PASSING ZONE	DAYLIGHT	CLEAR	DRY	NORTH	NORTH	DRIVER INATTENTION	NOT APPLICABLE	GOING STRAIGHT AHEAD	STOPPED IN TRAFFIC
35855748	8/21/2015	01:58pm	MAPLE AVE	GRAND ST	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	REAR END	NONE	DAYLIGHT	CLEAR	DRY	NORTH	NORTH	DRIVER INATTENTION	NOT APPLICABLE	GOING STRAIGHT AHEAD	SLOWED OR STOPPING
36014655	12/17/2015	11:12am	GRAND ST	WOODSIDE DR	NON-REPORTABLE	COLLISION WITH MOTOR VEHICLE	REAR END	STOP SIGN	DAYLIGHT	RAIN	WET	EAST	EAST	NOT APPLICABLE	DRIVER INEXPERIENCE	SLOWED OR STOPPING	GOING STRAIGHT AHEAD
36543009	12/20/2016	07:33am	LOCUST ST	Maple Ave	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	RIGHT ANGLE	STOP SIGN	DAWN	CLEAR	DRY	EAST	SOUTH	NOT APPLICABLE	DRIVER INATTENTION	STOPPED IN TRAFFIC	MAKING RIGHT TURN
34664727	1/30/2013	10:45am	MAPLE AVE	GRAND ST	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	REAR END	NONE	DAYLIGHT	CLOUDY	WET	SOUTH	SOUTH	DRIVER INATTENTION	NOT APPLICABLE	GOING STRAIGHT AHEAD	SLOWED OR STOPPING
34995838	11/1/2013	10:26am	MAPLE AVE	GRAND ST	PROPERTY DAMAGE AND INJURY	COLLISION WITH MOTOR VEHICLE	REAR END	NONE	DAYLIGHT	CLEAR	DRY	SOUTH	SOUTH	DRIVER INATTENTION	DRIVER INATTENTION	GOING STRAIGHT AHEAD	GOING STRAIGHT AHEAD
35647252	2/24/2015	01:00pm	GRAND ST	MAPLE AVE	NON-REPORTABLE	COLLISION WITH MOTOR VEHICLE	OVERTAKING	NONE	DAYLIGHT	CLEAR	DRY	WEST	WEST	NOT APPLICABLE	PASSING TOO CLOSELY	PARKED	GOING STRAIGHT AHEAD
35731370	5/14/2015	05:30pm	MAPLE AVE	GRAND ST	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	OVERTAKING	STOP SIGN	DAYLIGHT	CLEAR	DRY	SOUTH	SOUTH	TURNING IMPROPER	NOT APPLICABLE	MAKING RIGHT TURN	STOPPED IN TRAFFIC
34588272	12/29/2012	05:15pm	LOCUST ST	WOODSIDE DR	PROPERTY DAMAGE AND INJURY	COLLISION WITH MOTOR VEHICLE	SIDESWIPE	STOP SIGN	DARK-ROAD LIGHTED	SNOW	SNOW/ICE	EAST	WEST	PAVEMENT SLIPPERY	NOT APPLICABLE	GOING STRAIGHT AHEAD	SLOWED OR STOPPING
35475291	11/17/2014	02:00pm	MAPLE AVE	GRAND ST	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	OTHER	NONE	DAYLIGHT	RAIN	WET	WEST	NORTH	PHYSICAL DISABILITY	NOT APPLICABLE	BACKING	PARKED
36532177	12/18/2016	10:15am	MAPLE AVE	Gand St	PROPERTY DAMAGE AND INJURY	COLLISION WITH MOTOR VEHICLE	LEFT TURN (AGAINST OTHER C	STOP SIGN	DAYLIGHT	RAIN	WET	SOUTH	EAST	NOT APPLICABLE	FAILURE TO YIELD RIGHT OF WAY	GOING STRAIGHT AHEAD	MAKING LEFT TURN
34486758	10/8/2012	10:34am	MAPLE AVE	GRAND ST	PROPERTY DAMAGE	COLLISION WITH BUILDING/WALL	Fixed Object	NO PASSING ZONE	DAYLIGHT	CLEAR	DRY	SOUTH		UNSAFE SPEED		MAKING RIGHT TURN	
34603805	12/30/2012	09:20am	CRESCENT AVE	GRAND ST	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	Other	NONE	DAYLIGHT	CLEAR	SNOW/ICE	UNKNOWN	NORTH	UNKNOWN	NOT APPLICABLE	UNKNOWN	PARKED

Segment Crashes

Case Num	Accd Date	Accd Time	On Street	Closest Cr	Severity	Accd Type	Collision	Traffic Co	Light Cond	Weather	Road Surf	Dir Of Tra	Dir Of T 1	Apparent F	Apparent 1	PRE ACCD A	PRE ACCD 1
34788341	5/25/2013	12:00pm	SLEEPY VALLEY RD	Locust St	PROPERTY DAMAGE AND INJURY	COLLISION WITH TREE	Fixed Object	NONE	DAYLIGHT	RAIN	WET	EAST		UNSAFE SPEED		GOING STRAIGHT AHEAD	
36452479	10/8/2016	12:11am	MAPLE AVE	VAN DUZER PL	NON-REPORTABLE	COLLISION WITH DEER	Animal	NONE	DARK-ROAD LIGHTED	CLEAR	DRY	SOUTH-WEST		ANIMAL'S ACTION		GOING STRAIGHT AHEAD	
34664118	2/17/2013	05:55pm	MAPLE AVE	Unnamed Street	NON-REPORTABLE	COLLISION WITH DEER	Animal	NONE	DARK-ROAD UNLIGHTED	CLEAR	DRY	SOUTH		ANIMAL'S ACTION		GOING STRAIGHT AHEAD	
35887953	9/8/2015	08:37am	MAPLE AVE	LOCUST ST	PROPERTY DAMAGE	COLLISION WITH DEER	Animal	NONE	DAYLIGHT	CLEAR	DRY	NORTH		ANIMAL'S ACTION		GOING STRAIGHT AHEAD	
35809986	7/16/2015	12:15am	MAPLE AVE	VAN DUZER PL	PROPERTY DAMAGE	COLLISION WITH DEER	Animal	NONE	DARK-ROAD LIGHTED	CLEAR	DRY	NORTH		ANIMAL'S ACTION		GOING STRAIGHT AHEAD	
34570451	11/18/2012	02:56pm	MAPLE AVE	Van Duzer Pl	PROPERTY DAMAGE	COLLISION WITH DEER	Animal	NONE	DAYLIGHT	CLEAR	DRY	WEST		ANIMAL'S ACTION		GOING STRAIGHT AHEAD	
35613035	1/9/2015	06:25pm	MAPLE AVE	Driveway	PROPERTY DAMAGE	COLLISION WITH DEER	Animal	NONE	DARK-ROAD LIGHTED	CLEAR	DRY	NORTH		ANIMAL'S ACTION		GOING STRAIGHT AHEAD	
34776574	5/14/2013	02:16pm	MAPLE AVE	Van Duzer Pl	PROPERTY DAMAGE AND INJURY	COLLISION WITH DEER	Animal	NONE	DAYLIGHT	CLEAR	DRY	SOUTH		ANIMAL'S ACTION		GOING STRAIGHT AHEAD	
36772024	6/17/2017	08:35pm	MAPLE AVE	Colonial Ave	NON-REPORTABLE	COLLISION WITH OTHER FIXED OBJECT	Fixed Object	NONE	DARK-ROAD LIGHTED	CLOUDY	DRY	SOUTH-EAST		DRIVERLESS/RUNAWAY VEHICLE		OTHER	
34617407	10/31/2012	02:06am	VAN DUZER PL	MAPLE AVE	PROPERTY DAMAGE	COLLISION WITH TREE	Fixed Object	TRAFFIC SIGNAL	DARK-ROAD LIGHTED	CLEAR	DRY	NORTH-WEST		ALCOHOL INVOLVEMENT		MAKING LEFT TURN	
36493399	11/24/2016	07:02pm	MAPLE AVE	DUNNING RD	PROPERTY DAMAGE	COLL. W/LIGHT SUPPORT/UTILITY POLE	Fixed Object	NONE	DARK-ROAD LIGHTED	RAIN	WET	NORTH		PAVEMENT SLIPPERY		GOING STRAIGHT AHEAD	
36147400	3/23/2016	03:36pm	MAPLE AVE	PINECREST	PROPERTY DAMAGE AND INJURY	COLL. W/LIGHT SUPPORT/UTILITY POLE	Fixed Object	NO PASSING ZONE	DAYLIGHT	CLEAR	DRY	SOUTH		FELL ASLEEP		GOING STRAIGHT AHEAD	
34616520	1/13/2013	07:31pm	MAIN ST	COLONIAL AVE	PROPERTY DAMAGE AND INJURY	COLLISION WITH OTHER FIXED OBJECT	Fixed Object	YIELD SIGN	DARK-ROAD LIGHTED	CLOUDY	DRY	NORTH		DRIVER INATTENTION		MAKING RIGHT TURN	
35617268	2/18/2015	07:30am	VAN DUZER PL	MAPLE AVE	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	HEAD ON	NONE	DAYLIGHT	CLEAR	DRY	EAST	WEST	GLARE	NOT APPLICABLE	GOING STRAIGHT AHEAD	GOING STRAIGHT AHEAD
36443166	10/25/2016	07:17pm	MAIN ST	Colonial Ave	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	Left Turn	TRAFFIC SIGNAL	DARK-ROAD LIGHTED	CLEAR	DRY	SOUTH-WEST	EAST	DRIVER INATTENTION	NOT APPLICABLE	MAKING LEFT TURN	GOING STRAIGHT AHEAD
35837346	8/7/2015	04:25pm	MAPLE AVE	COLONIAL AVE	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	Left Turn	TRAFFIC SIGNAL	DAYLIGHT	CLEAR	DRY	SOUTH	WEST	NOT APPLICABLE	TURNING IMPROPER	GOING STRAIGHT AHEAD	MAKING LEFT TURN
36150969	3/26/2016	08:30pm	MAPLE AVE	VAN DUZER PL	PROPERTY DAMAGE AND INJURY	COLLISION WITH MOTOR VEHICLE	Left Turn	NONE	DARK-ROAD LIGHTED	CLEAR	DRY	NORTH-WEST	NORTH	NOT APPLICABLE	OTHER (VEHICLE)	MAKING LEFT TURN	STOPPED IN TRAFFIC
36716331	5/6/2017	12:33pm	MAPLE AVE	Colonial Ave	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	LEFT TURN (AGAINST OTHER C	TRAFFIC SIGNAL	DAYLIGHT	CLOUDY	DRY	NORTH	EAST	OTHER (VEHICLE)	TURNING IMPROPER	GOING STRAIGHT AHEAD	MAKING LEFT TURN
35544576	1/4/2015	05:00pm	MAPLE AVE	VAN DUZER PL	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	LEFT TURN (WITH OTHER CAR)	STOP SIGN	DARK-ROAD LIGHTED	CLEAR	DRY	NORTH-WEST	NORTH	DRIVER INATTENTION	NOT APPLICABLE	MAKING LEFT TURN	MAKING LEFT TURN
35436462	9/27/2014	03:38pm	MAPLE AVE	Grand St	PROPERTY DAMAGE AND INJURY	COLLISION WITH MOTOR VEHICLE	LEFT TURN (WITH OTHER CAR)	NONE	DAYLIGHT	CLEAR	DRY	NORTH	NORTH	FAILURE TO YIELD RIGHT OF WAY	NOT APPLICABLE	MAKING U TURN	GOING STRAIGHT AHEAD
35640154	3/6/2015	10:30am	VAN DUZER PL	MAPLE AVE	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	OTHER	NONE	DAYLIGHT	CLEAR	DRY	SOUTH	EAST	DRIVER INATTENTION	NOT APPLICABLE	BACKING	PARKED
35855747	8/20/2015	04:14pm	MAPLE AVE	MAIN ST	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	OTHER	NONE	DAYLIGHT	CLOUDY	DRY	EAST	WEST	NOT APPLICABLE	BACKING UNSAFELY	STOPPED IN TRAFFIC	BACKING
35411908	9/16/2014	02:45pm	MAIN ST	Colonial Ave	NON-REPORTABLE	COLLISION WITH MOTOR VEHICLE	OVERTAKING	TRAFFIC SIGNAL	DAYLIGHT	CLEAR	DRY	SOUTH-WEST	SOUTH-WEST	NOT APPLICABLE	DRIVER INATTENTION	GOING STRAIGHT AHEAD	MAKING LEFT TURN
36139298	3/14/2016	01:08pm	MAPLE AVE	Grand St	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	OVERTAKING	NO PASSING ZONE	DAYLIGHT	CLEAR	DRY	SOUTH	SOUTH	DRIVER INATTENTION	NOT APPLICABLE	STARTING FROM PARKING	GOING STRAIGHT AHEAD
35498175	11/24/2014	06:43pm	MAPLE AVE	GRAND ST	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	OVERTAKING	NONE	DARK-ROAD LIGHTED	CLEAR	DRY	NORTH	NORTH	DRIVER INATTENTION	NOT APPLICABLE	STARTING FROM PARKING	PARKED
36196838	5/6/2016	03:30pm	MAPLE AVE	MAIN ST	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	OVERTAKING	TRAFFIC SIGNAL	DAYLIGHT	RAIN	WET	EAST	EAST	DRIVER INATTENTION	NOT APPLICABLE	MAKING RIGHT TURN	MAKING RIGHT TURN
35732799	5/22/2015	02:33pm	MAIN ST	Ramp	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	OVERTAKING	TRAFFIC SIGNAL	DAYLIGHT	CLEAR	DRY	NORTH	NORTH	DRIVER INATTENTION	NOT APPLICABLE	GOING STRAIGHT AHEAD	MAKING RIGHT TURN
36790142	6/30/2017	02:22pm	MAPLE AVE	Colonial Ave	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	OVERTAKING	TRAFFIC SIGNAL	DAYLIGHT	CLEAR	DRY	SOUTH	SOUTH	DRIVER INATTENTION	NOT APPLICABLE	CHANGING LANES	GOING STRAIGHT AHEAD
34637036	1/25/2013	04:00pm	COLONIAL AVE	MAIN ST	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	OVERTAKING	TRAFFIC SIGNAL	DAYLIGHT	CLOUDY	DRY	WEST	WEST	PASSING OR LANE USAGE IMPROPERLY	NOT APPLICABLE	MAKING LEFT TURN	MAKING RIGHT TURN
35082407	1/8/2014	02:20pm	MAIN ST	COLONIAL AVE	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	OVERTAKING	NONE	DAYLIGHT	CLEAR	DRY	EAST	EAST	NOT APPLICABLE	BACKING UNSAFELY	PARKED	BACKING
35952701	10/15/2015	01:35pm	MAPLE AVE	COLONIAL AVE	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	OVERTAKING	TRAFFIC SIGNAL	DAYLIGHT	CLEAR	DRY	SOUTH	SOUTH	GLARE	OTHER (VEHICLE)	GOING STRAIGHT AHEAD	PARKED
35512200	12/15/2014	03:24pm	MAPLE AVE	GRAND ST	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	OVERTAKING	NONE	DAYLIGHT	CLEAR	DRY	WEST	WEST	DRIVER INATTENTION	NOT APPLICABLE	ENTERING PARKED POSITION	PARKED
36418703	9/28/2016	08:36am	COLONIAL AVE	Ramp	INJURY	COLLISION WITH PEDESTRIAN	Pedestrian	NO PASSING ZONE	DAYLIGHT	CLEAR	DRY	NORTH	NOT APPLICAB	NOT APPLICABLE	PEDESTRIAN'S ERROR/CONFUSION	GOING STRAIGHT AHEAD	NOT APPLICABLE
36700466	4/20/2017	09:16pm	MAPLE AVE	Unnamed Street	PROPERTY DAMAGE AND INJURY	COLLISION WITH PEDESTRIAN	Pedestrian	NO PASSING ZONE	DARK-ROAD LIGHTED	CLEAR	DRY	NORTH	NOT APPLICAB	NOT APPLICABLE	PEDESTRIAN'S ERROR/CONFUSION	GOING STRAIGHT AHEAD	NOT APPLICABLE
34777777	5/11/2013	12:00pm	MAIN ST	COLONIAL AVE	PROPERTY DAMAGE AND INJURY	COLLISION WITH OTHER PEDESTRIAN	Pedestrian	NO PASSING ZONE	DAYLIGHT	CLEAR	DRY	NOT APPLICABI	NORTH	FAILURE TO YIELD RIGHT OF WAY	NOT APPLICABLE	NOT APPLICABLE	GOING STRAIGHT AHEAD
34910004	8/16/2013	04:39pm	MAPLE AVE	GRAND ST	INJURY	COLLISION WITH MOTOR VEHICLE	Rear End	NO PASSING ZONE	DAYLIGHT	CLEAR	DRY	SOUTH	SOUTH	BRAKES DEFECTIVE	NOT APPLICABLE	GOING STRAIGHT AHEAD	STOPPED IN TRAFFIC
34509484	11/3/2012	08:52pm	MAIN ST	MAPLE AVE	NON-REPORTABLE	COLLISION WITH MOTOR VEHICLE	REAR END	NO PASSING ZONE	DARK-ROAD LIGHTED	CLEAR	DRY	NORTH	NORTH	NOT APPLICABLE	ALCOHOL INVOLVEMENT	STOPPED IN TRAFFIC	STARTING IN TRAFFIC
35449099	10/23/2014	02:15pm	MAIN ST	COLONIAL AVE	NON-REPORTABLE	COLLISION WITH MOTOR VEHICLE	REAR END	NONE	DAYLIGHT	CLEAR	DRY	NORTH-WEST	NORTH-EAST	DRIVER INATTENTION	NOT APPLICABLE	BACKING	SLOWED OR STOPPING
35829991	7/31/2015	11:42am	COLONIAL AVE	MAIN ST	NON-REPORTABLE	COLLISION WITH MOTOR VEHICLE	REAR END	TRAFFIC SIGNAL	DAYLIGHT	CLEAR	DRY	SOUTH-WEST	SOUTH-WEST	DRIVER INATTENTION	NOT APPLICABLE	GOING STRAIGHT AHEAD	STARTING IN TRAFFIC
34707080	3/21/2013	02:02pm	COLONIAL AVE	MAIN ST	NON-REPORTABLE	COLLISION WITH MOTOR VEHICLE	REAR END	YIELD SIGN	DAYLIGHT	CLEAR	WET	NORTH-EAST	NORTH-EAST	NOT APPLICABLE	FOLLOWING TOO CLOSELY	SLOWED OR STOPPING	GOING STRAIGHT AHEAD
36297063	7/5/2016	12:57pm	MAPLE AVE	Colonial Ave	NON-REPORTABLE	COLLISION WITH MOTOR VEHICLE	REAR END	TRAFFIC SIGNAL	DAYLIGHT	CLEAR	DRY	SOUTH	SOUTH	NOT APPLICABLE	DRIVER INATTENTION	STOPPED IN TRAFFIC	GOING STRAIGHT AHEAD
34615865	1/2/2013	03:35pm	STATE HWY 17A	Colonial Ave	NON-REPORTABLE	COLLISION WITH MOTOR VEHICLE	REAR END	NONE	DAYLIGHT	CLOUDY	DRY	WEST	NORTH	NOT APPLICABLE	BACKING UNSAFELY	PARKED	BACKING
34596304	12/18/2012	05:35pm	MAPLE AVE	PINECREST	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	REAR END	NONE	DARK-ROAD LIGHTED	CLEAR	DRY	NORTH	NORTH	DRIVER INATTENTION	NOT APPLICABLE	GOING STRAIGHT AHEAD	MAKING LEFT TURN
36426887	10/15/2016	08:37pm	MAPLE AVE	Van Duzer Pl	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	REAR END	NONE	DARK-ROAD LIGHTED	CLEAR	DRY	NORTH	NORTH	ALCOHOL INVOLVEMENT	NOT APPLICABLE	GOING STRAIGHT AHEAD	MAKING LEFT TURN
34993566	10/8/2013	03:45pm	MAPLE AVE	Van Duzer Pl	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	REAR END	NONE	DAYLIGHT	RAIN	WET	EAST	EAST	UNSAFE SPEED	NOT APPLICABLE	SLOWED OR STOPPING	MAKING LEFT TURN
35628195	2/14/2015	02:43pm	MAPLE AVE	Grand St	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	REAR END	NO PASSING ZONE	DAYLIGHT	CLOUDY	WET	NORTH	NORTH	FOLLOWING TOO CLOSELY	NOT APPLICABLE	GOING STRAIGHT AHEAD	GOING STRAIGHT AHEAD
36439934	10/12/2016	11:00am	MAPLE AVE	Grand St	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	REAR END	NONE	DAYLIGHT	CLEAR	DRY	SOUTH	EAST	DRIVER INATTENTION	NOT APPLICABLE	BACKING	PARKED
34939265	9/11/2013	03:30pm	COLONIAL AVE	MAIN ST	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	REAR END	TRAFFIC SIGNAL	DAYLIGHT	CLEAR	DRY	WEST	WEST	FOLLOWING TOO CLOSELY	NOT APPLICABLE	GOING STRAIGHT AHEAD	STOPPED IN TRAFFIC
35638842	3/6/2015	10:35am	COLONIAL AVE	MAPLE AVE	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	REAR END	TRAFFIC SIGNAL	DAYLIGHT	CLEAR	WET	WEST	WEST	FOLLOWING TOO CLOSELY	NOT APPLICABLE	SLOWED OR STOPPING	STOPPED IN TRAFFIC
35945545	10/7/2015	04:30pm	COLONIAL AVE	MAPLE AVE	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	REAR END	TRAFFIC SIGNAL	DAYLIGHT	CLEAR	DRY	WEST	WEST	UNKNOWN	VIEW OBSTRUCTED/LIMITED	MAKING RIGHT TURN	MAKING LEFT TURN
34891341	8/17/2013	04:15pm	COLONIAL AVE	MAPLE AVE	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	REAR END	NONE	DAYLIGHT	CLEAR	DRY	NORTH	SOUTH-EAST	DRIVER INATTENTION	NOT APPLICABLE	BACKING	PARKED
36571660	1/13/2017	08:35am	MAPLE AVE	COLONIAL AVE	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	REAR END	TRAFFIC SIGNAL	DAYLIGHT	CLEAR	DRY	NORTH	NORTH-EAST	DRIVER INATTENTION	NOT APPLICABLE	MAKING RIGHT TURN	MAKING RIGHT TURN
36261169	5/30/2016	03:57pm	MAPLE AVE	Grand St	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	REAR END	NONE	DAYLIGHT	CLEAR	DRY	NORTH	NORTH	REACTION TO OTHER UNINVOLVED VEHICL	REACTION TO OTHER UNINVOLVED VEHICL	SLOWED OR STOPPING	SLOWED OR STOPPING
36796463	7/4/2017	11:45pm	MAPLE AVE	Grand St	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	REAR END	NONE	DARK-ROAD LIGHTED	CLEAR	DRY	SOUTH	SOUTH	VIEW OBSTRUCTED/LIMITED	NOT APPLICABLE	BACKING	PARKED
35587837	1/30/2015	03:30pm	MAPLE AVE	DUNNING RD	PROPERTY DAMAGE AND INJURY	COLLISION WITH MOTOR VEHICLE	REAR END	NONE	DAYLIGHT	CLEAR	DRY	SOUTH	SOUTH	NOT APPLICABLE	DRIVER INATTENTION	SLOWED OR STOPPING	GOING STRAIGHT AHEAD
35371569	8/19/2014	12:20pm	[Route] 94	PINECREST	PROPERTY DAMAGE AND INJURY	COLLISION WITH MOTOR VEHICLE	Rear End	NO PASSING ZONE	DAYLIGHT	CLEAR	DRY	NORTH	NORTH	DRIVER INATTENTION	NOT APPLICABLE	GOING STRAIGHT AHEAD	SLOWED OR STOPPING
36224916	5/13/2016	08:42am	MAPLE AVE	Pinecrest	PROPERTY DAMAGE AND INJURY	COLLISION WITH MOTOR VEHICLE	REAR END	NONE	DAYLIGHT	CLEAR	DRY	NORTH	NORTH	FELL ASLEEP	NOT APPLICABLE	GOING STRAIGHT AHEAD	GOING STRAIGHT AHEAD
34961798	10/5/2013	02:27pm	MAPLE AVE	Driveway	PROPERTY DAMAGE AND INJURY	COLLISION WITH MOTOR VEHICLE	Rear End	NONE	DAYLIGHT	CLEAR	DRY	NORTH	NORTH	NOT APPLICABLE	OTHER (VEHICLE)	GOING STRAIGHT AHEAD	GOING STRAIGHT AHEAD
34473850	10/12/2012	07:30am	MAPLE AVE	COLONIAL AVE	PROPERTY DAMAGE AND INJURY	COLLISION WITH MOTOR VEHICLE	REAR END	NONE	DAYLIGHT	CLOUDY	DRY	NORTH	NORTH	NOT APPLICABLE	BRAKES DEFECTIVE	GOING STRAIGHT AHEAD	GOING STRAIGHT AHEAD
36426885	10/11/2016	11:30am	MAPLE AVE	COLONIAL AVE	PROPERTY DAMAGE AND INJURY	COLLISION WITH MOTOR VEHICLE	REAR END	TRAFFIC SIGNAL	DAYLIGHT	CLEAR	DRY	NORTH	NORTH	FOLLOWING TOO CLOSELY	NOT APPLICABLE	GOING STRAIGHT AHEAD	STOPPED IN TRAFFIC
34514831	11/7/2012	12:30pm	MAPLE AVE	COLONIAL AVE	PROPERTY DAMAGE AND INJURY	COLLISION WITH MOTOR VEHICLE	REAR END	NO PASSING ZONE	DAYLIGHT	CLOUDY	DRY	NORTH	NORTH-EAST	DRIVER INATTENTION	NOT APPLICABLE	GOING STRAIGHT AHEAD	MAKING RIGHT TURN
35748824	5/26/2015	12:45pm	VAN DUZER PL	MAPLE AVE	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	RIGHT ANGLE	NONE	DAYLIGHT	CLEAR	DRY	SOUTH	NORTH	BACKING UNSAFELY	NOT APPLICABLE	BACKING	PARKED
35841338	8/13/2015	09:50am	VAN DUZER PL	MAPLE AVE	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	RIGHT ANGLE	NONE	DAYLIGHT	CLEAR	DRY	SOUTH	EAST	DRIVER INATTENTION	NOT APPLICABLE	BACKING	PARKED
34534546	11/19/2012	05:20pm	MAPLE AVE	COLONIAL AVE	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	RIGHT ANGLE	TRAFFIC SIGNAL	DARK-ROAD LIGHTED	CLEAR	DRY	SOUTH	SOUTH	OTHER (VEHICLE)	FAILURE TO YIELD RIGHT OF WAY	GOING STRAIGHT AHEAD	MAKING LEFT TURN
35807447	7/15/2015	08:40am	MAIN ST	COLONIAL AVE	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	RIGHT ANGLE	TRAFFIC SIGNAL	DAYLIGHT	CLOUDY	DRY	NORTH	SOUTH	FAILURE TO YIELD RIGHT OF WAY	NOT APPLICABLE	MAKING LEFT TURN	GOING STRAIGHT AHEAD
36813870	7/18/2017	05:08pm	MAIN ST	Ramp	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	RIGHT ANGLE	NONE	DAYLIGHT	CLEAR	DRY	WEST	NORTH	DRIVER INATTENTION	NOT APPLICABLE	BACKING	STARTING FROM PARKING
35532480	12/20/2014	03:20pm	MAPLE AVE	Colonial Ave	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	RIGHT ANGLE	NONE	DAYLIGHT	CLOUDY	DRY	WEST	NORTH	DRIVER INATTENTION	NOT APPLICABLE	STARTING IN TRAFFIC	GOING STRAIGHT AHEAD
34884182	8/8/2013	10:09am	MAPLE AVE	GRAND ST	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	RIGHT ANGLE	NONE	DAYLIGHT	CLEAR	DRY	WEST	SOUTH	NOT APPLICABLE	BACKING UNSAFELY	GOING STRAIGHT AHEAD	BACKING
34698333	3/5/2013	02:54pm	MAPLE AVE	COLONIAL AVE	NON-REPORTABLE	COLLISION WITH MOTOR VEHICLE	RIGHT TURN (AGAINST OTHER (	NONE	DAYLIGHT	CLEAR	DRY	SOUTH	EAST	NOT APPLICABLE	DRIVER INATTENTION	GOING STRAIGHT AHEAD	MAKING RIGHT TURN
34488835	10/14/2012	04:00pm	MAPLE AVE	Grand St	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	RIGHT TURN (AGAINST OTHER (	STOP SIGN	DAYLIGHT	CLEAR	DRY	EAST	SOUTH	FAILURE TO YIELD RIGHT OF WAY	NOT APPLICABLE	STOPPED IN TRAFFIC	GOING STRAIGHT AHEAD
34839071	6/30/2013	09:59am	MAPLE AVE	Colonial Ave	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	RIGHT TURN (WITH OTHER CAR	NONE	DAYLIGHT	CLEAR	DRY	SOUTH-WEST	SOUTH	DRIVER INATTENTION	NOT APPLICABLE	MAKING RIGHT TURN	GOING STRAIGHT AHEAD
36573620	12/31/2016	08:00am	MAPLE AVE	Unnamed Street	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	SIDESWIPE	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	NOT ENTERED	NOT ENTERED	BACKING	PARKED
36637486	2/15/2017	10:55pm	GRAND ST	Driveway	NON-REPORTABLE	COLLISION WITH DEER	Animal	NONE	DARK-ROAD LIGHTED	CLOUDY	WET	EAST		ANIMAL'S ACTION		GOING STRAIGHT AHEAD	
36295211	6/14/2016	03:40pm	GRAND ST	FAIRVIEW AVE	PROPERTY DAMAGE	COLLISION WITH DEER	Animal	NONE	DAYLIGHT	CLEAR	DRY	EAST		NOT ENTERED	NOT ENTERED	OTHER	
35722103	5/8/2015	08:54pm	GRAND ST	CHERRY ST	NON-REPORTABLE	COLL. W/EARTH ELE./ROCK CUT/DITCH	Fixed Object	NONE	DARK-ROAD LIGHTED	CLOUDY	DRY	NORTH-WEST		ALCOHOL INVOLVEMENT		MAKING LEFT TURN	
34975926	10/25/2013	03:45am	GRAND ST	CHERRY ST	PROPERTY DAMAGE AND INJURY	COLLISION WITH MOTOR VEHICLE	LEFT TURN (AGAINST OTHER C	NO PASSING ZONE	DARK-ROAD LIGHTED	CLEAR	DRY	SOUTH	NORTH	ALCOHOL INVOLVEMENT	NOT APPLICABLE	GOING STRAIGHT AHEAD	PARKED
36493398	11/6/2016	05:30pm	CHERRY ST	GRAND ST	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	OTHER	NONE	DARK-ROAD LIGHTED	CLEAR	DRY	NORTH	UNKNOWN	BACKING UNSAFELY	NOT APPLICABLE	STARTING FROM PARKING	PARKED
36789333	6/13/2017	08:15am	GRAND ST	Maple Ave	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	OTHER	NONE	DAYLIGHT	CLEAR	DRY	EAST	SOUTH-EAST	BACKING UNSAFELY	NOT APPLICABLE	BACKING	ENTERING PARKED POSITION
36135903	3/10/2016	10:30am	GRAND ST		NON-REPORTABLE	COLLISION WITH MOTOR VEHICLE	OVERTAKING	NONE	DAYLIGHT	CLOUDY	DRY	WEST	WEST	DRIVER INATTENTION	OTHER (VEHICLE)	GOING STRAIGHT AHEAD	PARKED
36807183	7/9/2017	09:30pm	CHERRY ST	Grand St	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	OVERTAKING	NONE	DARK-ROAD LIGHTED	CLEAR	DRY	SOUTH	SOUTH	DRIVER INATTENTION	NOT APPLICABLE	GOING STRAIGHT AHEAD	PARKED
35979279	11/17/2015	05:32pm	GRAND ST	Cherry St	FATAL	COLLISION WITH PEDESTRIAN	Pedestrian	NONE	DARK-ROAD LIGHTED	CLOUDY	DRY	NORTH-WEST	NOT APPLICAB	FAILURE TO YIELD RIGHT OF WAY	NOT APPLICABLE	GOING STRAIGHT AHEAD	NOT APPLICABLE
34653207	1/31/2013	02:50pm	GRAND ST	Cherry St	NON-REPORTABLE	COLLISION WITH MOTOR VEHICLE	REAR END	NONE	DAYLIGHT	CLEAR	DRY	NORTH	EAST	DRIVER INATTENTION	NOT APPLICABLE	BACKING	GOING STRAIGHT AHEAD
35918908	10/11/2015	01:15pm	GRAND ST	Maple Ave	NON-REPORTABLE	COLLISION WITH MOTOR VEHICLE	REAR END	STOP SIGN	DAYLIGHT	CLEAR	DRY	EAST	EAST	NOT APPLICABLE	UNSAFE SPEED	STOPPED IN TRAFFIC	GOING STRAIGHT AHEAD
34851994	7/15/2013	01:00pm	GRAND ST	CHERRY ST	PROPERTY DAMAGE AND INJURY	COLLISION WITH MOTOR VEHICLE	REAR END	NO PASSING ZONE	DAYLIGHT	CLEAR	DRY	WEST	WEST	NOT APPLICABLE	DRIVER INATTENTION	MAKING LEFT TURN	GOING STRAIGHT AHEAD
36373973	9/5/2016	08:20am	WOODSIDE DR	Crescent Ave	NON-REPORTABLE	COLLISION WITH MOTOR VEHICLE	OTHER	NONE	DAYLIGHT	CLEAR	DRY	WEST	SOUTH	DRIVER INATTENTION	NOT APPLICABLE	BACKING	PARKED
36140864	3/19/2016	11:35pm	WOODSIDE DR	LOCUST ST	PROPERTY DAMAGE	COLLISION WITH MOTOR VEHICLE	OVERTAKING	NO PASSING ZONE	DARK-ROAD LIGHTED	CLEAR	DRY	NORTH	NORTH	ANIMAL'S ACTION	NOT APPLICABLE	GOING STRAIGHT AHEAD	PARKED
36109701	2/22/2016	02:30pm	WOODSIDE DR	Driveway	PROPERTY DAMAGE	COLLISION WITH OTHER FIXED OBJECT	Fixed Object	NONE	DAYLIGHT	CLEAR	DRY	SOUTH		DRIVER INATTENTION		GOING STRAIGHT AHEAD	

Attachment D
Level of Service Analyses

Village View Subdivision
Village of Warwick, New York

LOS Definitions

The following is an excerpt from the 2010 Highway Capacity Manual (HCM).

Level of Service Criteria for Unsignalized Intersections

Level of service (LOS) for Two-Way Stop-Controlled (TWSC) intersections is determined by the computed or measured control delay. For motor vehicles, LOS is determined for each minor-street movement (or shared movement) as well as major-street left turns by using criteria given in Exhibit 19-1. LOS is not defined for the intersection as a whole or for major-street approaches for three primary reasons: (a) major-street through vehicles are assumed to experience zero delay; (b) the disproportionate number of major-street through vehicles at a typical TWSC intersection skews the weighted average of all movements, resulting in a very low overall average delay for all vehicles; and (c) the resulting low delay can mask important LOS deficiencies for minor movements. LOS F is assigned to the movement if the volume-to-capacity (v/c) ratio for the movement exceeds 1.0, regardless of the control delay.

The LOS criteria for TWSC intersections are somewhat different from the criteria used in Chapter 18 for signalized intersections, primarily because user perceptions differ among transportation facility types. The expectation is that a signalized intersection is designed to carry higher traffic volumes and will present greater delay than an unsignalized intersection. Unsignalized intersections are also associated with more uncertainty for users, as delays are less predictable than they are at signals, which can reduce users' delay tolerance.

The LOS criteria for All-Way Stop-Controlled (AWSC) intersections are given in Exhibit 20-2. LOS F is assigned if the v/c ratio of a lane exceeds 1.0, regardless of the control delay. For assessment of LOS at the approach and intersection levels, LOS is based solely on control delay.

Exhibits 19-1/20-2:
Level-of-Service Criteria for Stop Controlled Intersections

Control Delay (s/veh)	LOS by Volume-to-Capacity Ratio	
	v/c ≤ 1.0	v/c ≥ 1.0
10.0	A	F
>10.0 and ≤ 15.0	B	F
>15.0 and ≤ 25.0	C	F
>25.0 and ≤ 35.0	D	F
>35.0 and ≤ 50.0	E	F
>50.0	F	F

Intersection	
Intersection Delay, s/veh	7.1
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	23	6	8	11	1	12
Future Vol, veh/h	23	6	8	11	1	12
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	0	0	25	27	0	8
Mvmt Flow	27	7	9	13	1	14
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	7	7.6	6.5
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	8%	0%	42%
Vol Thru, %	0%	79%	58%
Vol Right, %	92%	21%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	13	29	19
LT Vol	1	0	8
Through Vol	0	23	11
RT Vol	12	6	0
Lane Flow Rate	15	34	22
Geometry Grp	1	1	1
Degree of Util (X)	0.015	0.036	0.028
Departure Headway (Hd)	3.458	3.82	4.462
Convergence, Y/N	Yes	Yes	Yes
Cap	1033	941	806
Service Time	1.485	1.829	2.469
HCM Lane V/C Ratio	0.015	0.036	0.027
HCM Control Delay	6.5	7	7.6
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0	0.1	0.1

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	17	26	14	332	262	9
Future Vol, veh/h	17	26	14	332	262	9
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, %	-4	-	-	5	-5	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	21	4	3	22
Mvmt Flow	18	28	15	353	279	10

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	667	284	289	0	-	0
Stage 1	284	-	-	-	-	-
Stage 2	383	-	-	-	-	-
Critical Hdwy	5.6	5.8	4.31	-	-	-
Critical Hdwy Stg 1	4.6	-	-	-	-	-
Critical Hdwy Stg 2	4.6	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.389	-	-	-
Pot Cap-1 Maneuver	495	784	1172	-	-	-
Stage 1	819	-	-	-	-	-
Stage 2	755	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	487	784	1172	-	-	-
Mov Cap-2 Maneuver	487	-	-	-	-	-
Stage 1	806	-	-	-	-	-
Stage 2	755	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.1	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1172	-	632	-	-
HCM Lane V/C Ratio	0.013	-	0.072	-	-
HCM Control Delay (s)	8.1	0	11.1	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection						
Int Delay, s/veh	4.1					

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	29	152	114	325	290	35
Future Vol, veh/h	29	152	114	325	290	35
Conflicting Peds, #/hr	0	0	2	0	0	2
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, %	10	7	11	3	7	3
Mvmt Flow	33	171	128	365	326	39

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	969	348	367	0	-	0
Stage 1	348	-	-	-	-	-
Stage 2	621	-	-	-	-	-
Critical Hdwy	6.5	6.27	4.21	-	-	-
Critical Hdwy Stg 1	5.5	-	-	-	-	-
Critical Hdwy Stg 2	5.5	-	-	-	-	-
Follow-up Hdwy	3.59	3.363	2.299	-	-	-
Pot Cap-1 Maneuver	272	684	1144	-	-	-
Stage 1	697	-	-	-	-	-
Stage 2	521	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	233	682	1141	-	-	-
Mov Cap-2 Maneuver	233	-	-	-	-	-
Stage 1	597	-	-	-	-	-
Stage 2	520	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.3	2.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1141	-	521	-	-
HCM Lane V/C Ratio	0.112	-	0.39	-	-
HCM Control Delay (s)	8.6	0	16.3	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.4	-	1.8	-	-

Intersection

Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↱		Y	
Traffic Vol, veh/h	2	204	99	7	13	1
Future Vol, veh/h	2	204	99	7	13	1
Conflicting Peds, #/hr	1	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	7	14	14	8	0
Mvmt Flow	2	222	108	8	14	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	117	0	-	0	339	113
Stage 1	-	-	-	-	113	-
Stage 2	-	-	-	-	226	-
Critical Hdwy	4.1	-	-	-	6.48	6.2
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	2.2	-	-	-	3.572	3.3
Pot Cap-1 Maneuver	1484	-	-	-	645	945
Stage 1	-	-	-	-	897	-
Stage 2	-	-	-	-	798	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1482	-	-	-	642	944
Mov Cap-2 Maneuver	-	-	-	-	642	-
Stage 1	-	-	-	-	894	-
Stage 2	-	-	-	-	797	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	10.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1482	-	-	-	657
HCM Lane V/C Ratio	0.001	-	-	-	0.023
HCM Control Delay (s)	7.4	0	-	-	10.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	168	1	11	79	10	5	1	15	23	2	10
Future Vol, veh/h	5	168	1	11	79	10	5	1	15	23	2	10
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	6	0	18	14	20	20	0	7	9	0	0
Mvmt Flow	5	181	1	12	85	11	5	1	16	25	2	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.3	8.2	7.7	7.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	24%	3%	11%	66%
Vol Thru, %	5%	97%	79%	6%
Vol Right, %	71%	1%	10%	29%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	21	174	100	35
LT Vol	5	5	11	23
Through Vol	1	168	79	2
RT Vol	15	1	10	10
Lane Flow Rate	23	187	108	38
Geometry Grp	1	1	1	1
Degree of Util (X)	0.029	0.212	0.132	0.049
Departure Headway (Hd)	4.561	4.088	4.414	4.697
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	789	866	801	767
Service Time	2.563	2.169	2.505	2.698
HCM Lane V/C Ratio	0.029	0.216	0.135	0.05
HCM Control Delay	7.7	8.3	8.2	7.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.8	0.5	0.2

Intersection	
Intersection Delay, s/veh	7.2
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	12	7	23	28	10	12
Future Vol, veh/h	12	7	23	28	10	12
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles, %	0	0	0	0	10	8
Mvmt Flow	16	9	30	36	13	16
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	6.9	7.4	7.2
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	45%	0%	45%
Vol Thru, %	0%	63%	55%
Vol Right, %	55%	37%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	22	19	51
LT Vol	10	0	23
Through Vol	0	12	28
RT Vol	12	7	0
Lane Flow Rate	29	25	66
Geometry Grp	1	1	1
Degree of Util (X)	0.032	0.026	0.075
Departure Headway (Hd)	3.991	3.778	4.058
Convergence, Y/N	Yes	Yes	Yes
Cap	894	947	884
Service Time	2.029	1.805	2.075
HCM Lane V/C Ratio	0.032	0.026	0.075
HCM Control Delay	7.2	6.9	7.4
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.1	0.1	0.2

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	14	15	39	315	438	25
Future Vol, veh/h	14	15	39	315	438	25
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, %	-4	-	-	5	-5	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	7	7	3	3	3	0
Mvmt Flow	15	16	43	346	481	27

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	927	495	508	0	-	0
Stage 1	495	-	-	-	-	-
Stage 2	432	-	-	-	-	-
Critical Hdwy	5.67	5.87	4.13	-	-	-
Critical Hdwy Stg 1	4.67	-	-	-	-	-
Critical Hdwy Stg 2	4.67	-	-	-	-	-
Follow-up Hdwy	3.563	3.363	2.227	-	-	-
Pot Cap-1 Maneuver	359	596	1052	-	-	-
Stage 1	672	-	-	-	-	-
Stage 2	709	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	341	596	1052	-	-	-
Mov Cap-2 Maneuver	341	-	-	-	-	-
Stage 1	638	-	-	-	-	-
Stage 2	709	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.9	0.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1052	-	438	-	-
HCM Lane V/C Ratio	0.041	-	0.073	-	-
HCM Control Delay (s)	8.6	0	13.9	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

Intersection	
Int Delay, s/veh	5.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	39	144	189	342	405	49
Future Vol, veh/h	39	144	189	342	405	49
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	93	93	93	93	93	93
Heavy Vehicles, %	8	1	2	2	1	4
Mvmt Flow	42	155	203	368	435	53

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1236	462	488	0	-	0
Stage 1	462	-	-	-	-	-
Stage 2	774	-	-	-	-	-
Critical Hdwy	6.48	6.21	4.12	-	-	-
Critical Hdwy Stg 1	5.48	-	-	-	-	-
Critical Hdwy Stg 2	5.48	-	-	-	-	-
Follow-up Hdwy	3.572	3.309	2.218	-	-	-
Pot Cap-1 Maneuver	189	602	1075	-	-	-
Stage 1	622	-	-	-	-	-
Stage 2	444	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	144	602	1075	-	-	-
Mov Cap-2 Maneuver	144	-	-	-	-	-
Stage 1	475	-	-	-	-	-
Stage 2	444	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	26.5	3.2	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1075	-	359	-	-
HCM Lane V/C Ratio	0.189	-	0.548	-	-
HCM Control Delay (s)	9.1	0	26.5	-	-
HCM Lane LOS	A	A	D	-	-
HCM 95th %tile Q(veh)	0.7	-	3.1	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰↑	↑↱		Y	
Traffic Vol, veh/h	1	130	244	21	9	1
Future Vol, veh/h	1	130	244	21	9	1
Conflicting Peds, #/hr	6	0	0	6	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	1	0	5	0	0
Mvmt Flow	1	144	271	23	10	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	300	0	-	0	435	289
Stage 1	-	-	-	-	289	-
Stage 2	-	-	-	-	146	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1273	-	-	-	582	755
Stage 1	-	-	-	-	765	-
Stage 2	-	-	-	-	886	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1264	-	-	-	573	750
Mov Cap-2 Maneuver	-	-	-	-	573	-
Stage 1	-	-	-	-	759	-
Stage 2	-	-	-	-	880	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	11.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1264	-	-	-	587
HCM Lane V/C Ratio	0.001	-	-	-	0.019
HCM Control Delay (s)	7.9	0	-	-	11.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	96	1	30	187	28	1	1	10	24	2	10
Future Vol, veh/h	13	96	1	30	187	28	1	1	10	24	2	10
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	2	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	14	103	1	32	201	30	1	1	11	26	2	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8	8.8	7.4	8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	8%	12%	12%	67%
Vol Thru, %	8%	87%	76%	6%
Vol Right, %	83%	1%	11%	28%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	12	110	245	36
LT Vol	1	13	30	24
Through Vol	1	96	187	2
RT Vol	10	1	28	10
Lane Flow Rate	13	118	263	39
Geometry Grp	1	1	1	1
Degree of Util (X)	0.015	0.138	0.295	0.051
Departure Headway (Hd)	4.285	4.206	4.033	4.703
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	840	839	880	766
Service Time	2.287	2.301	2.104	2.703
HCM Lane V/C Ratio	0.015	0.141	0.299	0.051
HCM Control Delay	7.4	8	8.8	8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0	0.5	1.2	0.2

Intersection	
Intersection Delay, s/veh	7.2
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	33	6	8	14	1	12
Future Vol, veh/h	33	6	8	14	1	12
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	0	0	25	27	0	8
Mvmt Flow	39	7	9	16	1	14
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	7.1	7.6	6.6
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	8%	0%	36%
Vol Thru, %	0%	85%	64%
Vol Right, %	92%	15%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	13	39	22
LT Vol	1	0	8
Through Vol	0	33	14
RT Vol	12	6	0
Lane Flow Rate	15	46	26
Geometry Grp	1	1	1
Degree of Util (X)	0.015	0.049	0.032
Departure Headway (Hd)	3.485	3.855	4.46
Convergence, Y/N	Yes	Yes	Yes
Cap	1023	932	806
Service Time	1.518	1.864	2.469
HCM Lane V/C Ratio	0.015	0.049	0.032
HCM Control Delay	6.6	7.1	7.6
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0	0.2	0.1

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	21	32	16	337	266	10
Future Vol, veh/h	21	32	16	337	266	10
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, %	-4	-	-	5	-5	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	21	4	3	22
Mvmt Flow	22	34	17	359	283	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	682	289	294	0	-	0
Stage 1	289	-	-	-	-	-
Stage 2	393	-	-	-	-	-
Critical Hdwy	5.6	5.8	4.31	-	-	-
Critical Hdwy Stg 1	4.6	-	-	-	-	-
Critical Hdwy Stg 2	4.6	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.389	-	-	-
Pot Cap-1 Maneuver	487	780	1167	-	-	-
Stage 1	816	-	-	-	-	-
Stage 2	749	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	478	780	1167	-	-	-
Mov Cap-2 Maneuver	478	-	-	-	-	-
Stage 1	801	-	-	-	-	-
Stage 2	749	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.3	0.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1167	-	624	-	-
HCM Lane V/C Ratio	0.015	-	0.09	-	-
HCM Control Delay (s)	8.1	0	11.3	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	29	154	116	332	300	36
Future Vol, veh/h	29	154	116	332	300	36
Conflicting Peds, #/hr	0	0	2	0	0	2
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, %	10	7	11	3	7	3
Mvmt Flow	33	173	130	373	337	40

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	992	359	379	0	-	0
Stage 1	359	-	-	-	-	-
Stage 2	633	-	-	-	-	-
Critical Hdwy	6.5	6.27	4.21	-	-	-
Critical Hdwy Stg 1	5.5	-	-	-	-	-
Critical Hdwy Stg 2	5.5	-	-	-	-	-
Follow-up Hdwy	3.59	3.363	2.299	-	-	-
Pot Cap-1 Maneuver	263	674	1132	-	-	-
Stage 1	689	-	-	-	-	-
Stage 2	514	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	224	672	1129	-	-	-
Mov Cap-2 Maneuver	224	-	-	-	-	-
Stage 1	588	-	-	-	-	-
Stage 2	513	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.7	2.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1129	-	510	-	-
HCM Lane V/C Ratio	0.115	-	0.403	-	-
HCM Control Delay (s)	8.6	0	16.7	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.4	-	1.9	-	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	207	100	7	13	1
Future Vol, veh/h	2	207	100	7	13	1
Conflicting Peds, #/hr	1	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	7	14	14	8	0
Mvmt Flow	2	225	109	8	14	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	118	0	-	0	343	114
Stage 1	-	-	-	-	114	-
Stage 2	-	-	-	-	229	-
Critical Hdwy	4.1	-	-	-	6.48	6.2
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	2.2	-	-	-	3.572	3.3
Pot Cap-1 Maneuver	1483	-	-	-	641	944
Stage 1	-	-	-	-	896	-
Stage 2	-	-	-	-	795	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1481	-	-	-	638	943
Mov Cap-2 Maneuver	-	-	-	-	638	-
Stage 1	-	-	-	-	893	-
Stage 2	-	-	-	-	794	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	10.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1481	-	-	-	653
HCM Lane V/C Ratio	0.001	-	-	-	0.023
HCM Control Delay (s)	7.4	0	-	-	10.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	171	1	11	80	10	5	1	15	23	2	10
Future Vol, veh/h	5	171	1	11	80	10	5	1	15	23	2	10
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	6	0	18	14	20	20	0	7	9	0	0
Mvmt Flow	5	184	1	12	86	11	5	1	16	25	2	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.3	8.2	7.7	7.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	24%	3%	11%	66%
Vol Thru, %	5%	97%	79%	6%
Vol Right, %	71%	1%	10%	29%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	21	177	101	35
LT Vol	5	5	11	23
Through Vol	1	171	80	2
RT Vol	15	1	10	10
Lane Flow Rate	23	190	109	38
Geometry Grp	1	1	1	1
Degree of Util (X)	0.029	0.216	0.133	0.049
Departure Headway (Hd)	4.571	4.089	4.417	4.706
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	788	866	800	765
Service Time	2.573	2.17	2.509	2.707
HCM Lane V/C Ratio	0.029	0.219	0.136	0.05
HCM Control Delay	7.7	8.3	8.2	7.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.8	0.5	0.2

Intersection	
Intersection Delay, s/veh	7.3
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	17	7	23	37	10	12
Future Vol, veh/h	17	7	23	37	10	12
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles, %	0	0	0	0	10	8
Mvmt Flow	22	9	30	48	13	16
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	7	7.5	7.2
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	45%	0%	38%
Vol Thru, %	0%	71%	62%
Vol Right, %	55%	29%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	22	24	60
LT Vol	10	0	23
Through Vol	0	17	37
RT Vol	12	7	0
Lane Flow Rate	29	31	78
Geometry Grp	1	1	1
Degree of Util (X)	0.032	0.033	0.088
Departure Headway (Hd)	4.022	3.832	4.05
Convergence, Y/N	Yes	Yes	Yes
Cap	885	933	886
Service Time	2.068	1.862	2.068
HCM Lane V/C Ratio	0.033	0.033	0.088
HCM Control Delay	7.2	7	7.5
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.1	0.1	0.3

Intersection

Int Delay, s/veh	1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	16	18	46	320	445	28
Future Vol, veh/h	16	18	46	320	445	28
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, %	-4	-	-	5	-5	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	7	7	3	3	3	0
Mvmt Flow	18	20	51	352	489	31

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	959	505	520	0	-	0
Stage 1	505	-	-	-	-	-
Stage 2	454	-	-	-	-	-
Critical Hdwy	5.67	5.87	4.13	-	-	-
Critical Hdwy Stg 1	4.67	-	-	-	-	-
Critical Hdwy Stg 2	4.67	-	-	-	-	-
Follow-up Hdwy	3.563	3.363	2.227	-	-	-
Pot Cap-1 Maneuver	345	589	1041	-	-	-
Stage 1	667	-	-	-	-	-
Stage 2	696	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	324	589	1041	-	-	-
Mov Cap-2 Maneuver	324	-	-	-	-	-
Stage 1	626	-	-	-	-	-
Stage 2	696	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.3	1.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1041	-	425	-	-
HCM Lane V/C Ratio	0.049	-	0.088	-	-
HCM Control Delay (s)	8.6	0	14.3	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.3	-	-

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	40	146	192	353	414	50
Future Vol, veh/h	40	146	192	353	414	50
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	93	93	93	93	93	93
Heavy Vehicles, %	8	1	2	2	1	4
Mvmt Flow	43	157	206	380	445	54

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1264	472	499	0	-	0
Stage 1	472	-	-	-	-	-
Stage 2	792	-	-	-	-	-
Critical Hdwy	6.48	6.21	4.12	-	-	-
Critical Hdwy Stg 1	5.48	-	-	-	-	-
Critical Hdwy Stg 2	5.48	-	-	-	-	-
Follow-up Hdwy	3.572	3.309	2.218	-	-	-
Pot Cap-1 Maneuver	182	594	1065	-	-	-
Stage 1	615	-	-	-	-	-
Stage 2	436	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	137	594	1065	-	-	-
Mov Cap-2 Maneuver	137	-	-	-	-	-
Stage 1	464	-	-	-	-	-
Stage 2	436	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	28.7	3.2	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1065	-	346	-	-
HCM Lane V/C Ratio	0.194	-	0.578	-	-
HCM Control Delay (s)	9.2	0	28.7	-	-
HCM Lane LOS	A	A	D	-	-
HCM 95th %tile Q(veh)	0.7	-	3.5	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	132	248	21	9	1
Future Vol, veh/h	1	132	248	21	9	1
Conflicting Peds, #/hr	6	0	0	6	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	1	0	5	0	0
Mvmt Flow	1	147	276	23	10	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	305	0	-	0	443	294
Stage 1	-	-	-	-	294	-
Stage 2	-	-	-	-	149	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1267	-	-	-	576	750
Stage 1	-	-	-	-	761	-
Stage 2	-	-	-	-	884	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1258	-	-	-	567	745
Mov Cap-2 Maneuver	-	-	-	-	567	-
Stage 1	-	-	-	-	755	-
Stage 2	-	-	-	-	878	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	11.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1258	-	-	-	581
HCM Lane V/C Ratio	0.001	-	-	-	0.019
HCM Control Delay (s)	7.9	0	-	-	11.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	13	97	1	30	190	28	1	1	10	24	2	10
Future Vol, veh/h	13	97	1	30	190	28	1	1	10	24	2	10
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	2	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	14	104	1	32	204	30	1	1	11	26	2	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8	8.8	7.4	8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	8%	12%	12%	67%
Vol Thru, %	8%	87%	77%	6%
Vol Right, %	83%	1%	11%	28%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	12	111	248	36
LT Vol	1	13	30	24
Through Vol	1	97	190	2
RT Vol	10	1	28	10
Lane Flow Rate	13	119	267	39
Geometry Grp	1	1	1	1
Degree of Util (X)	0.015	0.14	0.299	0.051
Departure Headway (Hd)	4.296	4.208	4.035	4.714
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	838	838	880	764
Service Time	2.299	2.305	2.106	2.714
HCM Lane V/C Ratio	0.016	0.142	0.303	0.051
HCM Control Delay	7.4	8	8.8	8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0	0.5	1.3	0.2

Intersection	
Intersection Delay, s/veh	7.1
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	37	6	12	15	1	24
Future Vol, veh/h	37	6	12	15	1	24
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	0	0	25	27	0	8
Mvmt Flow	44	7	14	18	1	28
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	7.1	7.7	6.6
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	4%	0%	44%
Vol Thru, %	0%	86%	56%
Vol Right, %	96%	14%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	25	43	27
LT Vol	1	0	12
Through Vol	0	37	15
RT Vol	24	6	0
Lane Flow Rate	29	51	32
Geometry Grp	1	1	1
Degree of Util (X)	0.028	0.055	0.04
Departure Headway (Hd)	3.473	3.891	4.504
Convergence, Y/N	Yes	Yes	Yes
Cap	1025	923	798
Service Time	1.515	1.905	2.516
HCM Lane V/C Ratio	0.028	0.055	0.04
HCM Control Delay	6.6	7.1	7.7
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.1	0.2	0.1

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	29	40	18	337	266	13
Future Vol, veh/h	29	40	18	337	266	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, %	-4	-	-	5	-5	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	21	4	3	22
Mvmt Flow	31	43	19	359	283	14

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	687	290	297	0	-	0
Stage 1	290	-	-	-	-	-
Stage 2	397	-	-	-	-	-
Critical Hdwy	5.6	5.8	4.31	-	-	-
Critical Hdwy Stg 1	4.6	-	-	-	-	-
Critical Hdwy Stg 2	4.6	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.389	-	-	-
Pot Cap-1 Maneuver	484	779	1163	-	-	-
Stage 1	815	-	-	-	-	-
Stage 2	747	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	474	779	1163	-	-	-
Mov Cap-2 Maneuver	474	-	-	-	-	-
Stage 1	799	-	-	-	-	-
Stage 2	747	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.7	0.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1163	-	613	-	-
HCM Lane V/C Ratio	0.016	-	0.12	-	-
HCM Control Delay (s)	8.1	0	11.7	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.4	-	-

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	29	159	118	334	308	36
Future Vol, veh/h	29	159	118	334	308	36
Conflicting Peds, #/hr	0	0	2	0	0	2
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, %	10	7	11	3	7	3
Mvmt Flow	33	179	133	375	346	40

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1009	368	388	0	-	0
Stage 1	368	-	-	-	-	-
Stage 2	641	-	-	-	-	-
Critical Hdwy	6.5	6.27	4.21	-	-	-
Critical Hdwy Stg 1	5.5	-	-	-	-	-
Critical Hdwy Stg 2	5.5	-	-	-	-	-
Follow-up Hdwy	3.59	3.363	2.299	-	-	-
Pot Cap-1 Maneuver	257	666	1123	-	-	-
Stage 1	683	-	-	-	-	-
Stage 2	510	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	218	664	1120	-	-	-
Mov Cap-2 Maneuver	218	-	-	-	-	-
Stage 1	579	-	-	-	-	-
Stage 2	509	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17.2	2.3	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1120	-	505	-	-
HCM Lane V/C Ratio	0.118	-	0.418	-	-
HCM Control Delay (s)	8.6	0	17.2	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.4	-	2	-	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	211	102	7	14	1
Future Vol, veh/h	2	211	102	7	14	1
Conflicting Peds, #/hr	1	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	7	14	14	8	0
Mvmt Flow	2	229	111	8	15	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	120	0	-	0	349	116
Stage 1	-	-	-	-	116	-
Stage 2	-	-	-	-	233	-
Critical Hdwy	4.1	-	-	-	6.48	6.2
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	2.2	-	-	-	3.572	3.3
Pot Cap-1 Maneuver	1480	-	-	-	636	942
Stage 1	-	-	-	-	894	-
Stage 2	-	-	-	-	792	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1478	-	-	-	633	941
Mov Cap-2 Maneuver	-	-	-	-	633	-
Stage 1	-	-	-	-	891	-
Stage 2	-	-	-	-	791	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	10.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1478	-	-	-	647
HCM Lane V/C Ratio	0.001	-	-	-	0.025
HCM Control Delay (s)	7.4	0	-	-	10.7
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	171	1	11	80	12	5	1	15	27	2	13
Future Vol, veh/h	6	171	1	11	80	12	5	1	15	27	2	13
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	6	0	18	14	20	20	0	7	9	0	0
Mvmt Flow	6	184	1	12	86	13	5	1	16	29	2	14
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.4	8.2	7.7	8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	24%	3%	11%	64%
Vol Thru, %	5%	96%	78%	5%
Vol Right, %	71%	1%	12%	31%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	21	178	103	42
LT Vol	5	6	11	27
Through Vol	1	171	80	2
RT Vol	15	1	12	13
Lane Flow Rate	23	191	111	45
Geometry Grp	1	1	1	1
Degree of Util (X)	0.029	0.218	0.136	0.059
Departure Headway (Hd)	4.59	4.105	4.421	4.698
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	784	861	799	767
Service Time	2.592	2.193	2.52	2.699
HCM Lane V/C Ratio	0.029	0.222	0.139	0.059
HCM Control Delay	7.7	8.4	8.2	8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.8	0.5	0.2

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	12	8	3	13	14	4
Future Vol, veh/h	12	8	3	13	14	4
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	80	80	80	80	80	80
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	15	10	4	16	18	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	45	21	23	0	-	0
Stage 1	21	-	-	-	-	-
Stage 2	24	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.11	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.209	-	-	-
Pot Cap-1 Maneuver	968	1059	1599	-	-	-
Stage 1	1004	-	-	-	-	-
Stage 2	1001	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	965	1059	1599	-	-	-
Mov Cap-2 Maneuver	965	-	-	-	-	-
Stage 1	1001	-	-	-	-	-
Stage 2	1001	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.7	1.4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1599	-	1001	-	-
HCM Lane V/C Ratio	0.002	-	0.025	-	-
HCM Control Delay (s)	7.3	0	8.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	39	1	1	15	2	4
Future Vol, veh/h	39	1	1	15	2	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	49	1	1	19	3	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	50	0	71	50
Stage 1	-	-	-	-	50	-
Stage 2	-	-	-	-	21	-
Critical Hdwy	-	-	4.11	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	-	-	2.209	-	3.509	3.309
Pot Cap-1 Maneuver	-	-	1563	-	936	1021
Stage 1	-	-	-	-	975	-
Stage 2	-	-	-	-	1004	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1563	-	935	1021
Mov Cap-2 Maneuver	-	-	-	-	935	-
Stage 1	-	-	-	-	975	-
Stage 2	-	-	-	-	1003	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	991	-	-	1563	-
HCM Lane V/C Ratio	0.008	-	-	0.001	-
HCM Control Delay (s)	8.7	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Intersection Delay, s/veh	7.4
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	19	7	36	41	10	19
Future Vol, veh/h	19	7	36	41	10	19
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles, %	0	0	0	0	10	8
Mvmt Flow	25	9	47	53	13	25
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	7.1	7.6	7.2
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	34%	0%	47%
Vol Thru, %	0%	73%	53%
Vol Right, %	66%	27%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	29	26	77
LT Vol	10	0	36
Through Vol	0	19	41
RT Vol	19	7	0
Lane Flow Rate	38	34	100
Geometry Grp	1	1	1
Degree of Util (X)	0.042	0.036	0.113
Departure Headway (Hd)	3.976	3.879	4.084
Convergence, Y/N	Yes	Yes	Yes
Cap	893	919	878
Service Time	2.034	1.917	2.107
HCM Lane V/C Ratio	0.043	0.037	0.114
HCM Control Delay	7.2	7.1	7.6
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.1	0.1	0.4

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	21	22	54	320	445	37
Future Vol, veh/h	21	22	54	320	445	37
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, %	-4	-	-	5	-5	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	7	7	3	3	3	0
Mvmt Flow	23	24	59	352	489	41

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	980	510	530	0	-	0
Stage 1	510	-	-	-	-	-
Stage 2	470	-	-	-	-	-
Critical Hdwy	5.67	5.87	4.13	-	-	-
Critical Hdwy Stg 1	4.67	-	-	-	-	-
Critical Hdwy Stg 2	4.67	-	-	-	-	-
Follow-up Hdwy	3.563	3.363	2.227	-	-	-
Pot Cap-1 Maneuver	337	586	1032	-	-	-
Stage 1	664	-	-	-	-	-
Stage 2	687	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	313	586	1032	-	-	-
Mov Cap-2 Maneuver	313	-	-	-	-	-
Stage 1	617	-	-	-	-	-
Stage 2	687	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.9	1.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1032	-	411	-	-
HCM Lane V/C Ratio	0.058	-	0.115	-	-
HCM Control Delay (s)	8.7	0	14.9	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.4	-	-

Intersection	
Int Delay, s/veh	6.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	40	149	197	361	418	50
Future Vol, veh/h	40	149	197	361	418	50
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	93	93	93	93	93	93
Heavy Vehicles, %	8	1	2	2	1	4
Mvmt Flow	43	160	212	388	449	54

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1288	476	503	0	-	0
Stage 1	476	-	-	-	-	-
Stage 2	812	-	-	-	-	-
Critical Hdwy	6.48	6.21	4.12	-	-	-
Critical Hdwy Stg 1	5.48	-	-	-	-	-
Critical Hdwy Stg 2	5.48	-	-	-	-	-
Follow-up Hdwy	3.572	3.309	2.218	-	-	-
Pot Cap-1 Maneuver	176	591	1061	-	-	-
Stage 1	613	-	-	-	-	-
Stage 2	426	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	131	591	1061	-	-	-
Mov Cap-2 Maneuver	131	-	-	-	-	-
Stage 1	457	-	-	-	-	-
Stage 2	426	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	30.3	3.3	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1061	-	339	-	-
HCM Lane V/C Ratio	0.2	-	0.599	-	-
HCM Control Delay (s)	9.2	0	30.3	-	-
HCM Lane LOS	A	A	D	-	-
HCM 95th %tile Q(veh)	0.7	-	3.7	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	134	252	22	10	1
Future Vol, veh/h	1	134	252	22	10	1
Conflicting Peds, #/hr	6	0	0	6	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	1	0	5	0	0
Mvmt Flow	1	149	280	24	11	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	310	0	-	0	449	298
Stage 1	-	-	-	-	298	-
Stage 2	-	-	-	-	151	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1262	-	-	-	571	746
Stage 1	-	-	-	-	758	-
Stage 2	-	-	-	-	882	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1253	-	-	-	562	741
Mov Cap-2 Maneuver	-	-	-	-	562	-
Stage 1	-	-	-	-	752	-
Stage 2	-	-	-	-	876	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	11.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1253	-	-	-	575
HCM Lane V/C Ratio	0.001	-	-	-	0.021
HCM Control Delay (s)	7.9	0	-	-	11.4
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Intersection Delay, s/veh	8.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	16	97	1	30	190	32	1	1	10	26	2	12
Future Vol, veh/h	16	97	1	30	190	32	1	1	10	26	2	12
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	2	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	17	104	1	32	204	34	1	1	11	28	2	13
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.1	8.9	7.4	8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	8%	14%	12%	65%
Vol Thru, %	8%	85%	75%	5%
Vol Right, %	83%	1%	13%	30%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	12	114	252	40
LT Vol	1	16	30	26
Through Vol	1	97	190	2
RT Vol	10	1	32	12
Lane Flow Rate	13	123	271	43
Geometry Grp	1	1	1	1
Degree of Util (X)	0.015	0.144	0.304	0.056
Departure Headway (Hd)	4.318	4.224	4.036	4.713
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	834	835	881	764
Service Time	2.32	2.324	2.11	2.713
HCM Lane V/C Ratio	0.016	0.147	0.308	0.056
HCM Control Delay	7.4	8.1	8.9	8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0	0.5	1.3	0.2

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	7	5	8	22	30	13
Future Vol, veh/h	7	5	8	22	30	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	80	80	80	80	80	80
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	9	6	10	28	38	16

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	94	46	54	0	-	0
Stage 1	46	-	-	-	-	-
Stage 2	48	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.11	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.209	-	-	-
Pot Cap-1 Maneuver	908	1026	1558	-	-	-
Stage 1	979	-	-	-	-	-
Stage 2	977	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	902	1026	1558	-	-	-
Mov Cap-2 Maneuver	902	-	-	-	-	-
Stage 1	972	-	-	-	-	-
Stage 2	977	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.9	2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1558	-	950	-	-
HCM Lane V/C Ratio	0.006	-	0.016	-	-
HCM Control Delay (s)	7.3	0	8.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	24	3	4	47	2	2
Future Vol, veh/h	24	3	4	47	2	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	30	4	5	59	3	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	34	0	101	32
Stage 1	-	-	-	-	32	-
Stage 2	-	-	-	-	69	-
Critical Hdwy	-	-	4.11	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	-	-	2.209	-	3.509	3.309
Pot Cap-1 Maneuver	-	-	1584	-	900	1045
Stage 1	-	-	-	-	993	-
Stage 2	-	-	-	-	956	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1584	-	897	1045
Mov Cap-2 Maneuver	-	-	-	-	897	-
Stage 1	-	-	-	-	993	-
Stage 2	-	-	-	-	953	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	8.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	965	-	-	1584	-
HCM Lane V/C Ratio	0.005	-	-	0.003	-
HCM Control Delay (s)	8.8	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Intersection Delay, s/veh	7.2
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	44	6	13	18	1	27
Future Vol, veh/h	44	6	13	18	1	27
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	0	0	25	27	0	8
Mvmt Flow	52	7	15	21	1	32
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	7.2	7.7	6.7
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	4%	0%	42%
Vol Thru, %	0%	88%	58%
Vol Right, %	96%	12%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	28	50	31
LT Vol	1	0	13
Through Vol	0	44	18
RT Vol	27	6	0
Lane Flow Rate	33	59	36
Geometry Grp	1	1	1
Degree of Util (X)	0.032	0.064	0.046
Departure Headway (Hd)	3.491	3.912	4.511
Convergence, Y/N	Yes	Yes	Yes
Cap	1018	917	796
Service Time	1.54	1.93	2.527
HCM Lane V/C Ratio	0.032	0.064	0.045
HCM Control Delay	6.7	7.2	7.7
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.1	0.2	0.1

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	34	45	20	337	266	15
Future Vol, veh/h	34	45	20	337	266	15
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, %	-4	-	-	5	-5	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	21	4	3	22
Mvmt Flow	36	48	21	359	283	16

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	692	291	299	0	-	0
Stage 1	291	-	-	-	-	-
Stage 2	401	-	-	-	-	-
Critical Hdwy	5.6	5.8	4.31	-	-	-
Critical Hdwy Stg 1	4.6	-	-	-	-	-
Critical Hdwy Stg 2	4.6	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.389	-	-	-
Pot Cap-1 Maneuver	482	778	1161	-	-	-
Stage 1	814	-	-	-	-	-
Stage 2	744	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	471	778	1161	-	-	-
Mov Cap-2 Maneuver	471	-	-	-	-	-
Stage 1	795	-	-	-	-	-
Stage 2	744	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.9	0.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1161	-	608	-	-
HCM Lane V/C Ratio	0.018	-	0.138	-	-
HCM Control Delay (s)	8.2	0	11.9	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.5	-	-

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	29	162	119	336	313	36
Future Vol, veh/h	29	162	119	336	313	36
Conflicting Peds, #/hr	0	0	2	0	0	2
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, %	10	7	11	3	7	3
Mvmt Flow	33	182	134	378	352	40

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1020	374	394	0	-	0
Stage 1	374	-	-	-	-	-
Stage 2	646	-	-	-	-	-
Critical Hdwy	6.5	6.27	4.21	-	-	-
Critical Hdwy Stg 1	5.5	-	-	-	-	-
Critical Hdwy Stg 2	5.5	-	-	-	-	-
Follow-up Hdwy	3.59	3.363	2.299	-	-	-
Pot Cap-1 Maneuver	253	661	1117	-	-	-
Stage 1	678	-	-	-	-	-
Stage 2	507	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	214	659	1114	-	-	-
Mov Cap-2 Maneuver	214	-	-	-	-	-
Stage 1	574	-	-	-	-	-
Stage 2	506	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17.5	2.3	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1114	-	501	-	-
HCM Lane V/C Ratio	0.12	-	0.428	-	-
HCM Control Delay (s)	8.7	0	17.5	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.4	-	2.1	-	-

Intersection						
Int Delay, s/veh	0.6					

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	213	103	7	15	1
Future Vol, veh/h	2	213	103	7	15	1
Conflicting Peds, #/hr	1	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	7	14	14	8	0
Mvmt Flow	2	232	112	8	16	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	121	0	-	0	353	117
Stage 1	-	-	-	-	117	-
Stage 2	-	-	-	-	236	-
Critical Hdwy	4.1	-	-	-	6.48	6.2
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	2.2	-	-	-	3.572	3.3
Pot Cap-1 Maneuver	1479	-	-	-	633	941
Stage 1	-	-	-	-	893	-
Stage 2	-	-	-	-	789	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1477	-	-	-	630	940
Mov Cap-2 Maneuver	-	-	-	-	630	-
Stage 1	-	-	-	-	890	-
Stage 2	-	-	-	-	788	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	10.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1477	-	-	-	643
HCM Lane V/C Ratio	0.001	-	-	-	0.027
HCM Control Delay (s)	7.4	0	-	-	10.8
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Intersection Delay, s/veh	8.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	171	1	11	80	13	5	1	15	29	2	15
Future Vol, veh/h	6	171	1	11	80	13	5	1	15	29	2	15
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	6	0	18	14	20	20	0	7	9	0	0
Mvmt Flow	6	184	1	12	86	14	5	1	16	31	2	16
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.4	8.3	7.7	8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	24%	3%	11%	63%
Vol Thru, %	5%	96%	77%	4%
Vol Right, %	71%	1%	12%	33%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	21	178	104	46
LT Vol	5	6	11	29
Through Vol	1	171	80	2
RT Vol	15	1	13	15
Lane Flow Rate	23	191	112	49
Geometry Grp	1	1	1	1
Degree of Util (X)	0.029	0.219	0.141	0.064
Departure Headway (Hd)	4.599	4.113	4.526	4.689
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	782	857	797	767
Service Time	2.608	2.208	2.526	2.698
HCM Lane V/C Ratio	0.029	0.223	0.141	0.064
HCM Control Delay	7.7	8.4	8.3	8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.8	0.5	0.2

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	15	13	4	13	14	5
Future Vol, veh/h	15	13	4	13	14	5
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	80	80	80	80	80	80
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	19	16	5	16	18	6

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	47	21	24	0	-	0
Stage 1	21	-	-	-	-	-
Stage 2	26	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.11	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.209	-	-	-
Pot Cap-1 Maneuver	965	1059	1597	-	-	-
Stage 1	1004	-	-	-	-	-
Stage 2	999	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	962	1059	1597	-	-	-
Mov Cap-2 Maneuver	962	-	-	-	-	-
Stage 1	1001	-	-	-	-	-
Stage 2	999	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.7	1.7	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1597	-	1005	-	-
HCM Lane V/C Ratio	0.003	-	0.035	-	-
HCM Control Delay (s)	7.3	0	8.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	2.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	39	2	4	15	4	11
Future Vol, veh/h	39	2	4	15	4	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	49	3	5	19	5	14

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	52	0	80	51
Stage 1	-	-	-	-	51	-
Stage 2	-	-	-	-	29	-
Critical Hdwy	-	-	4.11	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	-	-	2.209	-	3.509	3.309
Pot Cap-1 Maneuver	-	-	1560	-	925	1020
Stage 1	-	-	-	-	974	-
Stage 2	-	-	-	-	996	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1560	-	922	1020
Mov Cap-2 Maneuver	-	-	-	-	922	-
Stage 1	-	-	-	-	974	-
Stage 2	-	-	-	-	993	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.5	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	992	-	-	1560	-
HCM Lane V/C Ratio	0.019	-	-	0.003	-
HCM Control Delay (s)	8.7	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Intersection Delay, s/veh	7.5
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	24	7	39	48	10	20
Future Vol, veh/h	24	7	39	48	10	20
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles, %	0	0	0	0	10	8
Mvmt Flow	31	9	51	62	13	26
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	7.1	7.7	7.3
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	33%	0%	45%
Vol Thru, %	0%	77%	55%
Vol Right, %	67%	23%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	30	31	87
LT Vol	10	0	39
Through Vol	0	24	48
RT Vol	20	7	0
Lane Flow Rate	39	40	113
Geometry Grp	1	1	1
Degree of Util (X)	0.043	0.044	0.128
Departure Headway (Hd)	3.999	3.918	4.089
Convergence, Y/N	Yes	Yes	Yes
Cap	886	910	877
Service Time	2.068	1.958	2.112
HCM Lane V/C Ratio	0.044	0.044	0.129
HCM Control Delay	7.3	7.1	7.7
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.1	0.1	0.4

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	24	25	59	320	445	42
Future Vol, veh/h	24	25	59	320	445	42
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, %	-4	-	-	5	-5	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	7	7	3	3	3	0
Mvmt Flow	26	27	65	352	489	46

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	994	512	535	0	-	0
Stage 1	512	-	-	-	-	-
Stage 2	482	-	-	-	-	-
Critical Hdwy	5.67	5.87	4.13	-	-	-
Critical Hdwy Stg 1	4.67	-	-	-	-	-
Critical Hdwy Stg 2	4.67	-	-	-	-	-
Follow-up Hdwy	3.563	3.363	2.227	-	-	-
Pot Cap-1 Maneuver	332	584	1028	-	-	-
Stage 1	663	-	-	-	-	-
Stage 2	680	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	306	584	1028	-	-	-
Mov Cap-2 Maneuver	306	-	-	-	-	-
Stage 1	611	-	-	-	-	-
Stage 2	680	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.3	1.4	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1028	-	404	-	-
HCM Lane V/C Ratio	0.063	-	0.133	-	-
HCM Control Delay (s)	8.7	0	15.3	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.2	-	0.5	-	-

Intersection	
Int Delay, s/veh	6.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	40	151	200	366	421	50
Future Vol, veh/h	40	151	200	366	421	50
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	93	93	93	93	93	93
Heavy Vehicles, %	8	1	2	2	1	4
Mvmt Flow	43	162	215	394	453	54

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1304	480	507	0	-	0
Stage 1	480	-	-	-	-	-
Stage 2	824	-	-	-	-	-
Critical Hdwy	6.48	6.21	4.12	-	-	-
Critical Hdwy Stg 1	5.48	-	-	-	-	-
Critical Hdwy Stg 2	5.48	-	-	-	-	-
Follow-up Hdwy	3.572	3.309	2.218	-	-	-
Pot Cap-1 Maneuver	172	588	1058	-	-	-
Stage 1	610	-	-	-	-	-
Stage 2	421	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	127	588	1058	-	-	-
Mov Cap-2 Maneuver	127	-	-	-	-	-
Stage 1	451	-	-	-	-	-
Stage 2	421	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	31.6	3.3	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1058	-	334	-	-
HCM Lane V/C Ratio	0.203	-	0.615	-	-
HCM Control Delay (s)	9.3	0	31.6	-	-
HCM Lane LOS	A	A	D	-	-
HCM 95th %tile Q(veh)	0.8	-	3.9	-	-

Intersection						
Int Delay, s/veh	0.4					

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	135	254	23	11	1
Future Vol, veh/h	1	135	254	23	11	1
Conflicting Peds, #/hr	6	0	0	6	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	1	0	5	0	0
Mvmt Flow	1	150	282	26	12	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	314	0	-	0	453	301
Stage 1	-	-	-	-	301	-
Stage 2	-	-	-	-	152	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1258	-	-	-	568	743
Stage 1	-	-	-	-	755	-
Stage 2	-	-	-	-	881	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1249	-	-	-	559	738
Mov Cap-2 Maneuver	-	-	-	-	559	-
Stage 1	-	-	-	-	749	-
Stage 2	-	-	-	-	875	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	11.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1249	-	-	-	571
HCM Lane V/C Ratio	0.001	-	-	-	0.023
HCM Control Delay (s)	7.9	0	-	-	11.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	97	1	30	190	34	1	1	10	27	2	13
Future Vol, veh/h	18	97	1	30	190	34	1	1	10	27	2	13
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	2	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	19	104	1	32	204	37	1	1	11	29	2	14
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.1	8.9	7.4	8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	8%	16%	12%	64%
Vol Thru, %	8%	84%	75%	5%
Vol Right, %	83%	1%	13%	31%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	12	116	254	42
LT Vol	1	18	30	27
Through Vol	1	97	190	2
RT Vol	10	1	34	13
Lane Flow Rate	13	125	273	45
Geometry Grp	1	1	1	1
Degree of Util (X)	0.016	0.15	0.306	0.059
Departure Headway (Hd)	4.331	4.337	4.038	4.715
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	830	832	879	763
Service Time	2.338	2.337	2.119	2.722
HCM Lane V/C Ratio	0.016	0.15	0.311	0.059
HCM Control Delay	7.4	8.1	8.9	8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0	0.5	1.3	0.2

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	8	13	22	30	16
Future Vol, veh/h	8	8	13	22	30	16
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	80	80	80	80	80	80
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	10	10	16	28	38	20

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	108	48	58	0	-	0
Stage 1	48	-	-	-	-	-
Stage 2	60	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.11	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.209	-	-	-
Pot Cap-1 Maneuver	892	1024	1553	-	-	-
Stage 1	977	-	-	-	-	-
Stage 2	965	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	883	1024	1553	-	-	-
Mov Cap-2 Maneuver	883	-	-	-	-	-
Stage 1	967	-	-	-	-	-
Stage 2	965	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.9	2.7	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1553	-	948	-	-
HCM Lane V/C Ratio	0.01	-	0.021	-	-
HCM Control Delay (s)	7.3	0	8.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	24	5	11	47	3	7
Future Vol, veh/h	24	5	11	47	3	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	30	6	14	59	4	9

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	36	0	120	33
Stage 1	-	-	-	-	33	-
Stage 2	-	-	-	-	87	-
Critical Hdwy	-	-	4.11	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	-	-	2.209	-	3.509	3.309
Pot Cap-1 Maneuver	-	-	1581	-	878	1043
Stage 1	-	-	-	-	992	-
Stage 2	-	-	-	-	939	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1581	-	870	1043
Mov Cap-2 Maneuver	-	-	-	-	870	-
Stage 1	-	-	-	-	992	-
Stage 2	-	-	-	-	931	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.4	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	984	-	-	1581	-
HCM Lane V/C Ratio	0.013	-	-	0.009	-
HCM Control Delay (s)	8.7	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Appendix E: Archeological Study

Additional Phase IB Archaeological Survey for three additional project areas for the proposed Village View subdivision
Township of Warwick, Orange County, New York

June 2019

Prepared for:
Kirk Rother, P.E., Consulting Engineers, P.L.L.C., Warwick, New York

Alfred G. Cammisa, RPA
with Alexander Padilla (CAD)

980

MANAGEMENT SUMMARY

PR#
Not known

Involved agencies:
Tow of Warwick

Phase:
Phase IB

Location:
Town of Warwick
Orange County

Survey Area:
Length: about 3500 linear feet (1067 meters) 3 spurs in 3 directions
Width: about 50 feet (15 meters) & up too 100 ft. in 2 small locations
Acres Surveyed: na (linear ft.)

USGS:
Warwick, NY

Survey overview:
ST no. & interval: 70 ST's at 50ft (15m) intervals.
Size of freshly plowed area: na
Surface survey transect interval: na

Results:
No prehistoric or historic remains

Results of Architectural Survey:
No. Of buildings/structures/cemeteries in project area: none
No. Of buildings/structures/cemeteries adjacent to project area: none
No. Of previously determined NR listed or eligible buildings/structures/cemeteries/districts: none
No. Of identified eligible buildings/structures/cemeteries/districts: none

Authors:
Alfred G. Cammisa, M.A.
Alexander Padilla, B.A. (CAD)

Date of Report:
Report completed June, 2019

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF PHOTOS

INTRODUCTION

On May 22, 2019, TRACKER Archaeology, Inc. conducted an additional Phase IB archaeological testing for the proposed Village View subdivision, Township of Warwick Orange County, New York. The purpose of the Phase IB survey was to determine the presence or absence of prehistoric or historic sites on the extended project area. Previous Phase I & Phase II field testing was conducted in 2005 and 2007 on the same property but did not included the current project corridors. The current investigations consist of extended Phase IB field work for a proposes road and drainage areas (see Cammisa 2005 & 2007).

The current field testing was conducted at 3 additional project corridors for the proposed Village View subdivision. The proposed project corridors consist of a proposed road and 2 drainage corridors & 2 stormwater ponds for an additional 3500 feet corridor.

The work was performed by TRACKER Archaeology, Inc. of Monroe, New York. Field work was conducted by P.I., Alfred G. Cammisa, M.A. and field technician Alfred T. Cammisa. Report preparation by Alfred G. Cammisa, M.A. with Alexander Padilla, B.A. (CAD)

The work was performed for Kirk Rother, P.E., Consulting Engineers, P.L.L.C., Warwick, New York.

FIELD METHODS

Walkover

Any exposed ground surfaces were walked over at about 3 to 5 meter intervals to observe for artifacts. Covered ground terrain was reconnoitered at approximately 15 meter intervals to observe for any above ground features, such as berms, depressions, or rock configurations which might be evidence for historic or prehistoric features. Photographs were taken of the property.

Shovel Testing

Shovel tests (ST's) were excavated at approximately 15 meter intervals across the project areas. Each ST measured about 30 to 40 cm. in diameter and was dug into the underlying subsoil (B horizon) 10 to 20 cm. when possible. All soils were screened through 1/4 inch wire mesh and observed for artifacts. Shovel test pits were flagged in the field. Soil stratigraphy was recorded according to texture and color. Soil color was matched against the Munsell color chart for soils. Notes were transcribed in a notebook.

FIELD RESULTS

Field testing of the project area included the excavation of 70 ST's. No prehistoric artifacts or features were encountered. No historic artifacts or features were encountered. Vegetation consisted of mixed hardwood forest.

Stratigraphy

General stratigraphy across the project corridor consisted of:

-A/O horizon - about 3 to 4 cm. thick of root mat, leaf litter, and humus.

-A horizon - about 21 to 24 cm. or more thick of 10YR3/3 dark brown, gravelly silty loam to 10YR4/2 dark grey brown silty loam.

-B horizon - about 10 cm. or more dug into of 10YR5/4, yellow brown gravelly silty loam to silty loam.

CONCLUSIONS AND RECOMMENDATIONS

During the course of the Phase IB survey,70 ST's were excavated across the project area. No prehistoric artifacts or features were encountered. No historic artifacts or features were encountered. No further work is recommended.

BIBLIOGRAPHY

Cammisa, Alfred G. with Alexander Padilla (CAD)
2005 *Phase I Archaeological Investigation for the proposed Village View subdivision Village of Warwick, Town of Warwick Orange County, New York.* TRACKER Archaeology #357.

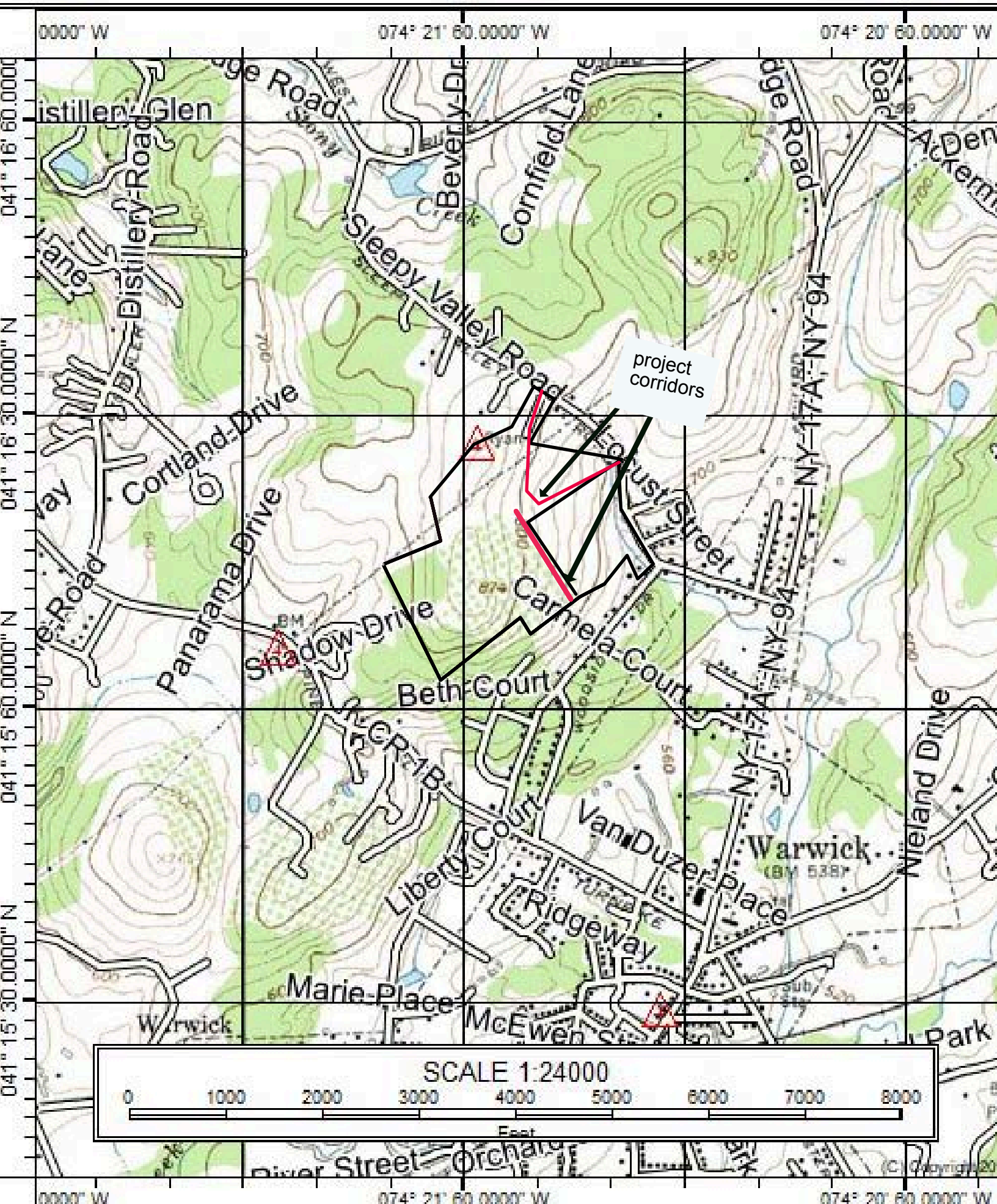
Cammisa, Alfred G. with Thomas Amorosi, PhD., Felicia Cammisa, Joseph Diamond, PhD., Alexander Padilla (CAD)
2007 *Phase II Archaeological Intensive Testing at the Feature 5 Site for the proposed Village View subdivision, Village of Warwick, Town of Warwick, Orange County, New York*. Tracker Archaeology #510.

United States Geologic Survey
1969 *Warwick, New York* quadrangles, 7.5 minute series.

APPENDIX 1

Figure 1

Warwick, NY USGS



PROPOSED TOWN ROAD

PROPOSED DRAINAGE EASEMENT

PROPOSED STORMWATER POND

TOWN OF WARWICK
VILLAGE OF WARWICK

VILLAGE VIEW
VILLAGE PARCEL
CLUSTER
SUBDIVISION

PROPOSED VILLAGE ROAD

PROPOSED DRAINAGE EASEMENT

VILLAGE OF WARWICK

PROPOSED STORMWATER POND

PROPOSED VILLAGE ROAD

SLEEPY HOLLOW ROAD

VALLEY VIEW

LOCUST ST

FIGURE 2: LOCATION OF SHOVEL TESTS

PHOTO ANGLE

NEGATIVE SHOVEL TEST

PROJECT BOUNDARY(A.P.E.)

SCALE: 1 INCH = 50 FEET

100' 75' 50' 25' 0 50' 100'

PROJECT NAME: VILLAGE VIEW

TRACKER
Archaeology Services, Inc.
Tracking the Footsteps of the Ancestors


Photo 1
Looking along proposed road
from Sleepy Valley Road


Photo 2
Looking from near ST 15

Photo 3

Looking from near stream toward proposed stormwater pond


Photo 4
Looking from near ST 56

APPENDIX 2

SHOVEL TESTS

STP	LV	DEPTH(CM)	TEXTURE	COLOR	HOR	COMMENT
1	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-27	GrSiLo	10YR3/3	A	NCM
	3	27-gravel & asphalt				
2	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-25	GrSiLo, gravel& asphalt	10YR3/3	A	
	3	25-30	GrSiLo	10YR5/4	B	NCM
3	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-25	GrSiLo, gravel& asphalt	10YR3/3	A	
	3	25-35	GrSiLo	10YR5/4	B	NCM
4	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-26	GrSiLo, gravel& asphalt	10YR3/3	A	
	3	26-36	GrSiLo	10YR5/4	B	NCM
5	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-27	GrSiLo	10YR3/3	A	NCM
	3	27-37	GrSiLo	10YR5/4	B	NCM
6	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-28	GrSiLo	10YR3/3	A	
	3	28-38	GrSiLo	10YR5/4	B	NCM
7	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-28	GrSiLo	10YR3/3	A	
	3	28-3	GrSiLo	10YR5/4	B	NCM
8	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-27	GrSiLo	10YR3/3	A	NCM
	3	27-37	GrSiLo	10YR5/4	B	NCM
9	2	0-5	GrSiLo	10YR4/3	A	
	3	5-25	GrSiLo	10YR5/4	B	NCM
10	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-26	GrSiLo	10YR3/3	A	NCM
	3	26-36	GrSiLo	10YR5/4	B	NCM
11	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-25	GrSiLo	10YR3/3	A	NCM
	3	25-35	GrSiLo	10YR5/4	B	NCM
12	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-24	GrSiLo	10YR3/3	A	NCM
	3	24-37	GrSiLo	10YR5/4	B	NCM
13	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-25	GrSiLo	10YR3/3	A	NCM
	3	25-35	GrSiLo	10YR5/4	B	NCM

14	1	0-3	rootmat,leaves,humus			A/O	NCM
	2	3-27	GrSiLo	mottled	10YR4/3-5/4	A	NCM
	3	27-37	GrSiLo		10YR5/4	B	NCM
15	1	0-4	rootmat,leaves,humus			A/O	NCM
	2	4-23	GrSiLo		10YR3/3	A	NCM
	3	23-33	GrSiLo		10YR5/4	B	NCM
16	1	0-3	rootmat,leaves,humus			A/O	NCM
	2	3-24	GrSiLo		10YR3/3	A	NCM
	3	24-37	GrSiLo		10YR5/4	B	NCM
17	1	0-4	rootmat,leaves,humus			A/O	NCM
	2	4-22	GrSiLo		10YR3/3	A	NCM
	3	22-33	GrSiLo		10YR5/4	B	NCM
18	1	0-5	rootmat,leaves,humus			A/O	NCM
	2	5-24	GrSiLo		10YR3/3	A	NCM
	3	24-35	GrSiLo		10YR5/4	B	NCM
19	1	0-3	rootmat,leaves,humus			A/O	NCM
	2	3-24	GrSiLo		10YR3/3	A	NCM
	3	24-37	GrSiLo		10YR5/4	B	NCM
20	1	0-3	rootmat,leaves,humus			A/O	NCM
	2	3-24	GrSiLo		10YR3/3	A	NCM
	3	24-37	GrSiLo		10YR5/4	B	NCM
21	1	0-3	rootmat,leaves,humus			A/O	NCM
	2	3-24	GrSiLo		10YR3/3	A	NCM
	3	24-37	GrSiLo		10YR5/4	B	NCM
22	1	0-7	rootmat,leaves,humus			A/O	NCM
	2	7-17	GrSiLo		10YR3/3	A	NCM
	3	17-28	GrSiLo		10YR5/4	B	NCM
23	1	0-3	rootmat,leaves,humus			A/O	NCM
	2	3-20	GrSiLo		10YR3/3	A	NCM
	3	20-30	GrSiLo		10YR5/4	B	NCM
24	1	0-3	rootmat,leaves,humus			A/O	NCM
	2	3-24	GrSiLo		10YR3/3	A	NCM
	3	24-37	GrSiLo		10YR5/4	B	NCM
25	1	0-3	rootmat,leaves,humus			A/O	NCM
	2	3-24	GrSiLo		10YR3/3	A	NCM
	3	24-37	GrSiLo		10YR5/4	B	NCM
26	1	0-3	rootmat,leaves,humus			A/O	NCM
	2	3-24	GrSiLo		10YR3/3	A	NCM
	3	24-37	GrSiLo		10YR5/4	B	NCM

27	1	0-7	rootmat,leaves,humus		A/O	NCM
	2	7-15	GrSiLo	10YR3/3	A	NCM
	3	15-26	GrSiLo	10YR5/4	B	NCM
28	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-22	SiLo	10YR3/3	A	NCM
	3	22-32	SiLo	10YR5/4	B	NCM

Swales (natural drainage/water seep):

29	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-24	SiLo	10YR4/2	A	NCM
	3	24-37	SiLo	10YR5/4	B	NCM
30	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-24	SiLo	10YR4/2	A	NCM
	3	24-37	SiLo	10YR5/4	B	NCM
31	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-25	SiLo	10YR4/2	A	NCM
	3	25-35	SiLo	10YR5/4	B	NCM
32	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-25	SiLo	10YR4/2	A	NCM
	3	25-35	SiLo	10YR5/4	B	NCM
33	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-24	SiLo	10YR4/2	A	NCM
	3	24-34	SiLo	10YR5/4	B	NCM
34	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-23	SiLo	10YR4/2	A	NCM
	3	23-33	SiLo	10YR5/4	B	NCM
35	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-26	SiLo	10YR4/2	A	NCM
	3	26-36	SiLo	10YR5/4	B	NCM
36	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-26	SiLo	10YR4/2	A	NCM
	3	26-36	SiLo	10YR5/4	B	NCM
37	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-24	SiLo	10YR4/2	A	NCM
	3	24-37	SiLo	10YR5/4	B	NCM
38	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-2	SiLo	10YR4/2	A	NCM
	3	25-57	SiLo	10YR5/4	B	NCM
39	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-26	SiLo	10YR4/2	A	NCM
	3	26-36	SiLo	10YR5/4	B	NCM

40	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-26	SiLo	10YR4/2	A	NCM
	3	26-36	SiLo	10YR5/4	B	NCM
41	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-26	SiLo	10YR4/2	A	NCM
	3	26-36	SiLo	10YR5/4	B	NCM
42	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-26	SiLo	10YR4/2	A	NCM
	3	26-36	SiLo	10YR5/4	B	NCM
43	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-27	SiLo	10YR4/2	A	NCM
	3	26-37	SiLo	10YR5/4	B	NCM
44	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-27	SiLo	10YR4/2	A	NCM
	3	27-37	SiLo	10YR5/4	B	NCM
45	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-23	SiLo	10YR4/2	A	NCM
	3	23-33	SiLo	10YR5/4	B	NCM
46	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-24	SiLo	10YR4/2	A	NCM
	3	24-34	SiLo	10YR5/4	B	NCM
47	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-24	SiLo	10YR4/2	A	NCM
	3	24-34	SiLo	10YR5/4	B	NCM
48	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-24	SiLo	10YR4/2	A	NCM
	3	24-34	SiLo	10YR5/4	B	NCM
49	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-25	SiLo	10YR4/2	A	NCM
	3	25-35	SiLo	10YR5/4	B	NCM
50	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-26	SiLo	10YR4/2	A	NCM
	3	26-36	SiLo	10YR5/4	B	NCM
51	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-25	SiLo	10YR4/2	A	NCM
	3	25-35	SiLo	10YR5/4	B	NCM
52	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-26	SiLo	10YR4/2	A	NCM
	3	26-36	SiLo	10YR5/4	B	NCM

53	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-27	SiLo	10YR4/2	A	NCM
	3	27-37	SiLo	10YR5/4	B	NCM
54	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-25	SiLo	10YR4/2	A	NCM
	3	25-35	SiLo	10YR5/4	B	NCM
55	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-25	SiLo	10YR4/2	A	NCM
	3	25-35	SiLo	10YR5/4	B	NCM
56	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-25	SiLo	10YR4/2	A	NCM
	3	25-35	SiLo	10YR5/4	B	NCM
57	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-26	SiLo	10YR4/2	A	NCM
	3	26-36	SiLo	10YR5/4	B	NCM
58	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-26	SiLo	10YR4/2	A	NCM
	3	26-36	SiLo	10YR5/4	B	NCM
59	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-24	SiLo	10YR4/2	A	NCM
	3	24-34	SiLo	10YR5/4	B	NCM
60	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-24	SiLo	10YR4/2	A	NCM
	3	24-34	SiLo	10YR5/4	B	NCM
61	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-25	SiLo	10YR4/2	A	NCM
	3	32-35	SiLo	10YR5/4	B	NCM
62	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-26	SiLo	10YR4/2	A	NCM
	3	26-36	SiLo	10YR5/4	B	NCM
63	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-26	SiLo	10YR4/2	A	NCM
	3	26-36	SiLo	10YR5/4	B	NCM
64	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-27	SiLo	10YR4/2	A	NCM
	3	37-37	SiLo	10YR5/4	B	NCM
65	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-26	SiLo	10YR4/2	A	NCM
	3	26-36	SiLo	10YR5/4	B	NCM

66	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-26	SiLo	10YR4/2	A	NCM
	3	26-36	SiLo	10YR5/4	B	NCM
67	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-27	SiLo	10YR4/2	A	NCM
	3	27-37	SiLo	10YR5/4	B	NCM
68	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-26	SiLo	10YR4/2	A	NCM
	3	26-36	SiLo	10YR5/4	B	NCM
69	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-26	SiLo	10YR4/2	A	NCM
	3	26-36	SiLo	10YR5/4	B	NCM
70	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-26	SiLo	10YR4/2	A	NCM
	3	26-36	SiLo	10YR5/4	B	NCM

Appendix F: Stormwater Pollution Protection Plan

The Stormwater Pollution Protection Plan is a separate file called SEIS Village View SWPPP