APPENDIX A - APPENDIX L (VOLUME I)

EAGLE BAY MIXED USE DEVELOPMENT
TOWN OF STONY POINT
ROCKLAND COUNTY, NY

Project Tax ID: 15.04-6-3; 15.04-6-4; 15.04-6-6

Lead Agency: Stony Point Planning Board
74 East Main Street,
Stony Point NY - 10980

AN&Z

DECEMBER 11, 2019

Deadline to receive written comments on the DEIS is February 14, 2020.

APPENDIX

Appendix A.I: Adopted DEIS Scope

FINAL SCOPE

Identifying the Potentially Significant Adverse Environmental Impacts, Mitigation Measures and Alternatives Pursuant to State Environmental Quality Review Act ("SEQRA") 6 NYCRR 617.8.

Name of Proposed Action

Eagle Bay Site Plan and Conditional Use Permit

Location	Town of Stony Point, Rockland County, NY
Existing Zoning	Planned Waterfront District (PW)
Tax Lots	15.04-6-3 15.04-6-4 15.04-6-6
SEQRA Classification	Type 1
Draft Scope Submitted	May 24, 2018
Draft Scope Officially Received:	June 28, 2018
Public Scoping Hearing	July 31, 2018 RHO Building 5 Clubhouse Lane Stony Point, NY 10980

Deadline for Submission of Comments: August 8,2018

Adoption of Final Scope: September 27, 2018

Lead Agency and Contact Person:
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A. INTRODUCTION

A Draft Environmental Impact Statement (DEIS) will be prepared in accordance with the requirements of 6 NYCRR Part 617.9, to assess the potentially significant adverse environmental impacts of a waterfront mixed-use development including residential dwelling units in multi-unit structures, non-residential commercial use, a marina and public esplanade along the Hudson River. The proposed development site is located on Hudson Drive approximately 600 feet north of the intersection with Tomkins Avenue in the Town of Stony Point, Rockland County, New York. Consistent with 6 NYCRR 617.8, the primary goals of this scope are to focus the EIS on potentially significant adverse impacts and to eliminate consideration of those impacts that are irrelevant and/or insignificant.

The Project Sponsor declared his intent to prepare a DEIS upon submission of his application for site plan and conditional use permit applications and therefore pursuant to 6 NYCRR 617.6(a)(4) no Environmental Assessment Form (EAF) will be required. Additionally, pursuant to 6 NYCRR 617.8 the Project Sponsor initiated public scoping with the submission of a Draft Scoping Document on June 28, 2018.

The Project Sponsor initiated public scoping by submitting the scope with its application on May 24, 2018, however, this date was past the submission deadline to be considered at the May 24, 2018 Planning Board meeting. Therefore, the draft scope is considered to be officially received by the Planning Board on June 28, 2018 (the next meeting of the Planning Board following submission).

The Planning Board announced its intent to declare lead agency status on June 28, 2018 and preliminarily classified the action as Type 1 under SEQR (over 62 units to be connected to existing public water and sewer on lands substantially contiguous to publicly owned or operated parkland). The SEQR timeframes require that a final scope be adopted by August 27, 2018. Barring objection by involved agencies, the Planning Board will assume lead agency status on July 31, 2018. A positive declaration and public notice of this meeting will be published in newspapers of record and the Environmental News Bulletin no later than July 17, 2018.

The Planning Board scheduled a public scoping session on July 31, 2018 at 7:00 PM. Comments on the draft scope were received until August 8, 2018.

Potentially significant adverse environmental impacts of the project identified by the Planning Board at the time of this Draft Scope include, but are not limited to, the following.

1. The proposed construction is located in a FEMA designated 100-year flood zone;

2. The proposed action is proposed adjacent to State and Federal Jurisdictional wetlands.

3. The proposed construction is located in an area with limited access to emergency vehicles;

4. The proposed construction has the potential to impact traffic at area intersections;

5. The proposed construction has the potential to impact limited water and sewer resources;

6. The proposed construction has the potential to result in visual impacts to public viewpoints, including the Hudson River and the Stony Point Battlefield Historic Site (included on National Registry of Historic Sites), and to neighboring residences; and

7. The proposed construction has the potential to impact the Hudson River and Haverstraw Bay Significant Coastal Fish and Wildlife Habitat.

B. PROJECT DESCRIPTION

The project site is bound by private properties on the south; the CSX Railroad Corporation right-of-way to the west; the Stony Point Battlefield State Historic Site and Lighthouse to the north; and by the Hudson River to the east. The site is currently occupied by a marina and its various industrial buildings and boat yards, used for offices, boat repair, and storage. Redevelopment of the site is proposed to include the demolition of existing buildings and the investigation and cleaning of environmental hazards that may be associated with its current use. The total combined acreage of the site is 41 acres, with 20.6 acres located within the Hudson River.

The property is proposed to be redeveloped as a multi-family residential complex with a commercial component concentrated on its south end and a public esplanade along the entirety of its Hudson River frontage. It is designed for approximately 268 units of proposed housing in accordance with the density standards promulgated by the Stony Point Zoning Local Law for mixed-use waterfront developments. Residential units will be divided into at least four buildings to break up the bulk of a single monolithic structure.

In accordance with the Stony Point Zoning Local Law, height of the buildings is to be measured from the higher of existing grade or the FEMA 100-year storm elevation of 12 feet plus two feet and will not exceed 45 feet above base flood elevation.

The design of these residences will maximize views and create a waterfront neighborhood complementing the area. Proposed building materials will be in keeping with the project site's setting and neighborhood character, using durable low-maintenance materials for exterior finishes. A pool, lawns and patios will be included in the development.

The project will include an esplanade walkway along the Hudson River which will be open to the public.

A 2-story building located at the south end of the site (accessed via Hudson Drive) will contain a restaurant with terrace, commercial and office spaces. The existing boat slips and docks are proposed to be rebuilt and reconfigured into a total of approximately 100 boat slips. A public fishing pier will be constructed in the southern portion of the waterfront area. Parking for the public spaces, such as the restaurant, fishing pier and esplanade, will be provided as per the Town's code.

C. REQUIRED APPROVALS

a. Involved Agencies

It is anticipated that the following approvals will be required:

Site Plan	Stony Point Planning Board
Conditional Use	Stony Point Planning Board
Nationwide General Permit 404 Clean Water Act Section 10 Rivers and Harbors Act Individual Permit	US Army Corps of Engineers
Protection of Waters Excavation & Fill of Navigable Waters Docks, Moorings or Platforms 401 Water Quality Certification Coastal Erosion Management SPDES GP-0-15-002 Freshwater Wetlands	New York State Department of Environmental Conservation

Possible Incidental Takings Permit Possible Site Remediation Storm Water Management Plan and Report for MS4	New York State Department of Environmental Conservation
Certificate of Compliance	New York State Department of State, Division of Coastal Zone Management
Utility Easements (Cable) Permanent Structures Easement	New York State Office of General Services
Sewer Hookups	Stony Point Town Board; Joint Regional Board
Sewer Main Extension	Rockland County Health Department
Water Main Extension	Rockland County Health Department
Acceptance of Esplanade	Stony Point Town Board
LWRP Compliance	Stony Point Waterfront Commission
Mosquito Control Permit	Rockland County Department of Health

b. <u>Interested Agencies</u>

Additionally, the following interested agencies have been identified that may have interest in the proposed development:

Town of Stony Point Fire District
Town of Stony Point Ambulance Corps
Town of Stony Point Police Department
North Rockland Central School District
Stony Point Battlefield State Historic Site
Palisades Interstate Park Commission
New York State Office of Parks, Recreation, and Historic Preservation
Town of Cortlandt
Rockland County Department of Highways
Rockland County Department of Planning
Rockland County Office of Fire and Emergency Services
Stony Point Architectural Review Board
Orange and Rockland Utilities
SUEZ Water
CSX Railroad

D. GENERAL SCOPING CONSIDERATIONS

The Draft Environmental Impact Statement ("DEIS") shall address all items in this Scoping Document and conform to the format outlined in this Scoping Document. If appropriate, impact issues listed separately in this outline may be combined in the DEIS, provided all such issues described in this Scoping Document are addressed as fully in a combined format as if they were separately addressed.

The document shall be written in the third person. The terms "we" and "our" should not be used. The Applicant's conclusions and opinions should be identified as those of the "Project Sponsor," "Applicant" or "the Developer."

Narrative discussions should be accompanied by appropriate charts, graphs, maps and diagrams whenever possible. If a particular subject matter can most effectively be described or illustrated in graphic format, the narrative discussion should summarize and highlight the information presented graphically.

The entire document should be checked carefully to ensure consistency with respect to the information presented in the various sections. The document will be concisely written and information will be cross-referenced rather than repeated.

Environmental impacts should be described in terms that the lay person can readily understand (e.g., truck-loads of fill and cubic yards rather than just cubic yards).

All discussions of proposed mitigation measures should consider at a minimum those measures outlined and described in the Scoping Outline. Where reasonable and necessary, proposed mitigation measures should be incorporated into the Proposed Action if they are not already included.

The DEIS is to convey general and technical information regarding the potential environmental impacts of the proposed project to the Lead Agency, as well as identified Interested and Involved agencies involved in the review of the proposed project. Enough detail will be provided in each subject area to ensure that lay readers of the document will understand, and be able to make decisions based upon, the information provided. Highly technical material will be summarized and, if it must be included in its entirety, will be referenced in the DEIS and included as an Appendix.

To the greatest extent practicable, the DEIS will contain objective statements and conclusions of facts based upon technical analyses. Subjective evaluations of impacts where evidence is inconclusive or subject to opinion will be prefaced by statements indicating that "It is the Applicant's opinion that...". The Lead Agency reserves the right, during review of the document, to require that subjective statements be removed from

the document or otherwise modified to indicate that such subjective statements are not necessarily representative of the findings of the Planning Board acting as Lead Agency for the Proposed Action.

Full scale plans will be included with the DEIS as an appendix and reduced copies of such plans will be included in the text of the DEIS. Interested and Involved agencies will be given all appendices in Adobe Portable Document Format (.pdf) on a CD-ROM. The entire document will be provided in .pdf format, for posting on the Town's website, once it has been deemed "complete" by the Planning Board acting as Lead Agency.

E. PRIOR ENVIRONMENTAL REVIEW

The Town of Stony Point adopted a Negative Declaration of Environmental Significance at the time that the zoning for mixed-use waterfront developments was added to the PW District. This negative declaration was based on a generic impact analysis of the type of development that could proceed under the zoning that was adopted.

It is not necessary that analyses, and investigations conducted for that SEQR be repeated or duplicated within the DEIS. To the extent that potential impacts have been previously considered the DEIS may instead:

1. Identify the considerations upon which the Town Board based their Negative Declaration;

2. Verify that the proposed development is within the thresholds established for consideration of potential impacts (e.g. height and bulk for visual impact, anticipated schoolchildren for school impacts, trip generation for traffic, etc.);

3. Update and provide more detail on the proposed project to establish that impacts would not result from the specific development as proposed in comparison with the generic development envisioned or anticipated when the zoning was adopted;

4. Update information that may have changed since the adoption of the zoning, or that may have been generic or dated when the zoning was adopted (e.g. traffic counts at area intersections).

F. DEIS SCOPE AND CONTENT

I. COVER SHEET

a) The cover sheet of the DEIS will include the following information:

b) Identify that the document is a draft EIS;

c) Identify the Project as: Eagle Bay;

d) Identify the parcel by location (county and town), street address(es), and tax ID;

e) Identify the Lead Agency as the Stony Point Planning Board along with address of the lead agency and the name and telephone number of the Planning Board Chairman who can provide further information;

f) List the names of individuals or organizations that prepared any portion of the DEIS;

g) Provide the date of the DEIS's acceptance by the lead agency; and

h) Provide the date by which comments on the DEIS must be submitted.

II. TABLE OF CONTENTS AND SUMMARY

A. Table of Contents

The DEIS will include a table of contents identifying major sections and subsections of the document. Table of contents must also include a list of figures, tables, and a list of appendices and a list of any additional volumes if necessary.

B. Project Summary

An Executive Summary shall be required and will provide a précis of the more comprehensive information included within the document. No information will be included in the Executive Summary that is not found within the body of the document. The executive summary will include the following elements at a minimum:

1. Description of Action
2. Significant, Beneficial, and Adverse Environmental Impacts

3. Proposed Mitigation Measures
4. Alternatives to the Proposed Action
5. Regulatory Requirements: List of required Permits and Approvals

III. PROPOSED DESCRIPTION AND NEED

A. Project, Sponsor, Objective, and Public Need

1. Background and History of Sponsor and Project
2. Public Need for Project
3. Objectives of Sponsor
4. Benefits of Proposed Action
    a. Social
    b. Economic/Fiscal
    c. Housing

B. List of Involved and Interested Agencies

C. Location

1. Geographic Boundaries of Site with map
2. Access to Site with map
3. Existing Land Use and Zoning with maps
4. Easements, fee ownership of any utility installation on the site, or private agreements that may affect the proposed use of thesite

D. Design and Layout

1. Environmental Character of Site and Adjacent Land
    a. Description of Site
    b. Description of Stony Point Battlefield State Historic Site, a National Landmark
    c. Description of Surrounding Waters, including the Haverstraw Bay Significant Coastal Fish and Wildlife Habitat to the east, and the Stony Point Bay

d. Description of how public areas and private areas will interact.

2. Total Site Area

a. Proposed Impervious Surface
b. Amount of Land to be Cleared
c. Open Space and Wetlands
d. Proposed Facilities – General discussion of number and size of buildings, proposed uses, number of units and general layout including public esplanade. General discussion of proposed utilities. Include concept plan.
e. Building Envelopes
f. Littoral zone uses

3. Design consideration and construction methods relative to location within a FEMA 100-year floodplain (A and V zones)

E. Construction and Operation

1. Total Construction Period Anticipated and hours of daily operation.
2. Construction Schedule and Associated Factors (i.e. employment, and quantification of construction vehicle trips and access.)
3. Phasing, including description of how phasing will avoid, minimize or reduce impacts to Significant Coastal Fish and Wildlife Habitat
4. Staging area – location(s) and description of proposed area
5. Operation - operation of commercial component, hours and time of year of operation for boat slips, including winter boat storage and operation of public amenities. Hours of operation for access.

IV. PHYSICAL ENVIRONMENTAL SETTING AND IMPACT/MITIGATION ANALYSIS

A. Geology

Existing Conditions

1. Summary of existing site geology
2. Description of the depth to bedrock
3. Geotechnical Investigation/Report: conduct on site borings to determine soil characteristics and depth of any unsuitable or bedrock, depth to any water will also be noted.

Potential Impacts:

1. An assessment of potential impacts to site geology based on proposed grading plans, what impacts will result if adverse geology is encountered.

Proposed Mitigation:

1. Discuss how identified impacts are proposed to be mitigated.

B. Soils and Topography

Existing

Conditions:

1. Soil Types based on the Rockland County Soil Survey and distribution on the site.
2. Soil Characteristics – potential for erosion or other limiting factors of soil types, if any.
3. General description of site topography, identification of slopes over 15% and 25% and discussion of the amount of proposed disturbance within these slope categories.
4. Historic Fill – discuss potential for historic waste. A phase 1 environmental site assessment shall be provided documenting any known contamination issues on the site, including the location of existing bulk storage facilities

Potential Impacts:

1. Impacts from disturbance of soils based on conceptual grading plans and discussion of amount of soil to be imported or exported from the site.
2. Impacts from proposed retaining walls.
3. Ability of soil to support proposed structures. A discussion of the extent of soil borings/testing to be provided
4. A discussion of rules and regulations pertaining to the importation of fill to be included if applicable. The cut and fill analysis will describe town regulations.
5. Analysis of potential for soil or water contamination during a flood event.

Proposed Mitigation:

1. Mitigation of impacts including but not limited to conceptual Erosion Control and Sediment Control Plan in Accordance with the "New York State Guidelines for Urban Erosion and Sediment Control.

2. In the event that any contaminated soils or bulk storage containers are discovered, mitigation will be discussed.

C. Ecology

Existing Conditions:

1. Identify and catalog species of plants and fauna found on site or potentially to be found on site, including those within the tidal area in the Hudson River. Include correspondence with the DEC Natural Heritage Program.
2. Identify species which are included on federal and/or state lists of endangered, threatened, protected/invulnerable species which may be found on the site or in the immediate vicinity, including the Shortnose sturgeon (*Acipenser brevirostrum*) and the Bald Eagle (*Haliaeetus leucocephalus*).

3. Description of Haverstraw Bay Significant Coastal Fish and Wildlife Habitat, including reference to NYS Office of Planning and Development Standards.
4. Provide a map of the location of beds of Sub-Aquatic Vegetation (SAV).

Potential Impacts:

1. Impacts to Plant and Animal life as a Result of the Proposed Construction Activity and Post Development Impacts on both a long- and short-term basis. Habitat loss, lighting and noise impacts, etc.

2. Impacts to habitat for identified species included on federal and/or state lists of endangered, threatened, and protected/invulnerable species and the likelihood of the habitat being located on the project site.

3. Impacts to Regulated Wetlands or Watercourses
   a. Identify size and jurisdiction of wetland areas and any required regulated areas.
   b. Site construction impacts including the amount of disturbance and whether disturbance will be temporary or permanent.
   c. Impacts from stormwater runoff.
   d. Hudson River aquatic impacts, including submerged aquatic vegetation (SAV) and a description of Haverstraw Bay Significant Coastal Fish and Wildlife Habitat, including reference to NYS Office of Planning and Development Standards and conduct of Habitat Impairment Test as required by Stony Point LWRP:

      http://www.dos.ny.gov/opd/programs/consistency/Habitats/HudsonRiver/Haverstraw_Bay_FINAL.pdf
   e. Protection of Waters – Article 15, Title 5 of ECL- Identify work waterward of Mean High Water. Discuss any modification, replacement or expansion of existing bulkheads as well as pilings for proposed docks. Provide underwater bathymetry.

Discuss intended use of docks and impact on boat draft.

f. Discuss whether repair, replacement or modification to shoreline is contemplated and if so reference DEC guidance on Shoreline Stabilization Techniques and Hudson River National Estuarine Research Reserve, Hudson River Sustainable Shorelines Project.

g. Discuss if dredging will be required.

h. Include discussion of whether there is an existing water grant and whether any portion of the docks will be constructed on State owned land under water.

i. Include discussion justifying size, location, number and use of structures over water in relation to current and historic marina.

j. Address impact from lawn fertilizer, pesticides, and herbicides which might be applied to lawn areas, plus pool chemicals on wetlands and the Hudson River.

4. Discuss the potential for impacts to any SAV beds in the study area.

Proposed Mitigation:

1. Discuss how identified impacts are proposed to be mitigated.
2. Discuss alternative shoreline stabilization measures such as living shorelines.
3. Discuss alternative breakwater design options
4. Discuss storm and flood resilience techniques

D. Flooding and Stormwater Management

Existing Conditions:

1. Existing Drainage Patterns shall be described and presented on maps and in a SWPP.

   a. Pre-construction drainage calculations

2. Beach Road review and analysis of existing conditions, flooding history and existing issues.

3. Analyze the effect of sea level rise using projections from 6 NYCRR Part 490. Consider the analysis and recommendations of the Report on Coastal Vulnerability and Sea Level Rise for the Town of Stony Point prepared by Turner Miller Group and Great Ecology dated December 8, 2014 as it relates to the project site.

4. Discussion of FEMA flood hazard areas existing on the site.

Potential Impacts:

1. Proposed Stormwater Drainage Plans shall be described and presented on maps and in a SWPP.

   a. Long- and short- term impacts.

   b. Post construction drainage calculations – include relevant water quantity and/or water quality provisions as per the most up-to-date NYS DEC regulations.

2. Evaluation of stormwater or flood impacts to Beach Road as a result of the Proposed Action.

3. Evaluation of water quality impacts to the Hudson River due to stormwater runoff or flood conditions including consideration of pollutants likely to accumulate on parking lots such as, road salt oil and other vehicular pollutants.

4. Evaluation and discussion of post-construction flood impacts to surrounding neighbors.

5. Discussion of conformance with relevant regulations governing construction in a floodplain.

6. Provide a map and description of buildings to be located in the floodplain.

Proposed Mitigation:

1. Discuss how identified impacts are proposed to be mitigated.

2. Identify green infrastructure and water conservation opportunities that may mitigate flood or stormwater impacts and contamination from upland pollutants to the Hudson River.

V. SOCIOECONOMIC SETTING AND IMPACT ANALYSIS

A. Land Use and Zoning

Existing Conditions:

1. Existing Zoning of the Site and Surrounding Areas. Reference existing zoning and the analysis that was done during the adoption thereof.

2. Description of the existing land use of the project site and surrounding area.

Potential Impacts:

1. Compliance with current Town Comprehensive Plan.
2. Compliance with Town Zoning and other applicable Town regulations. Discuss the need for any variances or waivers.
3. Compliance with the Stony Point Local Waterfront Revitalization Program (LWRP) and the New York State Coastal Management Program (CMP) and consistency with LWRP policies.
4. Compliance with NY Communities Rising Stony Point: Community Reconstruction Plan (https://stormrecovery.ny.gov/sites/default/files/crp/community/documents/stonypoint_nyrcr_plan.pdf)
5. Description of New York Rising with regard to the Waterfront Resiliency Plan.
6. A discussion of the AT&T easement on the project site is to be included.
7. Any proposed affordable housing will be identified.
8. Description of the minimum combined acreage required for the Proposed Action under the new PW zoning code amendments, including buildable acreage calculation demonstrating land and water acreage and the unit count.
9. Discuss application for HUD grants if applicable.
10. Discuss how the Proposed Action has the potential to impact neighborhood character.

Proposed Mitigation:

1. Discuss how identified impacts are proposed to be mitigated.

B. Historical and Archaeological

Existing Conditions:

1. A Phase 1A Archaeological site investigation analysis will be provided identifying the potential for encountering archeological resources based on a literature search and sensitivity study. The potential presence of archeological resources will consider the extent to which previous site construction and disturbance precludes the presence of archeological resources.

Potential Impacts:

1. Any Phase 1B investigations should be limited to those areas of impact that are likely to contain archeological resources and do not have a record of previous site disturbance for site grading and building construction. If items of historic significance are located, the appropriate agency will be contacted to ensure proper preservation.

2. Impacts on the visual effect of the proposed development on the neighboring historical sites (the Stony Point Battlefield and Stony Point Lighthouse), and the visual appearance from the Hudson River, and the adjoining residential community will be evaluated and discussed.

3. Impact of potential noise from the development on conducting cultural events at the Stony Point Battlefield.

Proposed Mitigation:

1. Discuss how identified impacts are proposed to be mitigated.

C. Transportation

Existing Conditions:

1. The traffic capacity analysis performed for the mixed-use waterfront development zoning amendments shall be updated with more recent counts on all intersections considered in the EAF Part III of that analysis, including an update of the capacity analysis of the North area of the PW District. Capacity analysis will be conducted at the following intersections which are likely to be impacted by the Project:

   - Route 9W/East/West Main Street;
   - Route 9W/Tompkins Avenue;
   - Wood Avenue/Farley Drive/Tompkins Avenue; • Beach Road/Tompkins Avenue/Hudson Drive;
   - Beach Road/East Main Street.

   Counts shall be taken during morning and evening hours when school is in session and during summertime (between June 1st and September 30th). Additionally, the update shall address the eight identified limitations to the EAF Part III analysis, listed here and attached as an appendix:

   a. The traffic data used are several years old. There has not been much development in this area in the last several years, and the recession has affected traffic volumes, but it is uncertain whether traffic volumes have gone up or down in this time period.

   b. The capacity calculations are based on optimum (idealized) signal timing set by the computer. These timings may be different from those set by NYSDOT.

   c. The capacity analysis for the P.M. peak hour at the intersection of Route 9W and Main Street shows three

lane groups operating at level of service E. Revising the optimized signal time could reduce this to one lane group, but average vehicle delays to the major traffic movements (the north/south movements on Route 9W) and to the intersection as a whole would increase.

d. The southbound left turn is projected at 20 vehicles per hour. Since the signal would operate at between 36 and 40 cycles per hour, the southbound left turn green phase would be actuated in no more than a half of the signal cycles. The capacity analysis methodology does not take this fully into account.

e. Some left turn vehicles may be able to make the movement during the thru green phase, thus reducing the time required for the green arrow phase.

f. If the delays to the left turn movement out of Tompkins Avenue become excessive, some of the traffic from the north area may divert to East Main Street to access Route 9W. If the delays to the left turn from East Main Street to southbound Route 9W become excessive, some of the traffic from the south area may divert to Grassy Point Road and Beach Road to access Route 9W at Railroad Avenue.

g. Because the retail components of the waterfront developments were assumed to basically be serving the residential and marina components, these trips were considered to be internal, and were not added to the total generated traffic. Also, these internal trips could have been subtracted from the trip generation from the retail component; it is not considered that this would be of a significant impact.

h. Possible physical mitigation measures are limited. If future traffic calls for it a traffic signal could be installed at the intersection of Route 9W and Tompkins Avenue. A signal warrant analysis would be required. A right turn lane from northbound Route 9W into East Main Street would be useful, but the presence of Lowland Hill Road may make this physically infeasible.

Any new developments not considered by that analysis and anticipated to be constructed prior to build year of the proposed project shall be considered. This will include consideration of the currently closed US Gypsum site coming back to full

operation in the event that the site can come back without discretionary approval requiring SEQR review.

The analysis shall describe the current alignment of roads, any traffic control devices, posted speed limits for approaches and indicate the current ownership of all roads.

2. Identify current levels of use, weight limits and potential traffic safety concerns at the impacted intersections as well as along Beach Road.
3. Describe any pedestrian amenities, trails, crosswalks, means of pedestrian safety. Describe any available public transportation.
4. Current impacts to roadways and traffic during flood conditions including the CSX tunnel and Beach Road access.

Potential Impacts:

1. Potential adverse impacts to capacity and or safety of vehicular, nonmotorized or public transportation shall be identified. The potential need for the improvements described in the traffic capacity analysis for the project will be evaluated and discussed.
2. Describe the impact of the Project on Hudson Drive north of Tomkins Avenue, currently a private road. Discuss whether public dedication is appropriate.
3. Discussion of parking to support anticipated uses.
4. Microscale CO analysis screening using NYSDOT's screening tools at https://www.dot.ny.gov/divisions/engineering/environmentalanalysis/repository/envtools.html

   and if potential significant air quality impacts are proposed to occur, further analysis consistent with DOT protocol.

5. Traffic analysis will use rates for boat slips and public promenade consistent with peak season.

6. Traffic report should analyze any impacts to above listed intersections due to potential flooding of Beach Road as it relates to not only site but also emergency services during construction and operation of the site.

7. Identify potential truck routes, delivery hours of operation, anticipated truck trips sequencing and time frame in which impacts could be expected.

8. Discuss whether vehicular or pedestrian access to any areas of the site will be limited.

Proposed Mitigation:

1. Discuss how identified impacts are proposed to be mitigated.

D. Visual Resources

Existing Conditions:

1. This section should discuss the existing visual character of the area.

Potential Impacts:

1. This section should discuss any change in visual character of the area as a result of the Proposed Action by presenting architectural elevations and/or renderings of the proposed structures and public open space.

   Additionally, a visual analysis illustrating the topographic and roof-height relationship of the Proposed Action to surrounding properties will be prepared. A balloon test shall be conducted during leaf-off months and photographed (using 35mm to 50mm focal length) from vantage points

identified in the EAF Part 3 for the mixed-use waterfront development zoning amendments:

a. View from Riverfront Park toward the project site and Stony Point Battlefield;
b. View from Beach Road looking north across Clark Park toward the project site and Stony Point Battlefield;
c. View from Beach Road at Tomkins Avenue north across the site toward the Stony Point Battlefield;
d. View from Hunter Place at railroad underpass;
e. View from Farley Avenue at Nordica Circle (northerly intersection) looking east to Hudson River
f. View from Stony Point Battlefield looking south toward project site (contact PIPC to discuss prominent vantage points for consideration);
g. Views from Jackson Drive just east of Lincoln Oval looking southeast over the project site;
h. Views from the Hudson River in the Stony Point Bay/Haverstraw Bay looking toward the project site from 1/4 and 1/2 mile east of site
i. Views from the Town of Cortlandt looking toward the project site and Stony Point Battlefield, including from public access areas of Town of Cortland Waterfront Park and Georges Island Park.

2. Involved Agencies shall be notified at least seven (7) days prior to the balloon tests. Advertisement of the tests will be published in the newspaper of record and on the Town website in advance of the test. Computer generated simulations shall depict pre-and post-development conditions. This visual analysis to be provided by the applicant will exceed NYSDEC regulations for assessing visual impacts.

3. Describe site lighting in terms of proposed fixture locations, spacing and wattage for building-mounted lighting, parking area lighting and lighting of the public esplanade and boat slips. Potential impacts to neighboring uses and night sky shall be assessed.

4. Describe the mitigative effects of proposed landscaping plan, if any.

5. Describe building architecture including building colors materials and texture.

6. Appropriate reference shall be made to *Revitalizing Hudson Riverfronts,* and other relevant visual resource guides.

7. Potential adverse impacts and proposed mitigations shall be identified.

Proposed Mitigation:

1. Discuss how identified impacts are proposed to be mitigated.

E. Community Services and Utilities.

Existing Conditions:

1. Describe existing domestic water supply system and capacity.

2. Municipal sewer system. Describe existing system and proposed improvements. Investigate existing capacity of public system.

3. Interview the plant operator to ascertain any potential limitations to support the proposed development. Interview Town Engineer with regard to existing conditions of conveyance system including pipe size, slope, carrying capacity, pump stations, infiltration, permitting and impacts of flooding and impacts from project, during both wet and dry weather flows.

4. Emergency services (fire, police, ambulance and paramedics and mutual aid services). Identify and describe existing service (day and evening) from each department and response time to protect site. Describe areas prone to flooding and historical emergency response during floods. Discussion of flood management and evacuation plans currently in place for the area.

5. This section shall discuss any relevant town and/or county plans and policies regarding the management of solid waste.

6. School district. Identify existing public-school facilities that will be impacted by future residents of the project.

Potential Impacts:

1. Domestic water supply.
   a. Central water system. Describe proposed improvements. Calculation of anticipated usage and describe and provide a plan of proposed system with sizing calculations. Include analysis of potential conservation measures including irrigation and detention methods, use of drought resistant plant species, low- flow and water-sense fixtures and appliances.
   b. Evaluate the source of water for fire department requirements based on the proposed housing size, type, and style. Include a description and analysis of fire flow rates.

2. Municipal sewer system. Describe proposed improvements. Evaluate possible impacts of the proposed development including impacts on existing pump stations. Calculation of anticipated usage and provide plan of proposed system and sizing calculations.
   a. Potential impacts to the system from flooding

3. Emergency services (fire, police, ambulance and paramedics and mutual aid services). Based on department interviews, discuss the ability of each department to provide service and demonstrate coordination with each department.
   a. Emergency evacuation routes and schedules will be demonstrated.
   b. Emergency access by firefighting and ambulance equipment during 100-year flood events should be discussed. Examine interior

and exterior fire access roads including underpass on Tompkins Avenue and Hunter Place.

4. This section shall discuss the anticipated volume of solid waste and proposed method of collection or disposal.

5. School district. The project shall revisit the consideration to school impacts made during the SEQRA review of the proposed PW zoning amendments allowing mixed-use waterfront developments and update and discuss as appropriate based on more detailed project considerations available.

6. Fiscal Impact. Based on the per capita multiplier average costing method, a fiscal impact analysis shall be provided that predicts the per capita cost of the proposed development to the Town of Stony Point and North Rockland School District. Tax revenues shall be predicted based on proposed sales prices taking into account the fee-simple or condominium ownership of proposed residential units. Assessed value of proposed non-residential uses shall be estimated using area comparables on a square footage or other appropriate basis. Cost for nonresidential uses shall be based on the proportional valuation average costing method. Discuss whether applicant will be applying for any tax relief such as a PILOT program. The fiscal implications of units being rented or owned as fee-simple or condominium units shall be discussed, and the calculations shall account for the project proposal.

7. Evaluate the possible impacts of the proposed Champlain Hudson Power Express (CHPE) installation of underground DC cable presently planned within the CSX railroad R.O.W. on the proposed site development with regard to public safety.

8. Describe the size, design and proposed amenities for public spaces, including the proposed esplanade, and access and parking associated with public spaces. An alternative to include potential extension of the proposed public trail north to the Battlefield site will be considered, including feasibility of construction and how access to the battlefield could be adequately controlled.

   a. Discuss proposed public amenities: Physical access points, hours of operation, how they will be maintained and by whom, and the proposed legal mechanism guaranteeing public access.

   b. Discuss how public areas will be divided from private areas either through physical barriers, differentiation of design, signage or other mechanisms.

   c. Discuss how many of the proposed boat slips will be available for public, transient use. Discuss how public and private boat slips will be maintained, and the ongoing viability of a marina.

Proposed Mitigation:

1. Discuss how identified impacts are proposed to be mitigated.
2. Efforts to reduce solid waste on site.
3. Discuss the use of native plants in the landscape plan and proposed irrigation plan including any proposed water conservation measures

VI. <u>ALTERNATIVES</u>

A. Alternative Design and Technologies – Applicant is seeking less than maximum density under current zoning regulations. In addition, the following alternatives will be discussed:

1. No Build/Action
2. Maximum-density proposal under PW District provision.
3. Proposed-density plan.
4. Reduced-density plan of 200 residential units.
5. Structural Parking plan which shows parking under some or all proposed buildings.

VII. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT ON RESOURCES

A. Human or natural resources that will be consumed, converted, or made unavailable for future use as a result of this project.

VIII. UNAVOIDABLE ADVERSE ENVIRONMENTAL IMPACTS

A. Adverse environmental impacts associated with the project that cannot be avoided despite any proposed mitigation.

IX. IMPACTS OF THE PROPOSED USE ON THE USE AND CONSERVATION OF ENERGY.

This discussion is required by SEQR regulations. The energy service provider should be identified, and any improvements required for service. Any energy saving techniques should be discussed such as LED lighting, purchase of electric energy from wind or solar sources, use of Energy Star rated appliances or LEED (Leadership in Energy and Environmental Design) certification

X. GROWTH INDUCING ASPECTS

This section will describe the potential growth aspects the proposed project may have.

XI. APPENDIX

A. List of consultants with addresses and telephone numbers

B. List of references

C. Copies of correspondence relating to this project.

D. Copies of all technical reports and documentation in their entirety.

THE FOLLOWING APPENDICES ARE ANTICIPATED:

- Underlying studies, reports and information considered and relied on in preparing the DEIS
- Traffic technical analyses and report
- Stormwater Calculations, including all supporting technical data
- Water Supply data and supporting technical reports
- Sewage technical data
- Fiscal Impact technical analyses
- Emergency responders' study – access and services to be provided
- Visual impact analysis – riverfront, neighboring community, historic sites

Appendix B: Stormwater Pollution Prevention Plan (SWPPP)

TABLE OF CONTENTS

SECTION 1: Stormwater Pollution Prevention Plan Report Complying GP 0-15-002

1.0 INTRODUCTION

- 1.1 NOTICE OF INTENT
- 1.2 SWPPP GOALS AND OBJECTIVS

2.0 SITE DESCRIPTION

- 2.1 Project Name & Location:
- 2.2 Owner/Operator Name & Address:
- 2.3 General Contractor*:
- 2.4 Description:
- 2.5 Impervious Cover:
- 2.6 Site Area:
- 2.7 Location Map
- 2.8 Sequence of Major Activities:

3.0 CONTROLS

- 3.1 EROSION AND SEDIMENT CONTROLS STABILIZATION PRACTICES
  - 3.1.1 Temporary Stabilization:
  - 3.1.2 Permanent Stabilization:
- 3.2 STRUCTURAL PRACTICES
- 3.3 STORMWATER MANAGEMENT WATER QUALITY
  - 3.3.1 Name of Receiving Waters:
- 3.4 PEAK FLOW ATTENUATION
- 3.5 RUNOFF CONVEYANCE SYSTEMS
- 3.6 OTHER CONTROLS
  - 3.6.1 Waste Materials:
  - 3.6.2 Hazardous waste:
  - 3.6.3 Sanitary Waste:
  - 3.6.4 Offsite Vehicle Tracking:
- 3.7 TIMING OF CONTROL MEASURES
- 3.8 CERTIFICATION OF COMPLIANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS

4.0 MAINTENANCE & INSPECTION PROCEDURES

- 4.1 SEDIMENT & EROSION CONTROL INSPECTION AND MAINTENANCE PRACTICES
- 4.2 SUMMARY OF SWPPP REQUIRED DOCUMENT FILINGS

5.0 NON-STORM WATER DISCHARGES

5.1 NON-STORMWATER DISCHARGES

6.0 INVENTORY FOR POLLUTION PREVENTION PLAN

6.1 MATERIAL SUBSTANCES

7.0 SPILL CONTROL & PREVENTION

7.1 MATERIAL MANAGEMENT PRACTICES
7.1.1 Good Housekeeping:
7.1.2 Hazardous Products:
7.2 PRODUCT SPECIFIC PRACTICES
7.2.1 Petroleum Products:
7.2.2 Fertilizers:
7.2.3 Paints:
7.2.4 Concrete Trucks:
7.3 SPILL CONTROL PRACTICES

8.0 SUPPORTING PLANS & REPORTS

9.0 POLLUTION PREVENTION PLAN CERTIFICATION

9.1 OWNER/OPERATOR CERTIFICATION

10.0 CERTIFICATION BY CONTRACTORS

10.1 PRIME CONTRACTOR CERTIFICATION
10.2 SUB-CONTRACTOR CERTIFICATION

Figures

Figure 1: Site Location Map (source: maps.google.com)

Appendices

Appendix A – SWPPP CONSTRUCTION SITE LOG BOOK

Appendix B – STORMWATER POND CONSTRUCTION INSPECTION CHECKLIST FORM

Appendix C – SPILL CONTROL & PREVENTION LOG

Appendix D – STORMWATER MANAGEMENT FACILITIES MAINTENANCE AGREEMENT

Appendix E – CONSTRUCTION PLAN DRAWINGS IN (11" X 17")

SECTION 2: Stormwater System Design Report Complying NYS Stormwater Management Design Manual, January 2015.

Hydraulic & Hydrological Study:

- Revision Overview 2-1
- Introduction 2-2
- Site Location 2-2
- Hydrological Soil Group 2-2
- Existing Watershed 2-3
- Proposed Watersheds 2-3
- Drainage Study 2-3
- Mitigation 2-3

Summary Table:

- Summary Flow Table at P.O.I.#1 2-4

Location Maps:

- Street Map 2-5
- Soil Map 2-6

Drainage Calculation

- Existing Condition 2-7
- Developed Condition 2-8

Stormwater Management Practice Design Calculations

- WQv Requirements 2-10
- Water Quantity Requirements 2-16

HydroCAD Model for Existing and Proposed Conditions 1, 10, & 100 Year Storms

- Drainage Schematic 2-17
- 1-Year Storm Model 2-18
- 10-Year Storm Model 2-29
- 100-Year Storm Model 2-40

SECTION 3: SPDES General Permit Per GP 0-15-002

3.1 SPDES ACKNOWLEDGEMENT LETTER ISSUED BY NYSDEC
3.2 FILED OUT NOTICE OF INTENT (N.O.I.)
3.3 MS4 SWPPP ACCEPTANCE FORM

MAPS:

- Drainage Map Existing Condition E-1
- Drainage Map Proposed Condition P-1

EAGLE BAY

TOWN OF STONY POINT
ROCKLAND COUNTY
NEW YORK

SECTION 1:

OPERATION INSPECTION AND MAINTENANCE PLAN REPORT

BY

ATZL, NASHER & ZIGLER P.C.
ENGINEERS-SURVEYORS-PLANNERS
234 NORTH MAIN STREET
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1.0 INTRODUCTION

1.1 Notice of Intent:

Section 402 of the Clean Water Act requires permits for stormwater discharge from construction activities, which disturb one or more acres of land to obtain a permit. To implement this law, the New York State Department of Environmental Conservation (NYSDEC) issued the General Permit GP-0-15-002 for Stormwater Discharges from Construction Activities. The Notice of Intent (NOI) is the means to obtain coverage under this permit.

1.2 SWPPP Goals and Objective:

The goal of the Stormwater Pollution Prevention Plan (SWPPP) is to control runoff of pollutants from the project site during and after construction activities by complying with the NY State Pollutant Discharge Elimination System (SPDES) Stormwater Permit for construction activities and local rules and regulations. The SWPPP will implement the following practices:

- Reduction or elimination of erosion and sediment loading to waterbodies during construction;
- Control of the impact of stormwater runoff on the water quality of the receiving waters;
- Control of the increased volume and peak rate of runoff during and after construction; and
- Maintenance of stormwater controls during and after completion of construction.

The SWPPP will incorporate the proper selection, sizing and siting of the Stromwater Management Practices (SMPs) to protect water resources from stormwater impacts. The design of the proposed SMPs were determined using current engineering methodologies to provide appropriate sizing criteria to avoid overburdening stormwater conveyance structures. Erosion and Sediment Control (ESC), Water Quantity Control, and Water Quality Controls are inter-related components of the SWPPP.

The SWPPP is intended to be a "living" document. The document should be revised and updated by a qualified professional whenever site conditions dictate. Any proposed revisions shall undergo review by the owner or his designated representative prior to incorporation in the SWPPP and implementation at the site. Any proposed modifications shall be in accordance with the New York State Department of Environmental Conservation's technical standards.

2.0 SITE DESCRIPTION

2.1 Project Name & Location:

Eagle Bay
Town of Stony Point
Rockland County, New York
Town of Stony Point Tax Map: Section 15.04, Block 6, Lots 3, 4 & 6

2.2 Owner/Operator Name & Address:

Breakers Stony Point, LP
Attention: Eli Herskowitz
5 Eastview Road, Monsey, New York 10952

2.3 General Contractor*:

_____
(Company Name)

_____
(Street Address)

_____
(City, State, Zip Code)

_____
(Phone Number)

*note – General Contractor shall be identified prior to commencement of work.

2.4 Description:

The project site is located east of Benson Street and north end of Carol Avenue in Town of Stony Point, Rockland County, New York. The site has an area of about 14.96 acres. The existing site consists of buildings, access roads, parking areas, gravel paved areas, and landscaped zones. The developed site will have new buildings, paved parking, access roads and grass landscape cover.

Soil Symbol	Soil Name	Hydrological Soil Group	Reference Page No.*
Uw	Udorthents, wet substratum	C/D**	42

* Soil Survey of Rockland County, New York, United States Department of Agriculture Soil Conservation Service, October 1990.

Soil disturbing activities will include clearing and grubbing; installation of a stabilized construction entrance; grading (cuts & fills); excavation for the installation of drainage pipes, SMPs, sanitary sewer connections, water main connections, building foundations; construction of paved parking lots, the retaining wall, and stormwater management facilities and the preparation for final planting and seeding.

2.5 Impervious Cover:

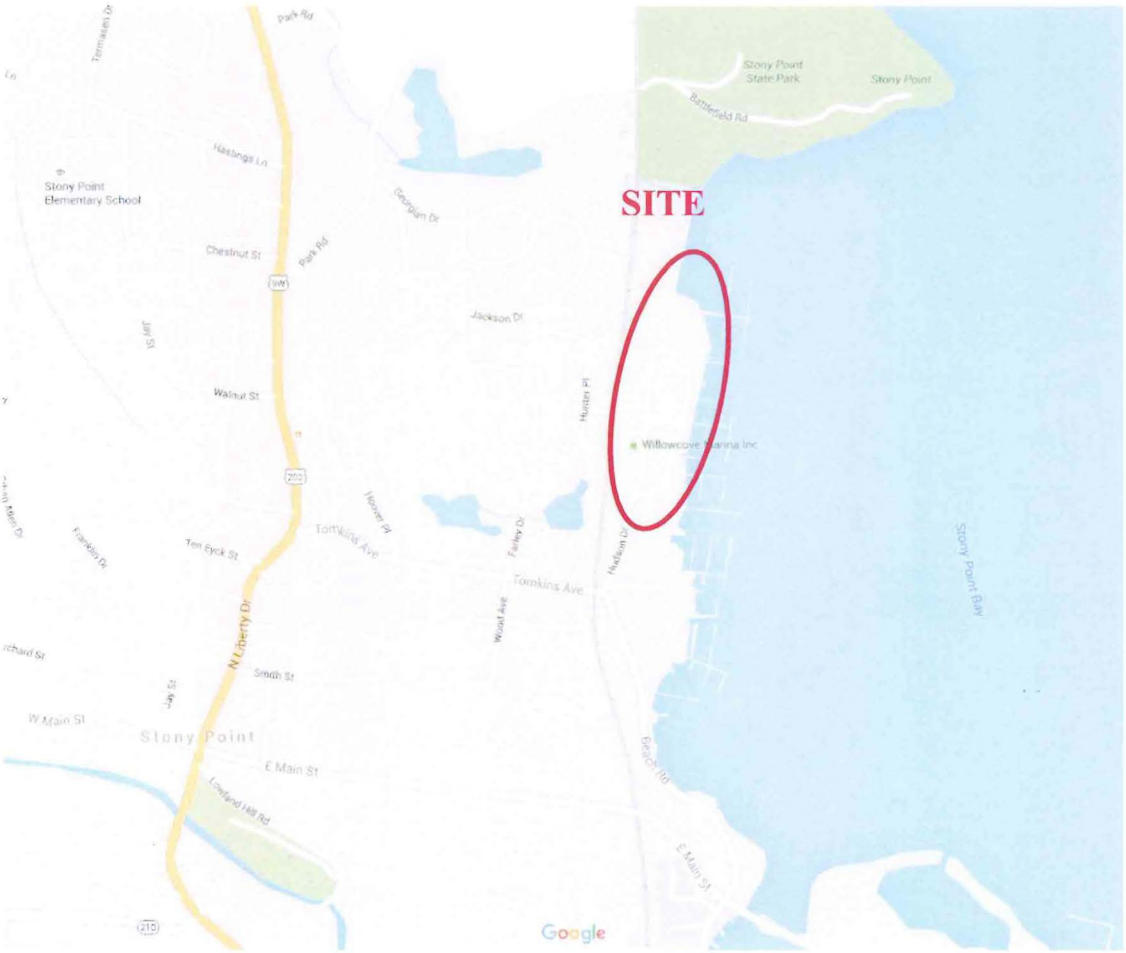
The proposed impervious are within the disturbance will be 11.80 acres. The existing site has a total impervious cover of 11.6 acres, including 5.10 acres of macadam and 6.50 acres of gravel paving. Therefore, the net increase in impervious area will be 0.20 acres upon completion of the proposed condition.

2.6 Site Area:

The total drainage area is approximately 14.96 acres, and almost the whole of this area will be disturbed by the proposed construction activities.

2.7 Location Map:

NORTH



STREET MAP
Source: maps.google.com

2.8 Sequence of Major Activities:

Phasing and schedule of construction is as follows (several phases will overlap):

Phase 1: Clearing and grubbing of designated areas

Phase 2: Land grading according to the approved site development plan

Phase 3: Building construction

Phase 4: Paving and utilities construction

Phase 5: Final Grading, landscaping

The general order of activities will be as follows:

1. Schedule a pre-construction meeting.
2. Locate natural resources and the limit of disturbance per approved plans.
3. Install perimeter erosion and sediment control practices (silt fences).
4. Install construction entrances and temporary staging.
5. Limit grading for installation of E&SC practices.
6. Dispose clearing and grading materials as construction progresses.
7. Stockpile top soil and stabilize.
8. Perform rough grading/cut & fill and stabilize inactive areas.
9. Install utilities and drainage structures.
10. Proceed with partial road construction where applicable.
11. Construct foundation and building structure as per plan.
12. Apply soil restoration practices as described in the plan.
13. Perform final stabilization, i.e. top soil and landscaping.
14. Remove sediment accumulations and complete permanent post construction SMPs per the approved plan.
15. Remove E&SC practices and apply for a Notice of Termination (N.O.T.).

3.0 CONTROLS

3.1 Erosion and Sediment Controls Stabilization Practices:

3.1.1 Temporary Stabilization:

Topsoil, stockpiles, and soils that are exposed and left bare for a period of 14 days which are not being graded, not under active construction for 14 days or more, or not scheduled for permanent seeding within 14 days will be stabilized with temporary seed and mulch. All grass seed mixtures and application rates shall comply with Sediment and Erosion Control Plan.

Areas of the site, which are to be paved; will be temporarily stabilized by applying stone sub-base until bituminous pavement can be applied.

3.1.2 Permanent Stabilization:

Disturbed portions of the site where construction activities permanently cease shall be stabilized with permanent seed no later than 14 days after the last construction activity.

3.2 Structural Practices:

Proposed measures will include silt fences, storm inlet protection, and stabilized construction entrance.

3.3 Stormwater Management Water Quality:

Stormwater runoff entering the site will be directed through a combination of grading, pipes & down spouts, and the required water quality flow will be directed toward the proposed bio-filter systems.

The stormwater management systems have been designed to comply with the most recent NYSDEC design manual requirements. The above-mentioned systems are designed to treat the first flush water quality volume of required impervious area, according to NYSDEC redevelopment rules.

The property owner shall be responsible for the long-term operation, maintenance and inspection of the proposed stormwater management facilities and provide Town of Stony Point with maintenance records.

3.3.1 Name of Receiving Waters:

The site drains towards Hudson River. The site is not located in a designated TMDL watershed area.

3.4 Peak Flow Attenuation:

According to the New York State Stormwater Management Design Manual dated January 2015, the water quantity mitigation is not required since the project site is a watershed that is located within the drainage basin of Hudson River, which is a 5th order stream.

3.5 Runoff Conveyance Systems:

The stormwater pipes and hydraulic control structure system at the site are designed to convey the 10-year peak discharge flow.

3.6 Other Controls:

3.6.1 Waste Materials:

All waste materials will be collected and stored in securely lidded metal dumpsters rented from _____, a solid waste management company located in Rockland County (name of carting company to be identified 30 days prior to commencement of work). The dumpsters will meet Town of Stony Point, Rockland County, and New York State solid waste management regulations. All trash and construction debris from the site will be deposited in the dumpsters. The dumpsters will be emptied as necessary, and the trash will be hauled off site to _____(destination to be identified 30 days prior to commencement of work). No construction waste materials will be buried on site. All personnel will be instructed regarding the correct procedure for waste disposal. Notices stating these practices will be posted in the office trailer and _____, the Job Supervisor, individual who is responsible for managing the day to day site operations, will be responsible for seeing that these procedures are followed (Job Supervisor shall be identified 30 days prior to commencement of work).

3.6.2 Hazardous waste:

All hazardous waste materials will be disposed of in the manner specified by local or state regulation or by the manufacturer. Site personnel will be instructed in these practices and _____, Job Supervisor, individual who is responsible for managing the day to day site operations, will be responsible for seeing

that these procedures are followed (Job Supervisor shall be identified 30 days prior to commencement of work).

3.6.3 Sanitary Waste:

A licensed sanitary waste management contractor (sanitary waste management contractor to be identified 30 days prior to commencement of work) will collect all sanitary waste from the portable units.

3.6.4 Offsite Vehicle Tracking:

A stabilized construction entrance and gravel pad will be provided to wash or spray-clean trucks over before leaving the site in order to prevent track-out of dirt, mud, debris and dust. In addition, trucks will be covered with a tarp and at least 6 inches of freeboard clearance will be maintained to keep excessive dust from escaping the truck during hauling operations.

3.7 Timing of Control Measures:

As indicated in the Sequence of Major Activities, the stabilized construction entrance and other sediment and erosion control activities will be constructed prior to earthwork activities on any part of the site. Any soil areas that are exposed and left bare for a period of 14 days which are not being graded, not under active construction for 14 days or more, or not scheduled for permanent seeding within 14 days will be treated with temporary seed and mulch. Once construction activity ceases permanently in an area, that area will be stabilized with permanent seed and mulch. After the entire site is stabilized, accumulated sediments will be removed from the sediment and erosion control structures and the controls will be removed.

3.8 Certification of Compliance With Federal, State And Local Regulations:

The stormwater pollution prevention plan reflects New York State Department of Environmental Conservation requirements for storm water management and erosion and sediment control, as established in Article 17, Titles 7, 8 and Article 70 of the Environmental Conservation Law. To ensure compliance, this plan was prepared in accordance with guidelines issued with the SPDES General Permit for Storm Water Discharges from Construction Activities that are Classified as "Associated with Construction Activity", published by the NYSDEC.

4.0 MAINTENANCE & INSPECTION PROCEDURES

4.1 Sediment & Erosion Control Inspection And Maintenance Practices:

The following are inspection and maintenance practices that will be used in coordination with the SWPPP Construction Log Book prepared for this project, the template which is included in Appendix A, to maintain sediment and erosion controls:

- The Operator shall have a qualified professional conduct an assessment of the site prior to the commencement of construction and certify in this inspection report that the appropriate erosion and sediment controls described in the SWPPP, an required by the SPDES General Permit for Stormwater Discharges, have been adequately installed or implemented to ensure overall preparedness of the site for commencement of construction. Qualified professional means a person knowledgeable in the principles and practice of erosion and sediment controls, such as a licensed professional engineer, Certified Professional in Erosion and Sediment Control (CPESC), soil scientist, or someone working under the direction and supervision of a licensed professional engineer, Certified Professional in Erosion and Sediment Control (CPESC), or soil scientist (person must have experience in the principles and practices of erosion and sediment control). The template for the initial inspection and assessment is included in Appendix A.
- All control measures will be inspected by a qualified professional at least once each week (7 days) and immediately following any storm event of 0.5 inches or greater.
- All measures will be maintained in good working order. If a repair is necessary, it will be initiated within 24 hours of discovery.
- Provide sprinkle water on the dirt road during hot summer or when appropriate to prevent particles to be air born.
- Built up sediment to be removed from the silt fence when it has reached 1/3 the height of the fence. Sediment traps will be cleaned when built up sediments reaches 25 percent of design capacity.
- Silt fence will be inspected for depth of sediment, tears, to see if the fabric is securely attached to the fence posts, and to see that the fence posts are firmly in the ground.
- Temporary and permanent seeding and planting will be inspected for bare spots, washouts, and healthy growth.
- A maintenance inspection report will be filled out after each inspection and will become part of the SWPPP.
- _____, Job Supervisor – Trained Individual per GP-0-15-002, will select individuals who will be responsible for coordinating efforts with the qualified professional for regular inspections, maintenance and repair activities, and filling out the inspection and maintenance report forms. Inspection reports will summarize:

1. Name of Inspector
2. Qualifications of Inspector
3. Date of Inspection
4. Weather Conditions
5. Areas inspected, including measurements
6. Areas that have undergone temporary and permanent stabilization
7. Indicate all disturbed areas that have not undergone active site work during the previous 14-day period
8. Observed condition of all erosion and sediment control practices
9. Inspect all sediment control practices and record approximate degree of sediment accumulation as a percentage of the sediment storage volume
10. Actions Taken to Correct Problems
11. Incorporate changes necessary to the SWPPP

The template for regular inspections is included in Appendix A.

- Personnel selected for inspection and maintenance responsibilities will receive training from the Job Supervisor and/or the qualified professional. They will be trained in all the inspection and maintenance practices necessary for keeping the erosion and sediment controls used on site in good working order.
- The Operator shall ensure that a record of all inspection reports is maintained in the SWPPP Construction Log Book. The site logbook shall be maintained on site and be made available to the permitting authorities upon request. Prior to the commencement of construction, the Operator shall certify in the site log book that the SWPPP was prepared in accordance with the State's standards and meets all Federal, State and local erosion and sediment control requirements. The Operator shall retain copies of SWPPPs and any reports submitted in conjunction with this permit, and records of all data used to complete the NOI to be covered by this permit, for a period of at least three years from the date that the site is finally stabilized. The Operator shall post at the site, in a publicly accessible location, a summary of the site inspection activities on a monthly basis. The template for SWPPP Construction Log Book is included in Appendix A.
- Prior to filing of the Notice of Termination (NOT) or the end of permit term, the Operator shall have the qualified professional perform a final site inspection. The qualified professional shall certify that the site has undergone final stabilization using either vegetative or structural stabilization methods and that all temporary erosion and sediment controls (such as silt fencing) not needed for long-term erosion control have been removed. Final stabilization means that all soil-disturbing activities at the site have been completed and a uniform, perennial vegetative cover with a density of 80% has been established, or equivalent stabilization measures (such as the use of mulches or geotextiles) have been employed on all unpaved areas and areas not covered by permanent structure. The template for final inspections is included in Appendix A.

- Clean out all **temporary** structures and pipes upon completion of the project.
- When the site has been finally stabilized, the operator must submit a Notice of Termination form to terminate coverage under the SPDES General Permit GP 0-15-002. The permittee must identify all of the permanent stormwater management structures that have been constructed. In addition, an manual describing the operation and maintenance practices that will be necessary for the structures to function as designed after the site is stabilized must be finalized and in-place. The permittee must also certify that the permanent structure have been constructed as described in the SWPPP.

The inspection procedures that will be used for the construction of the proposed Stormwater management facilities are included in the CONSTRUCTION INSPECTION CHECKLIST FORM prepared for this project, the template of which is included in Appendix B, to be used to ensure proper construction.

4.2 Summary of SWPPP Required Document Filings:

The following table provides a summary of the required forms and inspections that need to be completed as part of the SWPPP requirements and which checklist or report document forms need to be used for each:

Name of Document	Form to be Used	When to complete
Pre-Construction Meeting Documents Form	Appendix A – SWPPP Construction Site Log Book	Prior to beginning of construction
Owner/Operator Certification	Appendix A, SWPPP Report	Prior to beginning of construction
Prime Contractor Certification	SWPPP Report	Prior to beginning of construction
Sub-Contractor Certification	SWPPP Report	Prior to beginning of construction
Pre-Construction Site Assessment Form	Appendix A	Prior to beginning of construction
Construction Duration Inspection Forms	Appendix A	Every seven days
Three-Month Status Reports	Appendix A	Every three months
SMPs Construction Inspection Checklist Form	Appendix B	During the construction of the proposed stormwater facilities
Final Stabilization and Retention of Records	Appendix B	At completion of project
Spill Control & Prevention Log	Appendix C	Before and after completion of Project
Stormwater Facilities Maintenance Plan and Inspection Checklists	Appendix D	After completion of Project

5.0 NON-STORM WATER DISCHARGES

5.1 Non-Stormwater Discharges:

It is expected that the following non-storm water discharges will occur from the site during the construction period:

- Water from water line flushing.
- Pavement wash waters (where no spills or leaks of toxic or hazardous materials have occurred).
- Uncontaminated groundwater (from natural springs)

6.0 INVENTORY FOR POLLUTION PREVENTION PLAN

6.1 Material substances:

The materials or substances listed below are expected to be present on the site during construction:

- Concrete
- Detergents
- Paints (enamels and latex)
- Metal Studs
- Roofing Materials
- Tar and Paving Materials
- Fertilizers
- Petroleum Based Products
- Cleaning Solvents
- Wood
- Masonry Block

7.0 SPILL CONTROL & PREVENTION

7.1 Material Management Practices:

The following are the material management practices that will be used to reduce the risk of spills or other accidental exposure of materials and substances to storm water runoff:

7.1.1 Good Housekeeping:

The following good housekeeping practices will be followed on site during the construction project:

- An effort will be made to store only enough products required to do the job.
- All materials stored on site will be stored in a neat, orderly manner in their appropriate containers and, if possible, under a roof or other enclosure.
- Product will be kept in their original containers with the original manufacturer's label.
- Substances will not be mixed with one another unless recommended by the manufacturer.
- Whenever possible, all of a product will be used up before disposing of the container.
- Manufacturer's recommendations for proper use and disposal will be followed.
- The Job Supervisor will inspect daily to ensure proper use and disposal of materials on site.

7.1.2 Hazardous Products:

The following practices will be used to reduce the risks associated with hazardous materials:

- Products will be kept in original containers unless they are not reseal able.
- Original labels and material safety data will be retained; they contain important product information.
- If surplus product must be disposed of, manufacturer's or local and State recommended methods for proper disposal will be followed.

7.2 Product Specific Practices:

The following product specific practices will be followed on site:

7.2.1 Petroleum Products:

All onsite vehicles will be monitored for leaks and receive regular preventative maintenance to reduce the chance of leakage. Petroleum products will be stored in tightly sealed containers, which are clearly labeled. Any asphalt substances used on site will be applied according to the manufacturer's recommendations.

7.2.2 Fertilizers:

Fertilizers will be applied only in the minimum amounts recommended by the manufacturer. Once applied, fertilizer will be worked into the soil to limit exposure to stormwater. Storage will be in a covered shed. The content of any partially used bags of fertilizer will be transferred to a sealable plastic bin to avoid spills.

7.2.3 Paints:

All containers will be tightly sealed and stored when not required for use. Excess paint will not be discharged to the storm drainage system, but will be properly disposed of according to manufacturer's instructions or State and local regulations.

7.2.4 Concrete Trucks:

Concrete trucks will not be allowed to wash out or discharge surplus concrete or drum wash water on the site.

7.3 Spill Control Practices:

In addition to the good housekeeping and material management practices discussed in the previous sections of this plan, the following practices will be followed for spill prevention and cleanups:

- Manufacturer's recommended methods for spill cleanup will be clearly posted and site personnel will be made aware of the procedures and the location of the information and cleanup supplies.
- Materials and equipment necessary for spill cleanup will be kept in the material storage areas on site. Equipment and materials will include, but not be limited to, brooms, dustpans, mops, rags, gloves, goggles, kitty litter, sand, sawdust, and plastic and metal trash containers specifically for this purpose.
- All spills will be cleaned up immediately after discovery.
- The spill area will be kept well ventilated, and personnel will wear appropriate protective clothing to prevent injury from contact with hazardous substances.
- Spills of toxic or hazardous material will be reported to the appropriate State or local government agency, regardless of the size of the spill. The Spill Control & Prevention Log form provided in Appendix C should be used for this purpose.
- The spill prevention plan will be adjusted to include measures to prevent a repetitive type of spill from re-occurring and how to clean up the spill if it does re-occur. A description of the spill, what caused it, and the cleanup measures will also be included.
- The Job Supervisor responsible for daily site operations, will be designated as the spill prevention and cleanup coordinator. He will designate at least

three other site personnel who will receive spill prevention and cleanup training. These individuals will each become responsible for a particular phase of prevention and cleanup. The names of the responsible spill personnel will be posted in the material storage area and in the office trailer on site.

8.0 SUPPORTING PLANS & REPORTS

1. Site Plan Drawings prepared by Atzl, Nasher & Zigler P.C.
2. Soil & Erosion Control Plans prepared by Atzl, Nasher & Zigler P.C.
3. Stormwater Management Design Report by Atzl, Nasher & Zigler P.C.

9.0 POLLUTION PREVENTION PLAN CERTIFICATION

9.1 OWNER/OPERATOR CERTIFICATION

"I have read or been advised of the permit conditions and believe that I understand them. I also understand that, under the terms of the permit, there may be reporting requirements. I also certify under penalty of law that this document and all corresponding attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person(s) who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further understand that coverage under the general permit will be identified in the acknowledgement that I will receive as a result of submitting this NOI. I also understand that, by submitting this NOI, I am acknowledging that the SWPPP has been developed and will be implemented as the first element of construction and agree to comply with all the terms and conditions of the general permit for which this NOI is being submitted."

Signed: _____ Date:_____
(Owner/Operator)

_____
(Printed Name & Title)

_____

_____

_____
(Company Name, Address & Telephone Number)

10.0 CERTIFICATION BY CONTRACTORS

Made pursuant to the State Pollution Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity (Permit No. GP 0-15-002) for:

DSB Realty Associates LLC (North Section), Town of Stony Point, Rockland County, New York

10.1 Prime Contractor Certification:

"I certify under penalty of law that I understand and agree to comply with the terms and conditions of the stormwater pollution prevention plan for the construction site identified in this plan as a condition of authorization to discharge stormwater. I also understand that the operator must comply with the terms and conditions of the New York State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards."

Prime Contractor:

_____	_____
(Signature)	(Company)
_____	_____
(Name)	(Street Address)
_____	_____
(Title)	(City, State, Zip Code)
_____	_____
(Date)	(Phone Number)

10.2 Sub-Contractor Certification:

"I certify under penalty of law that I understand and agree to comply with the terms and conditions of the stormwater pollution prevention plan for the construction site identified in this plan as a condition of authorization to discharge stormwater. I also understand that the operator must comply with the terms and conditions of the New York State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards."

Sub-Contractor:

_____	_____
(Signature)	(Company)
_____	_____
(Name)	(Street Address)
_____	_____
(Title)	(City, State, Zip Code)
_____	_____
(Date)	(Phone Number)

CONTRACTOR and SUBCONTRACTOR CERTIFICATION STATEMENT

for the New York State Department of Environmental Conservation (DEC) State Pollutant Discharge Elimination System Permit for Stormwater Discharges from Construction Activity (GP-0-15-002)

As per *Part III.A.6* on page 13 of *GP-0-15-002* (effective January 29, 2015):

'Prior to the *commencement of construction activity*, the *owner or operator* must identify the contractor(s) and subcontractor(s) that will be responsible for installing, constructing, repairing, replacing, inspecting and maintaining the erosion and sediment control practices included in the SWPPP; and the contractor(s) and subcontractor(s) that will be responsible for constructing the post-construction stormwater management practices included in the SWPPP. The *owner or operator* shall have each of the contractors and sub-contractors identify at least one person from their company that will be responsible for implementation of the SWPPP. This person shall be known as the *trained contractor.* The *owner or operator* shall ensure that at least one *trained contractor* is on site on a daily basis when soil disturbance activities are being performed.'

The *owner or operator* shall have each contractor and subcontractor involved in soil disturbance sign a copy of the following certification statement before they commence any *construction activity*:

_____	NYR _____	_____
Name of Construction Site	*DEC Permit ID*	*Municipality (MS4)*

"I hereby certify that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the qualified inspector during a site inspection. I also understand that the owner or operator must comply with the terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater discharges from construction activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Responsible Corporate Officer/Partner Signature	Date
Name of above Signatory	Name of Company
Title of above Signatory	Mailing Address
Telephone of Company	City, State, and Zip

Identify the specific elements of the SWPPP the contractor or subcontractor is responsible for:

_____
_____
_____
_____

***'TRAINED CONTRACTOR'* FOR THE CERTIFIED CONTRACTOR OR SUBCONTRACTOR**

_____	_____	_____
Name of Trained Employee	*Title of Trained Employee*	*NYSDEC SWT #*

A copy of this signed contractor certification statement must be maintained at the SWPPP on site

EAGLE BAY

TOWN OF STONY POINT
ROCKLAND COUNTY
NEW YORK

APPENDIX-A

CONSTRUCTION SITE LOGBOOK

BY

ATZL, NASHER & ZIGLER P.C.
ENGINEERS-SURVEYORS-PLANNERS
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NY STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM
FOR CONSTRUCTION ACTIVITIES

SWPPP CONSTRUCTION SITE LOG BOOK

For

EAGLE BAY

Town of Stony Point
Rockland County, New York

ATZL, NASHER & ZIGLER P.C.
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Table of Contents

I. Pre-Construction Meeting Documents.

a. Preamble to Site Assessment and Inspections

b. Operator's Certification

c. Qualified Professional's Credentials & Certification

d. Pre-Construction Site Assessment Checklist

II. Construction Duration Inspections

a. Directions

b. Modification to the SWPPP

III. Monthly Summary Reports

IV. Monitoring, Reporting, and Three-Month Status Reports

a. Operator's Compliance Response Format

Properly completing forms such as those contained in this document meet the inspection requirement of NYSDEC SPDES GP for Construction Activities. Completed forms shall be kept on site at all times and made available to authorities upon request.

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I. PRE-CONSTRUCTION MEETING DOCUMENTS

Project Name EAGLE BAY
Permit No. _____ **Date of Authorization** _____
Name of Operator _____
Prime Contractor _____

a. Preamble to Site Assessment and Inspections -the following information to be read by all person's involved in the construction of stormwater related activities:

The Operator agrees to have a qualified professional[1] conduct an assessment of the site prior to the commencement of construction[2] and certify in this inspection report that the appropriate erosion and sediment controls described in the SWPPP have been adequately installed or implemented to ensure overall preparedness of the site for the commencement of construction.

Prior to the commencement of construction, the Operator shall certify in this site logbook that the SWPPP has been prepared in accordance with the State's standards and meets all Federal, State and local erosion and sediment control requirements.

When construction starts, site inspections shall be conducted by the qualified professional at least every 7 calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater (Construction Duration Inspections). The Operator shall maintain a record of all inspection reports in this site log book. The site log book shall be maintained on site and be made available to the permitting authorities upon request. The Operator shall post at the site, in a publicly accessible location, a summary of the site inspection activities on a monthly basis (Monthly Summary Report).

The operator shall also prepare a written summary of compliance with this general permit at a minimum frequency of every three months (Operator's Compliance Response Form), while coverage exists. The summary should address the status of achieving each component of the SWPPP.

Prior to filing the Notice of Termination or the end of permit term, the Operator shall have a qualified professional perform a final site inspection. The qualified professional shall certify that the site has undergone final stabilization[3] using either vegetative or structural stabilization methods and that all temporary erosion and sediment controls (such as silt fencing) not needed for long-term erosion control have been removed. In addition, the Operator must identify and certify that all permanent structures described in the SWPPP have been constructed and provide the owner(s) with an operation and maintenance plan that ensures the structure(s) continuously functions as designed.

1 "Qualified Professional means a person knowledgeable in the principles and practice of erosion and sediment controls, such as a Certified Professional in Erosion and Sediment Control (CPESC), soil scientist, licensed engineer or someone working under the direction and supervision of a licensed engineer (person must have experience in the principles and practices of erosion and sediment control).

2 "Commencement of construction" means the initial removal of vegetation and disturbance of soils associated with clearing, grading or excavating activities or other construction activities.

3 "Final stabilization" means that all soil-disturbing activities at the site have been completed and a uniform, perennial vegetative cover with a density of eighty (80) percent has been established or equivalent stabilization measures (such as the use of mulches or geotextiles) have been employed on all unpaved areas and areas not covered by permanent structures.

b. Operators Certification

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. Further, I hereby certify that the SWPPP meets all Federal, State, and local erosion and sediment control requirements. I am aware that false statements made herein are punishable as a class A misdemeanor pursuant to Section 210.45 of the Penal Law. "

Name (please print):_____

Title _____**Date:**_____

Address: _____

Phone: _____ **Email:**_____

Signature:_____

c. Qualified Professional's Credentials & Certification

"I hereby certify that I meet the criteria set forth in the General Permit to conduct site inspections for this project and that the appropriate erosion and sediment controls described in the SWPPP and as described in the following Pre-construction Site Assessment Checklist have been adequately installed or implemented, ensuring the overall preparedness of this site for the commencement of construction."

Name (please print):_____

Title _____**Date:**_____

Address: _____

Phone: _____ **Email:**_____

Signature:_____

d. Pre-construction Site Assessment Checklist (NOTE: Provide comments below as necessary)

1. Notice of Intent, SWPPP, and Contractors Certification:

Yes No NA

[ ] [ ] [ ] Has a Notice of Intent been filed with the NYS Department of Conservation?
[ ] [ ] [ ] Is the SWPPP on-site? Where?_____
[ ] [ ] [ ] Is the Plan current? What is the latest revision date?_____
[ ] [ ] [ ] Is a copy of the NOI (with brief description) onsite? Where?_____
[ ] [ ] [ ] Have all contractors involved with stormwater related activities signed a contractor's certification?

Pre-construction Site Assessment Checklist (continued)

2. Resource Protection

Yes No NA

[ ] [ ] [ ] Are construction limits clearly flagged or fenced?

[ ] [ ] [ ] Important trees and associated rooting zones, on-site septic system absorption fields, existing vegetated areas suitable for filter strips, especially in perimeter areas, have been flagged for protection.

[ ] [ ] [ ] Creek crossings installed prior to land-disturbing activity, including clearing and blasting.

3. Surface Water Protection

Yes No NA

[ ] [ ] [ ] Clean stormwater runoff has been diverted from areas to be disturbed.

[ ] [ ] [ ] Bodies of water located either on site or in the vicinity of the site have been identified and protected.

[ ] [ ] [ ] Appropriate practices to protect on-site or downstream surface water are installed.

[ ] [ ] [ ] Are clearing and grading operations divided into areas <5 acres?

4. Stabilized Construction Entrance

Yes No NA

[ ] [ ] [ ] A temporary construction entrance to capture mud and debris from construction vehicles before they enter the public highway has been installed.

[ ] [ ] [ ] Other access areas (entrances, construction routes, equipment parking areas) are stabilized immediately as work takes place with gravel or other cover.

[ ] [ ] [ ] Sediment tracked onto public streets is removed or cleaned on a regular basis.

5. Perimeter Sediment Controls

Yes No NA

[ ] [ ] [ ] Silt fence material and installation comply with the standard drawing and specifications.

[ ] [ ] [ ] Silt fences are installed at appropriate spacing intervals

[ ] [ ] [ ] Sediment/detention basin was installed as first land disturbing activity.

[ ] [ ] [ ] Sediment traps and barriers are installed.

6. Pollution Prevention for Waste and Hazardous Materials

Yes No NA

[ ] [ ] [ ] The Operator or designated representative has been assigned to implement the spill prevention avoidance and response plan.

[ ] [ ] [ ] The plan is contained in the SWPPP on page _____

[ ] [ ] [ ] Appropriate materials to control spills are onsite. Where? _____

II. CONSTRUCTION DURATION INSPECTIONS

a. Directions:
Inspection Forms will be filled out during the entire construction phase of the project.
Required Elements:

(1) On a site map, indicate the extent of all disturbed site areas and drainage pathways. Indicate site areas that are expected to undergo initial disturbance or significant site work within the next 14-day period;

(2) Indicate on a site map all areas of the site that have undergone temporary or permanent stabilization;

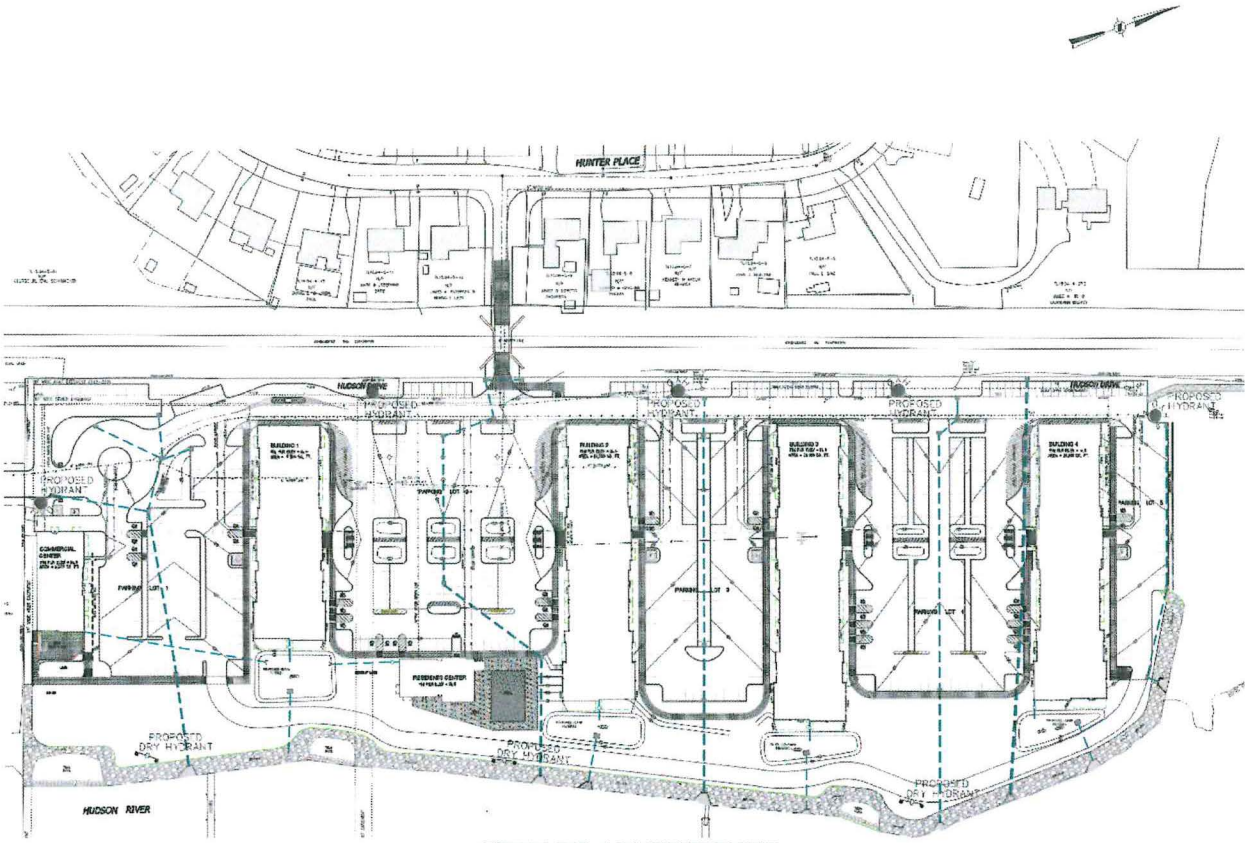
(3) Indicate all disturbed site areas that have not undergone active site work during the previous 14-day period;

Inspect all sediment control practices and record the approximate degree of sediment accumulation as a percentage of sediment storage volume (for example, 10 percent, 20 percent, 50 percent);

(5) Inspect all erosion and sediment control practices and record all maintenance requirements such as verifying the integrity of barrier or diversion systems (earthen berms or silt fencing) and containment systems (sediment basins and sediment traps). Identify any evidence of rill or gully erosion occurring on slopes and any loss of stabilizing vegetation or seeding/mulching. Document any excessive deposition of sediment or ponding water along barrier or diversion systems. Record the depth of sediment within containment structures, any erosion near outlet and overflow structures, and verify the ability of rock filters around perforated riser pipes to pass water; and

(6) Immediately report to the Operator any deficiencies that are identified with the implementation of the SWPPP.

CONSTRUCTION DURATION INSPECTIONS



SITE PLAN/SKETCH

Inspector (print name)	**Date of Inspection**
Qualified Professional (print name)	**Qualified Professional Signature**

The above signed acknowledges that, to the best of his/her knowledge, all information provided on the forms is accurate and complete.

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CONSTRUCTION DURATION INSPECTIONS

Maintaining Water Quality

Yes No NA

[ ] [ ] [ ] Is there an increase in turbidity causing a substantial visible contrast to natural conditions?
[ ] [ ] [ ] Is there residue from oil and floating substances, visible oil film, or globules or grease?
[ ] [ ] [ ] All disturbance is within the limits of the approved plans.
[ ] [ ] [ ] Have receiving lake/bay, stream, and/or wetland been impacted by silt from project?

Housekeeping

1. General Site Conditions

Yes No NA

[ ] [ ] [ ] Is construction site litter and debris appropriately managed?
[ ] [ ] [ ] Are facilities and equipment necessary for implementation of erosion and sediment control in working order and/or properly maintained?
[ ] [ ] [ ] Is construction impacting the adjacent property?
[ ] [ ] [ ] Is dust adequately controlled?

2. Temporary Stream Crossing

Yes No NA

[ ] [ ] [ ] Maximum diameter pipes necessary to span creek without dredging are installed.
[ ] [ ] [ ] Installed non-woven geotextile fabric beneath approaches.
[ ] [ ] [ ] Is fill composed of aggregate (no earth or soil)?
[ ] [ ] [ ] Rock on approaches is clean enough to remove mud from vehicles & prevent sediment from entering stream during high flow.

Runoff Control Practices

1. Excavation Dewatering

Yes No NA

[ ] [ ] [ ] Upstream and downstream berms (sandbags, inflatable dams, etc.) are installed per plan.
[ ] [ ] [ ] Clean water from upstream pool is being pumped to the downstream pool.
[ ] [ ] [ ] Sediment laden water from work area is being discharged to a silt-trapping device.
[ ] [ ] [ ] Constructed upstream berm with one-foot minimum freeboard.

2. Level Spreader

Yes No NA

[ ] [ ] [ ] Installed per plan.
[ ] [ ] [ ] Constructed on undisturbed soil, not on fill, receiving only clear, non-sediment laden flow.
[ ] [ ] [ ] Flow sheets out of level spreader without erosion on downstream edge.

3. Interceptor Dikes and Swales

Yes No NA

[ ] [ ] [ ] Installed per plan with minimum side slopes 2H:1V or flatter.
[ ] [ ] [ ] Stabilized by geotextile fabric, seed, or mulch with no erosion occurring.
[ ] [ ] [ ] Sediment-laden runoff directed to sediment trapping structure

4. Stone Check Dam

Yes No NA

[ ] [ ] [ ] Is channel stable? (flow is not eroding soil underneath or around the structure).

[ ] [ ] [ ] Check is in good condition (rocks in place and no permanent pools behind the structure).

[ ] [ ] [ ] Has accumulated sediment been removed?.

5. Rock Outlet Protection

Yes No NA

[ ] [ ] [ ] Installed per plan.

[ ] [ ] [ ] Installed concurrently with pipe installation.

Soil Stabilization

1. Topsoil and Spoil Stockpiles

Yes No NA

[ ] [ ] [ ] Stockpiles are stabilized with vegetation and/or mulch.

[ ] [ ] [ ] Sediment control is installed at the toe of the slope.

2. Revegetation

Yes No NA

[ ] [ ] [ ] Temporary seedings and mulch have been applied to idle areas.

[ ] [ ] [ ] 4 inches minimum of topsoil has been applied under permanent seedings

Sediment Control

1. Stabilized Construction Entrance

Yes No NA

[ ] [ ] [ ] Stone is clean enough to effectively remove mud from vehicles.

[ ] [ ] [ ] Installed per standards and specifications?

[ ] [ ] [ ] Does all traffic use the stabilized entrance to enter and leave site?

[ ] [ ] [ ] Is adequate drainage provided to prevent ponding at entrance?

2. Silt Fence

Yes No NA

[ ] [ ] [ ] Installed on Contour, 10 feet from toe of slope (not across conveyance channels).

[ ] [ ] [ ] Joints constructed by wrapping the two ends together for continuous support.

[ ] [ ] [ ] Fabric buried 6 inches minimum.

[ ] [ ] [ ] Posts are stable, fabric is tight and without rips or frayed areas.

Sediment accumulation is ___% of design capacity.

3. Storm Drain Inlet Protection (Use for Stone & Block; Filter Fabric; Curb; or, Excavated practices)

Yes No NA

[ ] [ ] [ ] Installed concrete blocks lengthwise so open ends face outward, not upward.

[ ] [ ] [ ] Placed wire screen between No. 3 crushed stone and concrete blocks.

[ ] [ ] [ ] Drainage area is 1acre or less.

[ ] [ ] [ ] Excavated area is 900 cubic feet.
[ ] [ ] [ ] Excavated side slopes should be 2:1.
[ ] [ ] [ ] 2" x 4" frame is constructed and structurally sound.
[ ] [ ] [ ] Posts 3-foot maximum spacing between posts.
[ ] [ ] [ ] Fabric is embedded 1 to 1.5 feet below ground and secured to frame/posts with staples at max 8-inch spacing.
[ ] [ ] [ ] Posts are stable, fabric is tight and without rips or frayed areas.
Sediment accumulation ___% of design capacity.

4. Temporary Sediment Trap
Yes No NA
[ ] [ ] [ ] Outlet structure is constructed per the approved plan or drawing.
[ ] [ ] [ ] Geotextile fabric has been placed beneath rock fill.
Sediment accumulation is ___% of design capacity.

5. Temporary Sediment Basin
Yes No NA
[ ] [ ] [ ] Basin and outlet structure constructed per the approved plan.
[ ] [ ] [ ] Basin side slopes are stabilized with seed/mulch.
[ ] [ ] [ ] Drainage structure flushed and basin surface restored upon removal of sediment basin facility.
Sediment accumulation is ___% of design capacity.

Note: Not all erosion and sediment control practices are included in this listing. Add additional pages to this list as required by site specific design.
Construction inspection checklists for post-development stormwater management practices can be found in Appendix F of the New York Stormwater Management Design Manual.

CONSTRUCTION DURATION INSPECTIONS

b. Modifications to the SWPPP (To be completed as described below)

The Operator shall amend the SWPPP whenever:

1. There is a significant change in design, construction, operation, or maintenance which may have a significant effect on the potential for the discharge of pollutants to the waters of the United States and which has not otherwise been addressed in the SWPPP; or
2. The SWPPP proves to be ineffective in:
   a. Eliminating or significantly minimizing pollutants from sources identified in the SWPPP and as required by this permit; or
   b. Achieving the general objectives of controlling pollutants in stormwater discharges from permitted construction activity; and
3. Additionally, the SWPPP shall be amended to identify any new contractor or subcontractor that will implement any measure of the SWPPP.

Modification & Reason:

III. Monthly Summary of Site Inspection Activities

Name of Permitted Facility:	Today's Date:	Reporting Month:
Location:	Permit Identification #:	
Name and Telephone Number of Site Inspector:		

Date of Inspection	Regular / Rainfall based Inspection	Name of Inspector	Items of Concern

Owner/Operator Certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that false statements made herein are punishable as a class A misdemeanor pursuant to Section 210.45 of the Penal Law."

Signature of Permittee or Duly Authorized Representative

Name of Permittee or Duly Authorized Representative date

Duly authorized representatives must have written authorization, submitted to DEC, to sign any permit documents.

EAGLE BAY

TOWN OF STONY POINT
ROCKLAND COUNTY
NEW YORK

APPENDIX-B

CONSTRUCTION INSPECTION CHECKLISTS

BY

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STORMWATER MANAGEMENT CONSTRUCTION INSPECTION CHECKLIST FORM

Project: **EAGLE BAY**
Location: Town of Stony Point, Rockland County, NY

Site Status: _____

Date of Inspection: _____

Time of Inspection: _____

Weather Conditions (including recent rainfall): _____

Inspector's Name: _____

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
1. Pre-Construction/Materials and Equipment		
Pre-construction meeting		
Pipe and appurtenances on-site prior to construction and dimensions checked		
1. Material (including protective coating, if specified)		
2. Diameter		
3. Dimensions of metal riser or pre-cast concrete outlet structure		
4. Required dimensions between water control structures (orifices, weirs, etc.) are in accordance with approved plans		
5. Barrel stub for prefabricated pipe structures at proper angle for design barrel slope		
6. Number and dimensions of prefabricated anti-seep collars		
7. Watertight connectors and gaskets		
8. Outlet drain valve		
Project benchmark near pond site		
Equipment for temporary de-watering		
2. Subgrade Preparation		
Area beneath embankment stripped of all Vegetation, topsoil, and organic matter		
3. Pipe Spillway Installation		
Method of installation detailed on plans		
A. Bed preparation		
Installation trench excavated with specified side slopes		

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
Stable, uniform, dry subgrade of relatively impervious material (If subgrade is wet, contractor shall have defined steps before proceeding with installation)		
Invert at proper elevation and grade		
B. Pipe placement		
Metal / plastic pipe		
1. Watertight connectors and gaskets properly installed		
2. Anti-seep collars properly spaced and having watertight connections to pipe		
3. Backfill placed and tamped by hand under "haunches" of pipe		
4. Remaining backfill placed in max. 8 inch lifts using small power tamping equipment until 2 feet cover over pipe is reached		
3. Pipe Spillway Installation		
Concrete pipe		
1. Pipe set on blocks or concrete slab for pouring of low cradle		
2. Pipe installed with rubber gasket joints with no spalling in gasket interface area		
3. Excavation for lower half of anti-seep collar(s) with reinforcing steel set		
4. Entire area where anti-seep collar(s) will come in contact with pipe coated with mastic or other approved waterproof sealant		
5. Low cradle and bottom half of anti-seep collar installed as monolithic pour and of an approved mix		
6. Upper half of anti-seep collar(s) formed with reinforcing steel set		
7. Concrete for collar of an approved mix and vibrated into place (protected from freezing while curing, if necessary)		
8. Forms stripped and collar inspected for honeycomb prior to backfilling. Parge if necessary.		
C. Backfilling		
Fill placed in maximum 8 inch lifts		
Backfill taken minimum 2 feet above top of anti-seep collar elevation before traversing with heavy equipment		
4. Riser / Outlet Structure Installation		
Riser located within embankment		
A. Metal riser		
Riser base excavated or formed on stable		

subgrade to design dimensions		
CONSTRUCTION SEQUENCE	**SATISFACTORY/ UNSATISFACTORY**	**COMMENTS**
Set on blocks to design elevations and plumbed		
Reinforcing bars placed at right angles and projecting into sides of riser		
Concrete poured so as to fill inside of riser to invert of barrel		
B. Pre-cast concrete structure		
Dry and stable subgrade		
Riser base set to design elevation		
If more than one section, no spalling in gasket interface area; gasket or approved caulking material placed securely		
Watertight and structurally sound collar or Gasket joint where structure connects to pipe spillway		
C. Poured concrete structure		
Footing excavated or formed on stable Subgrade, to design dimensions with reinforcing steel set		
Structure formed to design dimensions, with reinforcing steel set as per plan		
Concrete of an approved mix and vibrated into place (protected from freezing while curing, if necessary)		
Forms stripped & inspected for "honeycomb" prior to backfilling; parge if necessary		
5. Embankment Construction		
Fill material		
Compaction		
Embankment		
1. Fill placed in specified lifts and compacted with appropriate equipment		
2. Constructed to design cross-section, side slopes and top width		
3. Constructed to design elevation plus allowance for settlement		
6. Impounded Area Construction		
Excavated / graded to design contours and side slopes		
Inlet pipes have adequate outfall protection		
Forebay(s)		
Pond benches		
7. Earth Emergency Spillway Construction		
Spillway located in cut or structurally stabilized with riprap, gabions, concrete, etc.		
Excavated to proper cross-section, side slopes and bottom width		
Entrance channel, crest, and exit channel		

Constructed to design grades and elevations		
CONSTRUCTION SEQUENCE	**SATISFACTORY/ UNSATISFACTORY**	**COMMENTS**
8. Outlet Protection		
A. End section		
Securely in place and properly backfilled		
B. Endwall		
Footing excavated or formed on stable Subgrade, to design dimensions and reinforcing steel set, if specified	**SATISFACTORY/ UNSATISFACTORY**	**COMMENTS**
Endwall formed to design dimensions with Reinforcing steel set as per plan		
Concrete of an approved mix and vibrated into place (protected from freezing, if necessary)		
Forms stripped and structure inspected for "honeycomb" prior to backfilling; parge if necessary		
C. Riprap apron / channel		
Apron / channel excavated to design cross-Section with proper transition to existing ground		
Filter fabric in place		
Stone sized as per plan and uniformly place at the thickness specified		
9. Vegetative Stabilization		
Approved seed mixture or sod		
Proper surface preparation and required soil Amendments		
Excelsior mat or other stabilization, as per plan		
10. Miscellaneous		
Drain for ponds having a permanent pool		
Trash rack / anti-vortex device secured to outlet structure		
Trash protection for low flow pipes, orifices, etc.		
Fencing (when required)		
Access road		
Set aside for clean-out maintenance		
11. Stormwater Wetlands		
Adequate water balance		
Variety of depth zones present		
Approved pondscaping plan in place reinforcement budget for additional plantings		
Plants and materials ordered 6 months prior to construction		
Construction planned to allow for adequate planting and establishment of plant community (April-June planting window)		
Wetland buffer area preserved to maximum extent possible		

Comments:

Actions to be Taken:

EAGLE BAY

TOWN OF STONY POINT
ROCKLAND COUNTY
NEW YORK

APPENDIX-C

SPILL CONTROL AND PREVENTION LOG

BY

ATZL, NASHER & ZIGLER P.C.
ENGINEERS-SURVEYORS-PLANNERS
234 NORTH MAIN STREET
NEW CITY, NY 10956
TEL: (845) 634-4694
FAX: (845) 634-5543
E-MAIL: rnasher@anzny.com

SPILL CONTROL & PREVENTION LOG
EAGLE BAY
Town of Stony Point
Rockland County, New York

Date of Spill	Material Spilled	Spill Location	Cause	Cleanup	Agency Reported (Toxic/Hazardous)	Reoccurance Prevention Measure

EAGLE BAY

TOWN OF STONY POINT
ROCKLAND COUNTY
NEW YORK

APPENDIX-D

MAINTENANCE AGREEMENT

BY

ATZL, NASHER & ZIGLER P.C.
ENGINEERS-SURVEYORS-PLANNERS
234 NORTH MAIN STREET
NEW CITY, NY 10956
TEL: (845) 634-4694
FAX: (845) 634-5543
E-MAIL: rnasher@anzny.com

STORMWATER CONTROL FACILITY MAINTENANCE AGREEMENT
RE: EAGLE BAY
(TAX MAP DESIGNATION: 15.04-6-3, 4 & 6)

Whereas, the Town of Stony point ("Town") and Eagle Bay ("Facility Owner") want to enter into an agreement to provide for the long term maintenance and continuation of stormwater control measures approved by the Town for the above named project, and

Whereas, the Town and the Facility Owner desire that the stormwater control measures be built in accordance with the approved project plans and thereafter be maintained, cleaned, repaired, replaced and continued in perpetuity in order to ensure optimum performance of the components. Therefore, the Town and the Facility Owner agree as follows:

1. This agreement binds the Facility Owner, its successors and assigns, to the maintenance provisions depicted in the approved project plans which are attached as Schedule A-1 of this agreement.

2. The Facility Owner shall maintain, clean, repair, replace and continue the Stormwater control measures as listed in Schedule A-2 as necessary to ensure optimum performance of the measures to design specifications. The stormwater control measures shall include, but shall not be limited to, the following: drop inlets, pipes, culverts, and Bio-Filter systems, but only to the extent that the same are shown on Schedule A-2.

3. The Facility Owner shall be responsible for all expenses related to the maintenance of the stormwater control measures and shall establish a means for the collection and distribution of expenses among parties for any commonly owned facilities.

4. The Facility Owner shall provide for the annual inspection of the stormwater control measures, in perpetuity, to determine the condition and integrity of the measures. A Professional Engineer licensed by the State of New York shall perform such inspection. The inspecting engineer shall prepare and submit to the Town within 30 days of the inspection, a written report of the findings including recommendations for those actions necessary for the continuation of the Stormwater control measures.

5. The Facility Owner shall not authorize, undertake or permit alteration, abandonment, modification or discontinuation of the Stormwater control measures except in accordance with written approval of the Town.

6. The Facility Owner shall undertake all necessary repairs and replacement of the stormwater control measures at the direction of the Town or in accordance with the recommendations of the inspecting engineer.

7. The Facility Owner shall provide to the Town, prior to Chairperson's endorsement, a security for the maintenance and continuation of the stormwater control measures.

8. This agreement shall be recorded in the Office of the County Clerk, County of Rockland. In the

event that the facility is a commercial or residential condominium, this agreement shall be included in any offering plan or prospectus.

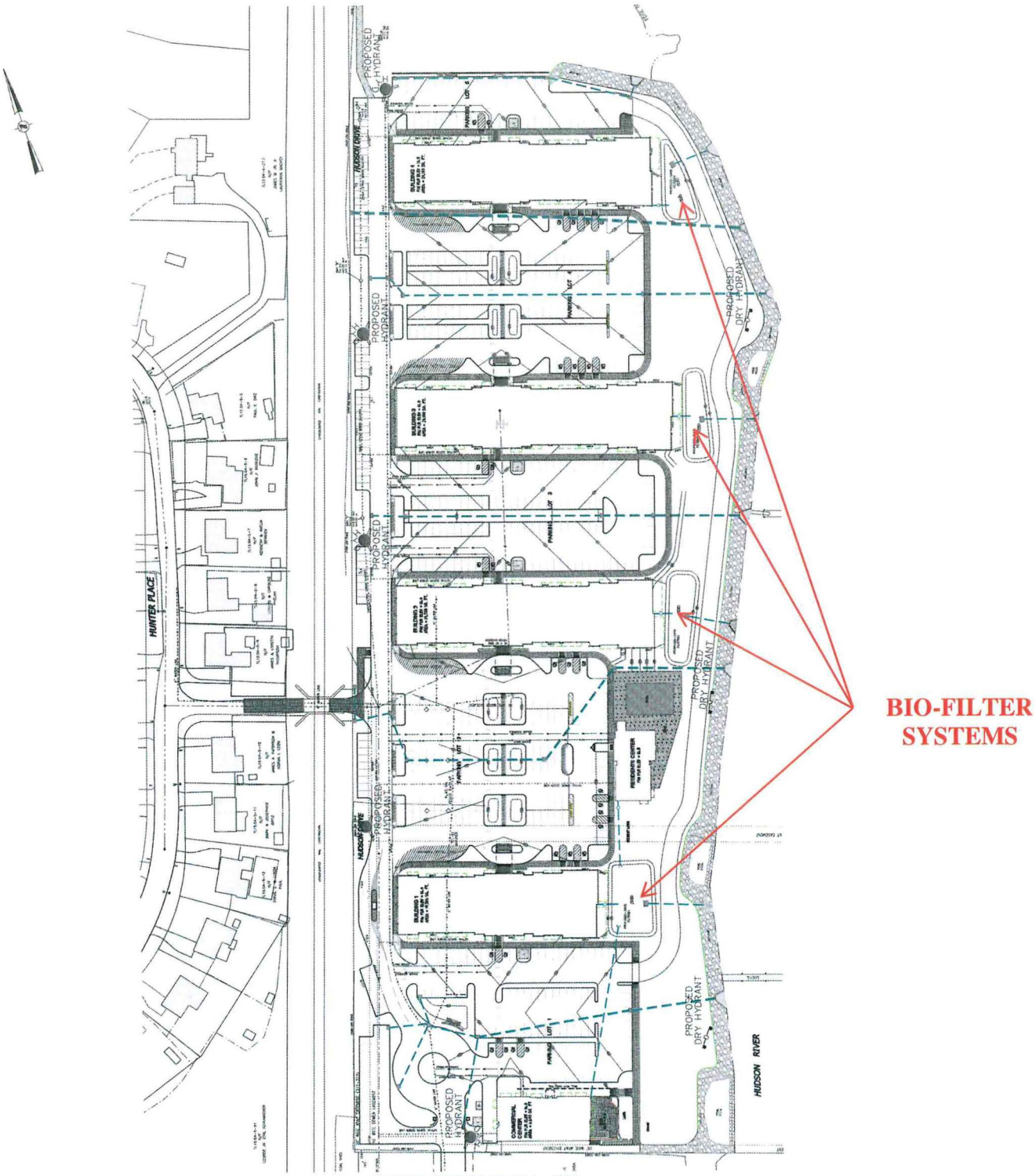
9. If ever the Town determines that the Facility Owner has failed to construct or maintain the stormwater control measures in accordance with the project plan or has failed to undertake corrective action specified by the Town or by the inspecting engineer, the Town is authorized to undertake such steps as reasonably necessary for the preservation, continuation or maintenance of the stormwater control measures and to affix the expenses thereof as a tax lien against the property. By virtue of this agreement, the facility owner hereby grants on behalf of itself, its successors and/or assigns an irrevocable right of entry to the Town, its employees, contractors, vendees and/or officers to perform the corrective measures referred to in this paragraph and agrees to hold them harmless, defend and indemnify them for any damages, except gross negligence.

10. This agreement is effective as of the date of execution of the Stormwater Control Facility Maintenance Agreement.

Town of Stony Point	Eagle Bay
By: _____	By: _____
Jim Monaghan, Supervisor	Eli Herskowitz, Facility Owner

SCHEDULE "A-1"

STORMWATER MANAGEMENT FACILITIES
LAYOUT & LOCATION



SCHEDULE "A-2"

STORMWATER MANAGEMENT SYSTEM
INSPECTION AND MAINTENANCE SCHEDULE

Stormwater Management Structures:

- Stormwater Piping
- Catch Basins
- Bio-Filters

Inspections Schedule:

- Stormwater Pipes & Catch Basins
  - Biannual, after major storms: Check for debris at inlets, outlets, and cleanouts.

- Bio-Filters:
  - Annual & after storms: Check condition of embankment
  - Annual: Inspect riser
  - Monthly: Inspect permanent pool for pollution, debris, and other undesirables.
  - Monthly: Inspect pretreatment forebay.
  - Monthly: Check that dry areas are adequately vegetated and clear of trash and sediment.

Maintenance Schedule:

- Stormwater Piping: Must be cleaned as found necessary by inspection.

- Catch Basins: Must be cleaned as found necessary by inspection.

- Bio-Filters:
  - Clean basin of trash and debris
  - Clean out pretreatment pea gravel of trash and debris
  - Mow when the grass exceeds or equal to 6" of height

State of New York, County of Rockland ss.:

On _____, before me, the undersigned, personally appeared Eli Herskowitz personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

_____
Notary Public

State of New York, County of _____ ss.:

On _____, before me, the undersigned, personally appeared Jim Monaghan personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

_____
Notary Public

EAGLE BAY

TOWN OF STONY POINT
ROCKLAND COUNTY
NEW YORK

APPENDIX-E

CONSTRUCTION PLANS
IN
(11"X17") FORMAT

BY

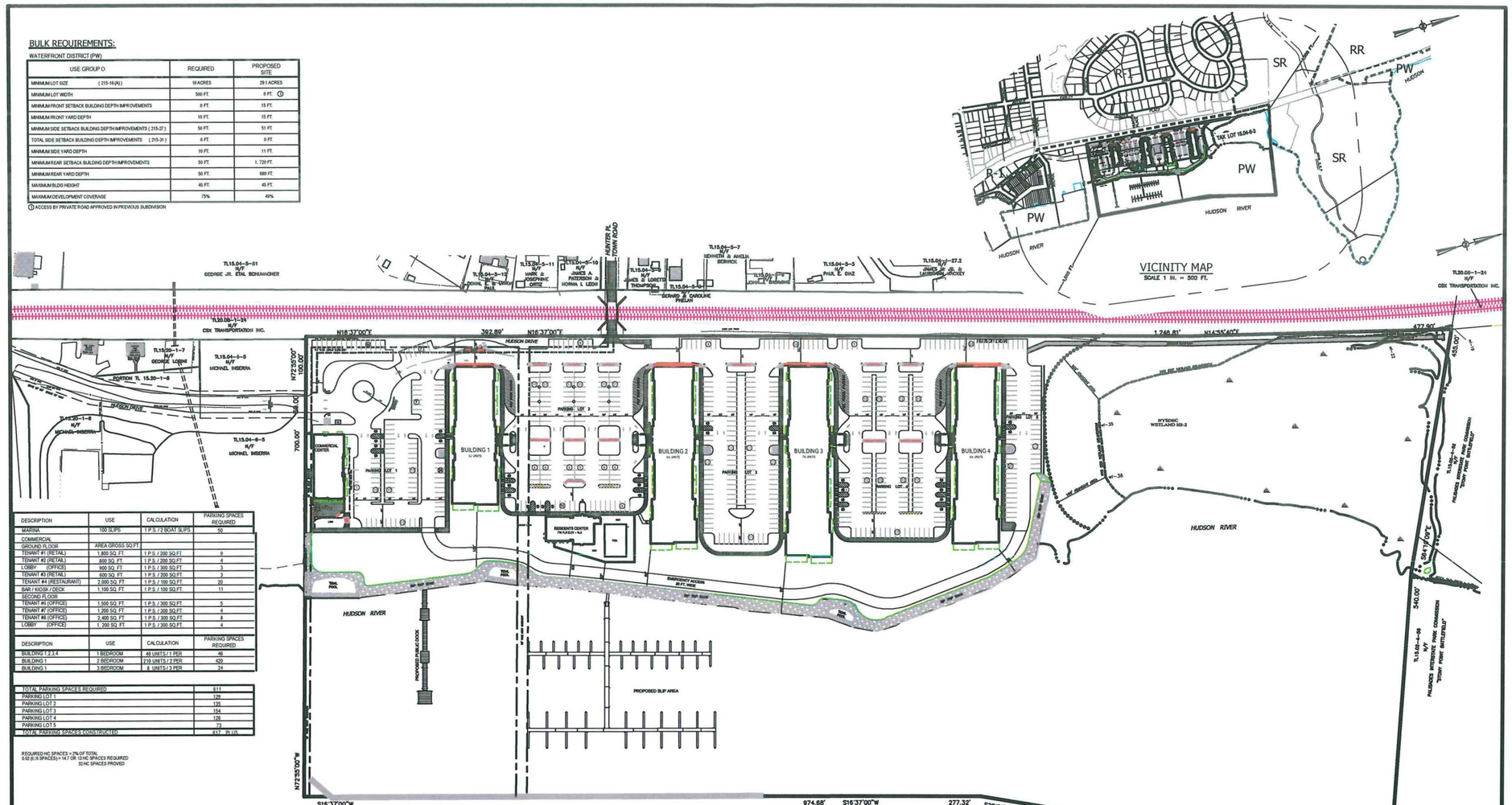
ATZL, NASHER & ZIGLER P.C.
ENGINEERS-SURVEYORS-PLANNERS
234 NORTH MAIN STREET
NEW CITY, NY 10956
TEL: (845) 634-4694
FAX: (845) 634-5543
E-MAIL: rnasher@anzny.com

BULK REQUIREMENTS:

WATERFRONT DISTRICT (PW)

USE GROUP O	REQUIRED	PROPOSED SITE
MINIMUM LOT SIZE (215-16 (A))	10 ACRES	29.1 ACRES
MINIMUM LOT WIDTH	500 FT.	0 FT. ①
MINIMUM FRONT SETBACK BUILDING DEPTH IMPROVEMENTS	0 FT.	15 FT.
MINIMUM FRONT YARD DEPTH	10 FT.	15 FT.
MINIMUM SIDE SETBACK BUILDING DEPTH IMPROVEMENTS (215-27)	50 FT.	51 FT.
TOTAL SIDE SETBACK BUILDING DEPTH IMPROVEMENTS (215-31)	0 FT.	0 FT.
MINIMUM SIDE YARD DEPTH	10 FT.	11 FT.
MINIMUM REAR SETBACK BUILDING DEPTH IMPROVEMENTS	50 FT.	1, 720 FT.
MINIMUM REAR YARD DEPTH	50 FT.	680 FT.
MAXIMUM BLDG HEIGHT	45 FT.	45 FT.
MAXIMUM DEVELOPMENT COVERAGE	75%	49%

① ACCESS BY PRIVATE ROAD APPROVED IN PREVIOUS SUBDIVISION



DESCRIPTION	USE	CALCULATION	PARKING SPACES REQUIRED
MARINA	100 SLIPS	1 P.S. / 2 BOAT SLIPS	50
COMMERCIAL			
GROUND FLOOR	AREA GROSS SQ.FT.		
TENANT #1 (RETAIL)	1,800 SQ. FT.	1 P.S. / 200 SQ.FT.	9
TENANT #2 (RETAIL)	800 SQ. FT.	1 P.S. / 200 SQ.FT.	4
LOBBY (OFFICE)	600 SQ. FT.	1 P.S. / 200 SQ.FT.	3
TENANT #3 (RETAIL)	600 SQ. FT.	1 P.S. / 200 SQ.FT.	3
TENANT #4 (RESTAURANT)	2,000 SQ. FT.	1 P.S. / 100 SQ.FT.	20
BAR / KIOSK / DECK	1,100 SQ. FT.	1 P.S. / 100 SQ.FT.	11
SECOND FLOOR			
TENANT #5 (OFFICE)	1,000 SQ. FT.	1 P.S. / 300 SQ.FT.	5
TENANT #7 (OFFICE)	1,200 SQ. FT.	1 P.S. / 300 SQ.FT.	4
TENANT #6 (OFFICE)	2,400 SQ. FT.	1 P.S. / 300 SQ.FT.	8
LOBBY (OFFICE)	1, 200 SQ. FT.	1 P.S. / 300 SQ.FT.	4

DESCRIPTION	USE	CALCULATION	PARKING SPACES REQUIRED
BUILDING 1 2,3,4	1 BEDROOM	46 UNITS / 1 PER	46
BUILDING 1	2 BEDROOM	210 UNITS / 2 PER	420
BUILDING 1	3 BEDROOM	8 UNITS / 3 PER	24

TOTAL PARKING SPACES REQUIRED	611
PARKING LOT 1	129
PARKING LOT 2	135
PARKING LOT 3	154
PARKING LOT 4	126
PARKING LOT 5	73
TOTAL PARKING SPACES CONSTRUCTED	617 - PB 125

REQUIRED HC SPACES = 2% OF TOTAL
612 (E.S SPACES) = 14.7 OR 15 HC SPACES REQUIRED
32 HC SPACES PROVED

APPLICANT:

BREAKERS ON THE HUDSON, LLC
5 EASTVIEW ROAD
MONSEY, NEW YORK 10512

OWNER:

		SURVEY			ZONING CODE
TAX LOT 15.04-4-3	BREAKERS ON THE HUDSON, LLC	AREA OF WETLAND	=	3.2 ACS.	1.6 ACS.
	5 EASTVIEW ROAD	AREA OF LAND	=	9.9 ACS.	9.9 ACS.
	MONSEY, NEW YORK 10512	AREA OF WATER	=	12.4 ACS.	6.2 ACS.
		AREA	=	25.5 ACS.	17.7 ACS.
TAX LOT 15.04-4-4	BREAKERS ON THE HUDSON, LLC	AREA OF LAND	=	6.1 ACS.	6.1 ACS.
	5 EASTVIEW ROAD	AREA OF WATER	=	8.2 ACS.	4.1 ACS.
	MONSEY, NEW YORK 10512	AREA	=	14.3 ACS.	10.2 ACS.
TAX LOT 15.04-4-6	BREAKERS ON THE HUDSON, LLC	AREA OF LAND	=	1.2 ACS.	1.2 ACS.
	5 EASTVIEW ROAD	AREA OF WATER	=	0.0 ACS.	0.0 ACS.
	MONSEY, NEW YORK 10512	AREA	=	1.2 ACS.	1.2 ACS.
		TOTAL AREA		41.0 ACS.	29.1 ACS.

DEVELOPMENT DETAILS

TOTAL ZONING AREA	29.1 AC
TOTAL UNITS	264
TOTAL UNITS PER ACRE	9.1

GENERAL NOTES:

1. THIS PLAT DOES NOT CONFLICT WITH THE COUNTY OFFICIAL MAP, AND HAS BEEN APPROVED IN THE MANNER SPECIFIED IN SECTION 239 L & M OF THE GENERAL MUNICIPAL LAW.
2. AT LEAST ONE (1) WEEK PRIOR TO THE COMMENCEMENT OF ANY WORK INCLUDING THE INSTALLATION OF EROSION CONTROL DEVICES OR REMOVAL OF TREES AND VEGETATION, A PRE CONSTRUCTION MEETING MUST BE HELD WITH THE TOWN OF HAVERSTRAW BUILDING DEPARTMENT, SUPERINTENDENT OF HIGHWAYS AND ENGINEER. IT IS THE RESPONSIBILITY OF THE PROPERTY OWNER TO ARRANGE SUCH A MEETING.
3. NO BUILDING PERMIT FOR A BUILDING SUBJECT TO SITE PLAN APPROVAL SHALL BE ISSUED BY THE BUILDING INSPECTOR EXCEPT UPON AUTHORIZATION OF AND IN CONFORMITY WITH THE SITE PLAN APPROVED BY THE PLANNING BOARD.
4. SANITARY SEWER INFILTRATION AND EXFILTRATION LIMIT IS 25 GALLONS PER INCH DIAMETER PER MILE PER DAY. CERTIFICATES OF OCCUPANCY MAY NOT BE REQUESTED NOR ANY OCCUPANCY PERMITTED UNTIL A CERTIFICATE OF COMPLIANCE, CERTIFIED BY A LICENSED NEW YORK STATE PROFESSIONAL ENGINEER IS SUBMITTED AND APPROVED AND COPIES OF THIS CERTIFICATE SHOULD ALSO BE SENT TO THE ROCKLAND COUNTY DEPARTMENT OF HEALTH AND TO THE ROCKLAND COUNTY SEWER DISTRICT No. 1 AND JOINT REGIONAL SEWERAGE BOARD.
5. ROCKLAND COUNTY DEPARTMENT OF HEALTH(RCDOH) APPROVAL IS LIMITED TO 5 YEARS AND SHALL EXPIRE 5 YEARS FROM THE DATE OF THE FILING OF THE PLAT IN THE TOWN OF HAVERSTRAW CLERK'S OFFICE. TIME EXTENSIONS MAY BE GRANTED BY THE RCDOH BASED UPON DEVELOPMENT FACTS AND THE SITE PLAN REGULATIONS IN EFFECT AT THAT TIME. A NEW PLAN SUBMISSION MAY BE REQUIRED TO OBTAIN A TIME EXTENSION.
6. ALL BUILDING MOUNTED FIXTURES WHICH ARE NOT LED SHALL BE FULLY SHIELDED TO MINIMIZE GLARE AND LIGHT POLLUTION.
7. ALL WALLS OVER 4 FT MUST BE DESIGNED, CERTIFIED, INSPECTED BY THE CONTRACTOR / OWNERS / ENGINEER.

DRAWING LIST:

DRAWING No.	TITLE
DRAWING 1	– COVER SHEET
DRAWING 2	– EXISTING CONDITION
DRAWING 3	– OVERALL GRADING PLAN
DRAWING 4	– GRADING AND UTILITY SOUTH END
DRAWING 5	– GRADING AND UTILITY MIDDLE
DRAWING 6	– GRADING AND UTILITY NORTH END
DRAWING 7	– DRAINAGE PROFILES
DRAWING 8	– HUDSON DR. OFF–SITE
DRAWING 9	– HUDSON DR. PROFILE (STATION 8+00 TO 13+25)
DRAWING 10	– HUDSON DR. PROFILE (STATION 13+25 TO 19+78)
DRAWING 11	– LIGHTING PLAN HUDSON DR.
DRAWING 12	– LIGHTING PLAN SOUTH END
DRAWING 13	– LIGHTING PLAN MIDDLE
DRAWING 14	– LIGHTING PLAN NORTH END
DRAWING 15	– BIO–FILTER PROFILES
DRAWING 16	– HUNTER PLACE SECONDARY ACCESS
DRAWING 17	– WATER DETAILS
DRAWING 18	– DRAINAGE AND SEWER DETAILS
DRAWING 19	– EROSION CONTROL AND SIGNAGE DETAILS

BUILDING INSPECTORS APPROVAL FOR FILING	APPROVED BY RESOLUTION OF THE STONY POINT PLANNING BOARD.
BUILDING INSPECTOR TOWN OF STONY POINT — DATE	CHAIRMAN STONY POINT PLANNING BOARD — DATE
TOWN ENGINEERS APPROVAL FOR FILING	OWNERS APPROVAL FOR FILING
TOWN ENGINEER TOWN OF STONY POINT — DATE	OWNER — DATE

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"ONLY COPIES FROM THE ORIGINAL TRACING OF THIS SURVEY MAP BEARING THE LICENSED LAND SURVEYOR'S EMBOSSED SEAL SHALL BE CONSIDERED TO BE VALID TRUE COPIES."
"THE SURVEY MAP INDICATED HERE ON SIGN'S THAT THE SURVEY WAS PREPARED IN ACCORDANCE WITH THE EXISTING CODE OF PRACTICE FOR LAND SURVEYS ADOPTED BY THE ASSOCIATION OF HUDSON LAND SURVEYORS ASSOCIATION. SUCH CERTIFICATIONS SHALL RUN ONLY TO THOSE NAMED PERSONS, THE PARTY FOR WHOM THE SURVEY WAS PREPARED, CERTIFICATIONS ARE NOT TRANSFERABLE TO ADDITIONAL INDIVIDUALS, SUBSEQUENT OWNERS, MORTGAGORS AND/OR LENDERS OR SUBSEQUENT OWNERS."

THE EDUCATION LAW OF THE STATE OF NEW YORK PROHIBITS ANY PERSON ALTERING ANYTHING ON THESE DRAWINGS UNDER THE JURISDICTION OF THE PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, WHERE SUCH ALTERATION OR ADDITION IS PROPERLY PREFACED BY THE WORDS "ALTERED BY" FOLLOWED BY HIS/HER NAME AND EXTENT OF THE ALTERATION ON THE DRAWINGS. AND/OR IN THE SPECIFICATIONS. (NYS EDUCATION LAW SECTION 7209-2)

R.V.N. — N.Y.S. Professional Engineer 49066

R.V.N. — N.Y.S. Professional Engineer 50228

REVISION	DATE	DESCRIPTION

ATZI, NASHER & ZIGLER P.C.
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Fax: (845) 634–5543
E-mail: info@anzny.com
Web: www.ANZNY.com

Design Development, pllc
165 Mamaroneck Ave, Floor 2
White Plains, NY 10601
914.949.4272 t.
914.949.4278 f.
A DESIGN AND DEVELOPMENT CONSULTANCY

PROJECT:

EAGLE BAY

TOWN OF STONY POINT
ROCKLAND COUNTY, NEW YORK

TITLE:

COVER SHEET

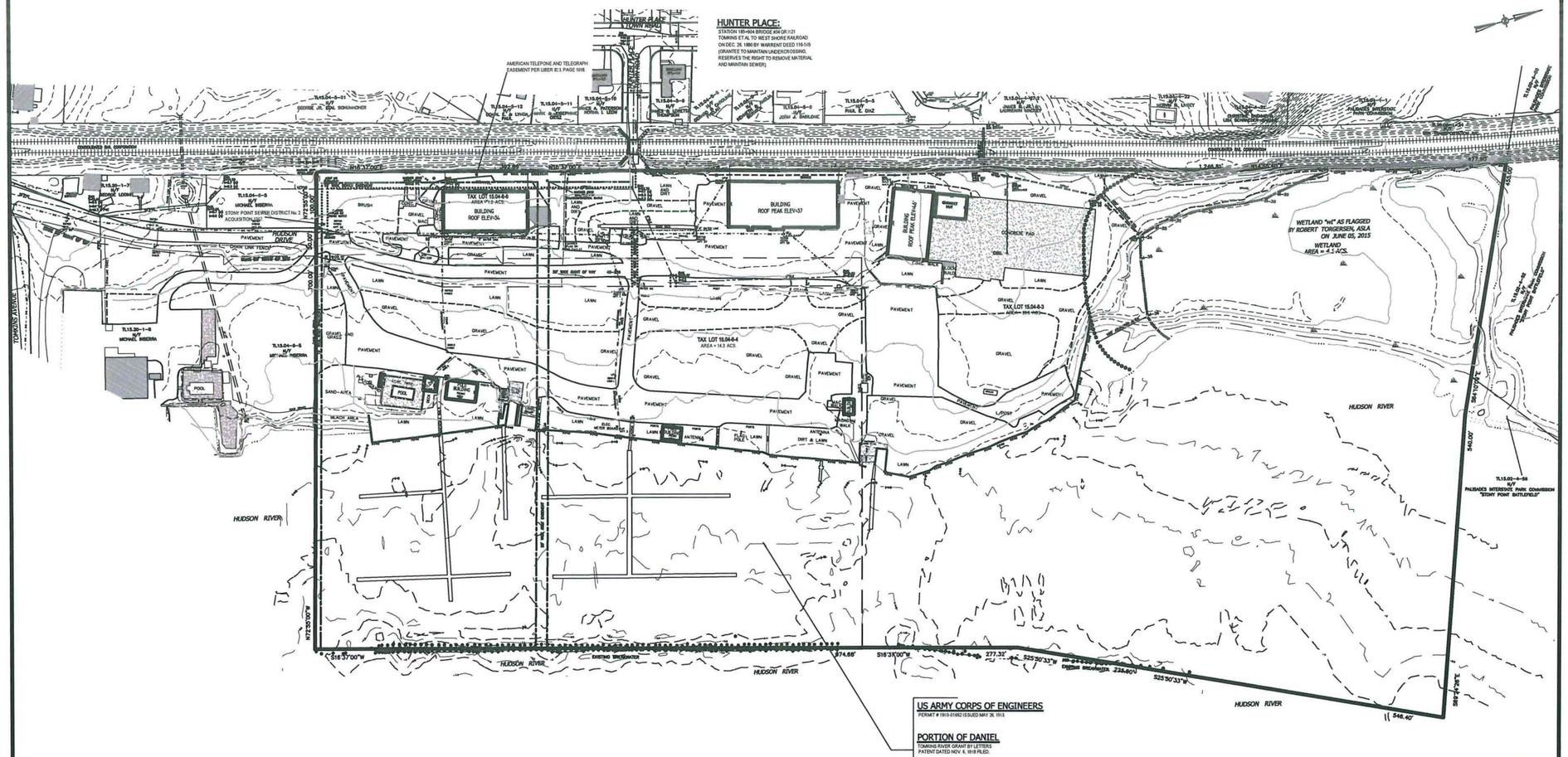
DRAWN BY: VC	CHECKED BY: DMZ
DATE: AUGUST 01, 2019	SCALE: 1 IN. = 80 FT.
PROJECT NO: 1407	DRAWING NO: 1

① **HUNTER PLACE:**
ESTABLISHED AND RECORDED IN THE ROCKLAND COUNTY CLERK'S OFFICE SEPT. 13, 1941.

② **HUNTER PLACE:**
ON FILE MAP ENTITLED AS "MAP SHOWING ROADS TO BE DEEDED TO TOWN OF STONY POINT" FILED FEB. 10, 1948.

③ DEED TO THE TOWN OF STONY POINT FILED JAN. 21, 1948 LIBER 476, PAGE 95

HUNTER PLACE:
STATION 187+604 BRIDGE #34 OR 1121
TOMKINS ET AL TO WEST SHORE RAILROAD ON DEC. 26, 1880 BY WARRENT DEED 116/515 (GRANTEE TO MAINTAIN UNDERCROSSING. RESERVES THE RIGHT TO REMOVE MATERIAL AND MAINTAIN SEWER).



OWNER:		SURVEY			ZONING CODE
TAX LOT 15.04-6-3	BREAKERS ON THE HUDSON, LLC	AREA OF WETLAND	=	3.3 ACS.	1.6 ACS.
	5 EASTVIEW ROAD	AREA OF LAND	=	9.9 ACS.	9.9 ACS.
	MONSEY, NEW YORK 10952	AREA OF WATER	=	12.4 ACS.	6.3 ACS.
		AREA	=	25.5 ACS.	17.7 ACS.
TAX LOT 15.04-6-4	BREAKERS ON THE HUDSON, LLC	AREA OF LAND	=	6.1 ACS.	6.1 ACS.
	5 EASTVIEW ROAD	AREA OF WATER	=	8.2 ACS.	4.1 ACS.
	MONSEY, NEW YORK 10952	AREA	=	14.3 ACS.	10.2 ACS.
TAX LOT 15.04-6-6	BREAKERS ON THE HUDSON, LLC	AREA OF LAND	=	1.2 ACS.	1.2 ACS.
	5 EASTVIEW ROAD	AREA OF WATER	=	0.5 ACS.	0.0 ACS.
	MONSEY, NEW YORK 10952	AREA	=	1.7 ACS.	1.2 ACS.
		TOTAL AREA		41.0 ACS.	29.1 ACS.

LEGEND

- 301 — EXISTING 1' CONTOUR
- 300 — EXISTING 2' CONTOUR
- 300 — EXISTING 10' CONTOUR
- W — EXISTING WATERLINE
- WV — EXISTING WATER VALVE
- FH — EXISTING FIRE HYDRANT
- G — EXISTING GAS LINE
- GV — EXISTING GAS VALVE
- CB — EXISTING CATCH BASIN
- EXISTING STORM DRAIN LINE
- SMH — EXISTING SEWER MANHOLE
- S — EXISTING SEWER LINE
- + 300.0 — EXISTING SPOT ELEVATION
- EXISTING STONEWALL
- UP — EXISTING UTILITY POLE
- OHW — EXISTING OVERHEAD WIRES
- EXISTING SIGN
- EXISTING FENCE

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"UNAUTHORIZED ALTERATIONS OR ADDITIONS TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S EMBOSSED SEAL IS A VIOLATION OF SECTION 7209 OF THE EDUCATION LAW OF THE NEW YORK STATE EDUCATION LAW."
"ONLY COPIES FROM THE ORIGINAL TRACING OF THIS MAP BEARING THE LAND SURVEYOR'S INK SIGNATURE AND SEAL SHALL BE CONSIDERED TRUE AND VALID TRUE COPIES."
"THE EXECUTION INDICATED HERE ON SIGNIFY THAT THE SURVEY SHOWN HEREON WAS PERFORMED IN ACCORDANCE WITH THE CURRENT CODE OF PRACTICE FOR LAND SURVEYS ADOPTED BY THE DELAWARE-LACKAWANNA CHAPTER OF THE NEW YORK STATE ASSOCIATION. THIS CERTIFICATION SHALL RUN ONLY TO THOSE BANKS INDIVIDUALS AND/OR INSTITUTIONS FOR WHOM THE SURVEY WAS PREPARED. CERTIFICATIONS ARE NOT TRANSFERABLE TO ADDITIONAL INSTITUTIONS OR SUBSEQUENT OWNERS OF MORTGAGES, THOSE SUCCESSORS AND/OR ASSIGNS OF SUBSEQUENT OWNERS."

STATE OF NEW YORK — RVVN — N.Y.S. P.E. LICENSE No. 69066

STATE OF NEW YORK — N.Y.S. P.E. LICENSE No. 0228

REVISION	DATE	DESCRIPTION

ATZI, NASHER & ZIGLER P.C.
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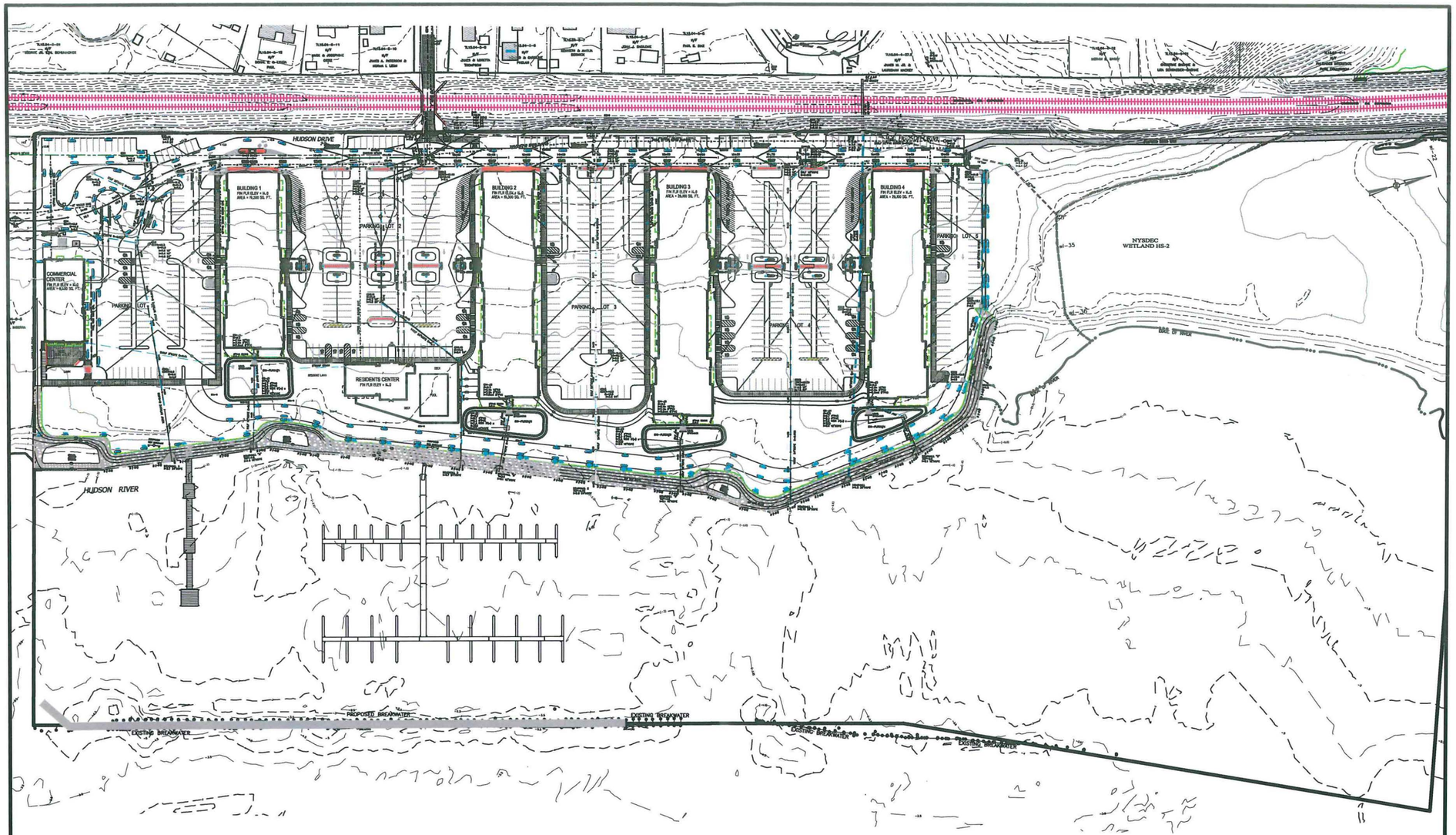
914.949.4278 f.
A DESIGN AND DEVELOPMENT CONSULTANCY

PROJECT: EAGLE BAY

TOWN OF STONY POINT
ROCKLAND COUNTY, NEW YORK

TITLE: EXISTING CONDITION PLAN

DRAWN BY: VC	CHECKED BY: DMZ
DATE: AUGUST 01, 2019	SCALE: 1 IN. = 80 FT.
PROJECT NO: 1407	DRAWING NO: 2



LEGEND

EXISTING 1' CONTOUR	PROPOSED 1' CONTOUR
EXISTING 5' CONTOUR	PROPOSED 5' CONTOUR
EXISTING 10' CONTOUR	PROPOSED 10' CONTOUR
EXISTING WATERLINE	PROPOSED WATER SERVICE
EXISTING WATER VALVE	PROPOSED WATER VALVE
EXISTING FIRE HYDRANT	PROPOSED FIRE HYDRANT
EXISTING GAS LINE	PROPOSED GAS SERVICE
EXISTING GAS VALVE	PROPOSED GAS VALVE
EXISTING CATCH BASIN	PROPOSED CATCH BASIN
EXISTING STORM DRAIN LINE	PROPOSED STORM DRAIN LINE
EXISTING SEWER MANHOLE	PROPOSED SEWER CLEANOUT
EXISTING SEWER LINE	PROPOSED SEWER HOUSE CONNECTION
EXISTING SPOT ELEVATION	PROPOSED SPOT ELEVATION
EXISTING STONEWALL	PROPOSED SILT FENCE
EXISTING UTILITY POLE	PROPOSED CONSTRUCTION FENCE
EXISTING OVERHEAD WIRES	PROPOSED NEW LIGHT POLE
EXISTING SIGN	PROPOSED SIGN
EXISTING FENCE	PROPOSED ROOF DRAIN
	PROPOSED DOWN SPOUT
	PROPOSED SEWER LINE

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"ONLY COPIES FROM THE ORIGINAL TRACING OF THIS SURVEY MAP MARKED WITH THE LAND SURVEYOR'S INK SIGNATURE AND SEAL SHALL BE CONSIDERED TO BE VALID TRUE COPIES."

"CERTIFICATION INDICATED HERE ON SUBMITTED MAP IS MADE ONLY TO THE PERSON FOR WHOM THE SURVEY MAP IS PREPARED, AND TO THE LENDER, GUARANTOR, TITLE COMPANY, GOVERNMENT AGENCY AND LAND SURVEYORS IDENTIFIED BY THE LAND SURVEYOR IDENTIFIED HEREON. THE CERTIFICATION DOES NOT EXTEND TO ANY OTHER PARTIES OR ADDITIONAL OR SUBSEQUENT OWNERS, NOR TO ANY OTHER TRANSACTION, MORTGAGE, INSTITUTIONAL LOAN, SUCCESSORS AND/OR ASSIGNS OR SUBSEQUENT OWNERS."

STATE OF NEW YORK — RYAN A. ALEXANDER — LICENSED PROFESSIONAL ENGINEER
RYAN A. ALEXANDER
N.Y.S. LICENSE NO. 090066

STATE OF NEW YORK — MICHAEL E. ATZI — LICENSED PROFESSIONAL ENGINEER
MICHAEL E. ATZI
N.Y.S. LICENSE NO. 060228

REVISION	DATE	DESCRIPTION

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232 North Main Street
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Web: www.ANZNY.com

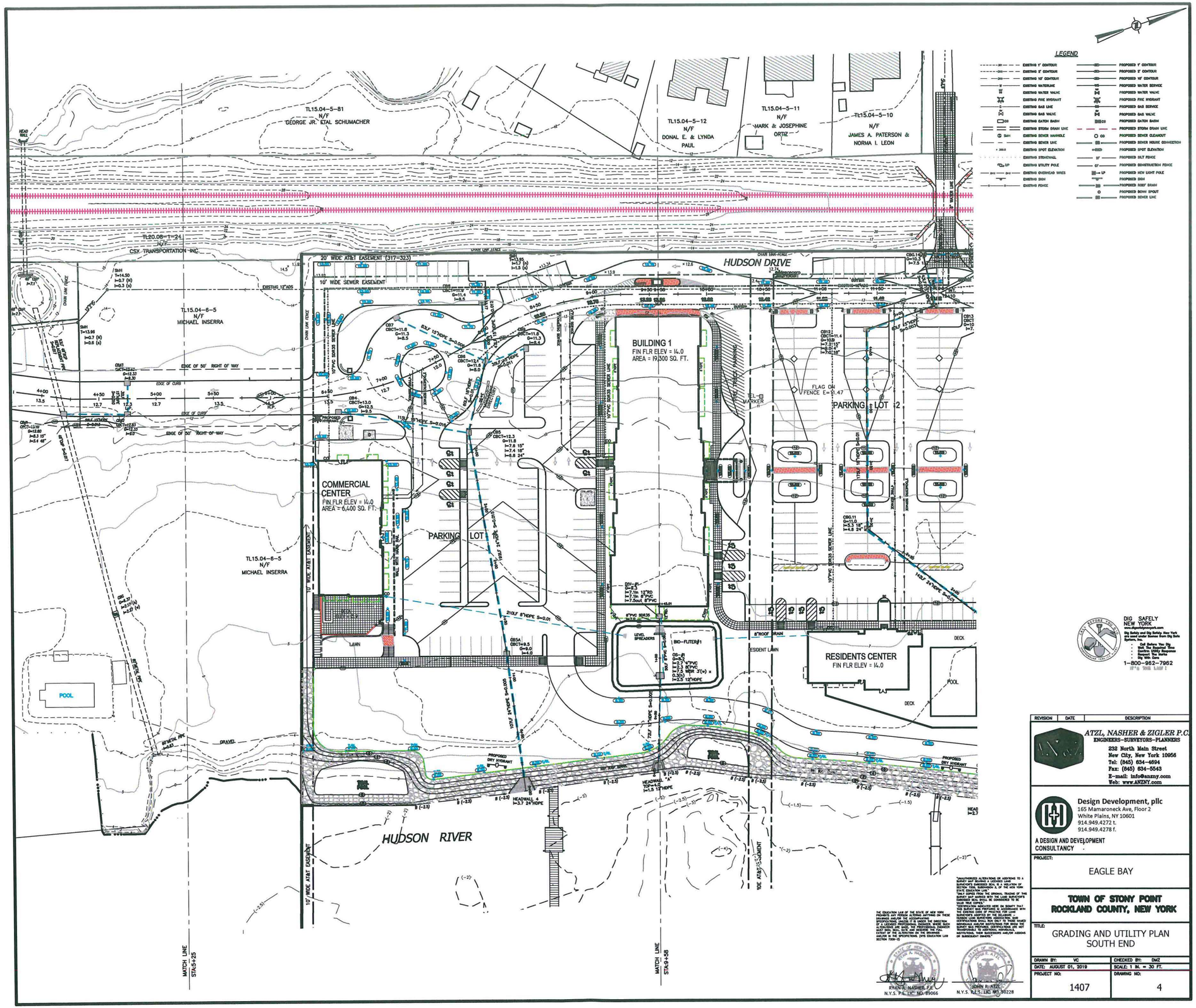
Design Development, pllc
165 Mamaroneck Ave, Floor 2
White Plains, NY 10601
914.949.4272 t.
914.949.4278 f.
A DESIGN AND DEVELOPMENT CONSULTANCY

PROJECT:
EAGLE BAY

TOWN OF STONY POINT
ROCKLAND COUNTY, NEW YORK

TITLE:
OVERALL GRADING PLAN

DRAWN BY: VC	CHECKED BY: DMZ
DATE: AUGUST 01, 2019	SCALE: 1 IN. = 80 FT.
PROJECT NO: 1407	DRAWING NO: 3



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232 North Main Street
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914.949.4278 f.
A DESIGN AND DEVELOPMENT CONSULTANCY

PROJECT:

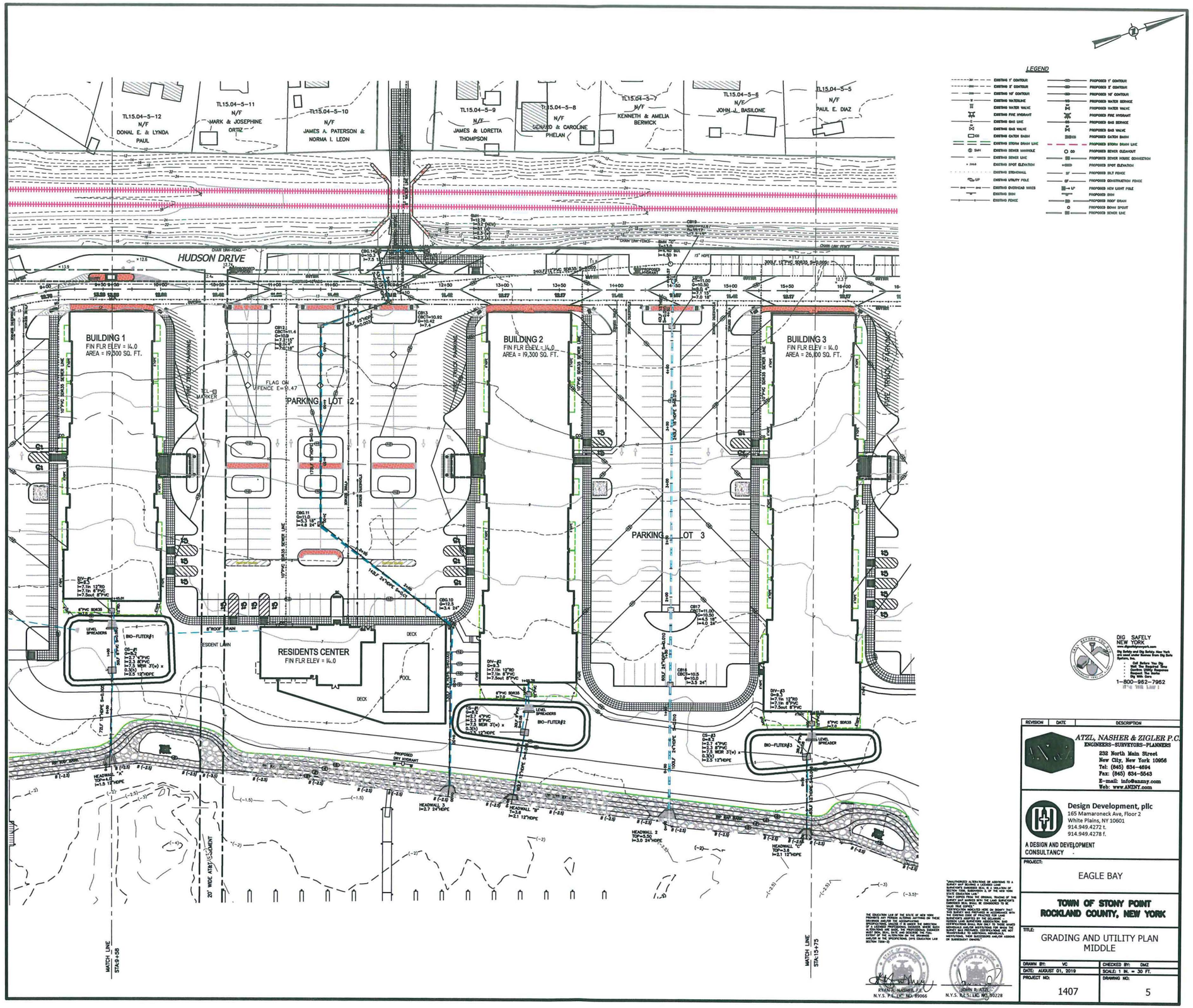
EAGLE BAY

TOWN OF STONY POINT
ROCKLAND COUNTY, NEW YORK

TITLE:

GRADING AND UTILITY PLAN
SOUTH END

DRAWN BY: VC	CHECKED BY: DMZ
DATE: AUGUST 01, 2019	SCALE: 1 IN. = 30 FT.
PROJECT NO: 1407	DRAWING NO: 4


LEGEND
TL15.04-5-12 N/F DONAL E. & LYNDA PAUL
TL15.04-5-11 N/F MARK & JOSEPHINE ORTIZ
TL15.04-5-10 N/F JAMES A. PATERSON & NORMA I. LEON
TL15.04-5-9 N/F JAMES & LORETTA THOMPSON
TL15.04-5-8 N/F GERARD & CAROLINE PHELAN
TL15.04-5-7 N/F KENNETH & AMELIA BERWICK
TL15.04-5-6 N/F JOHN J. BASILONE
TL15.04-5-5 N/F PAUL E. DIAZ
HUDSON DRIVE
BUILDING 1
FIN FLR ELEV = 14.0
AREA = 19,300 SQ. FT.
BUILDING 2
FIN FLR ELEV = 14.0
AREA = 19,300 SQ. FT.
BUILDING 3
FIN FLR ELEV = 14.0
AREA = 26,000 SQ. FT.
PARKING LOT 2
PARKING LOT 3
FIRE TRUCK PARKING
RESIDENTS CENTER
FIN FLR ELEV = 14.0
DECK
POOL
BIO-FILTER#1
BIO-FILTER#2
BIO-FILTER#3
LEVEL SPREADERS
HEADWALL "A"
HEADWALL "B"
HEADWALL "C"
HEADWALL 2
HEADWALL 3
20' WIDE AT&T EASEMENT
MATCH LINE STA:9+38
MATCH LINE STA:15+75
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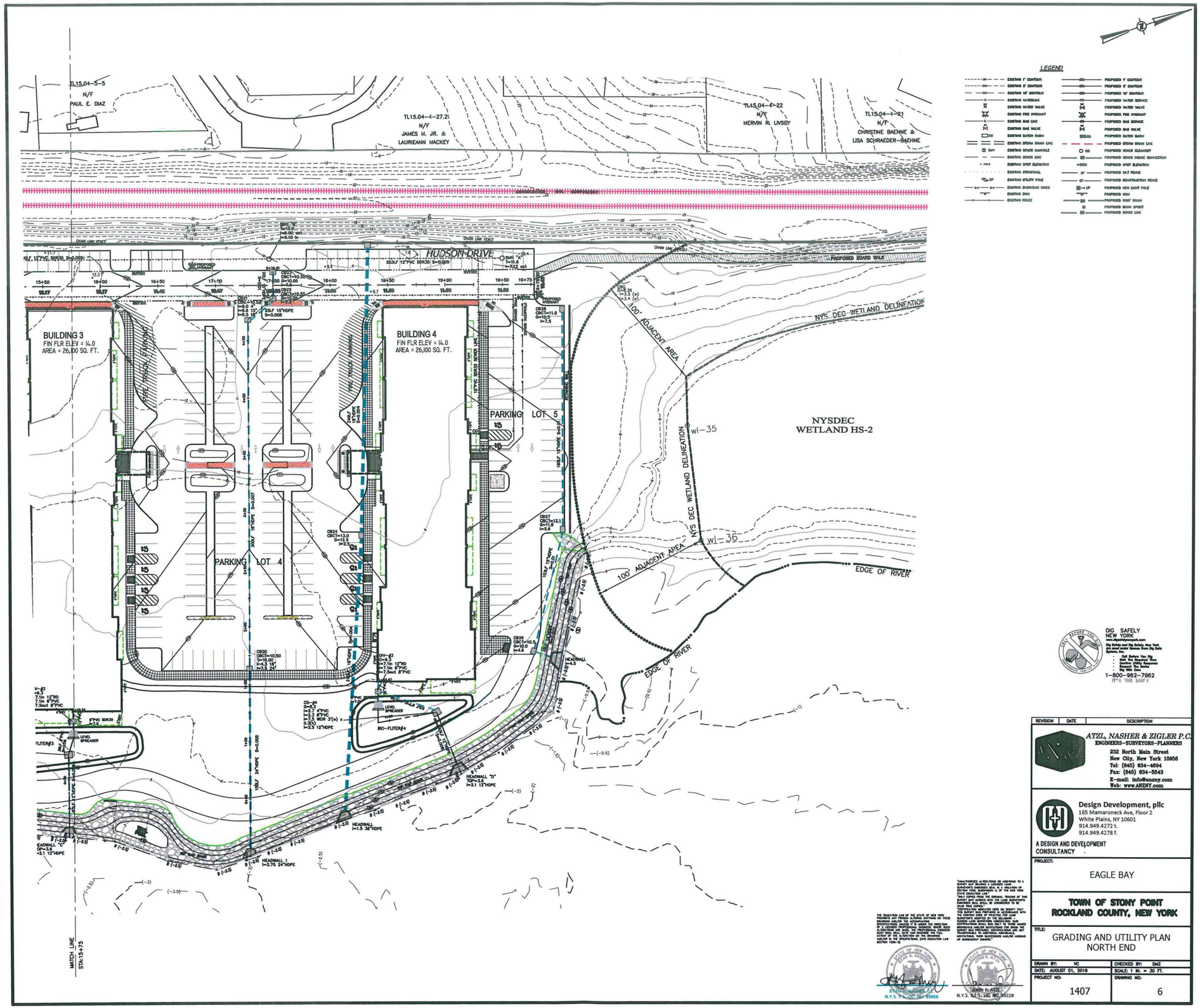
914.949.4278 f.
A DESIGN AND DEVELOPMENT CONSULTANCY
PROJECT:
EAGLE BAY
TOWN OF STONY POINT
ROCKLAND COUNTY, NEW YORK
TITLE:
GRADING AND UTILITY PLAN
MIDDLE
DRAWN BY: VC
CHECKED BY: DMZ
DATE: AUGUST 01, 2019
SCALE: 1 IN. = 30 FT.
PROJECT NO: 1407
DRAWING NO: 5
RYAN S. NASHER, P.E.
N.Y.S. P.E. LIC. NO. 89066
JOHN R. ATZL
N.Y.S. R.L.S. LIC. NO. 50228



LEGEND

EXISTING 1' CONTOUR	PROPOSED 1' CONTOUR
EXISTING 5' CONTOUR	PROPOSED 5' CONTOUR
EXISTING 10' CONTOUR	PROPOSED 10' CONTOUR
EXISTING WATERLINE	PROPOSED WATER SERVICE
EXISTING WATER VALVE	PROPOSED WATER VALVE
EXISTING FIRE HYDRANT	PROPOSED FIRE HYDRANT
EXISTING GAS LINE	PROPOSED GAS SERVICE
EXISTING GAS VALVE	PROPOSED GAS VALVE
EXISTING CATCH BASIN	PROPOSED CATCH BASIN
EXISTING STORM DRAIN LINE	PROPOSED STORM DRAIN LINE
EXISTING SEWER MANHOLE	PROPOSED SEWER CLEANOUT
EXISTING SEWER LINE	PROPOSED SEWER HOUSE CONNECTION
EXISTING SPOT ELEVATION	PROPOSED SPOT ELEVATION
EXISTING STONEWALL	PROPOSED SILT FENCE
EXISTING UTILITY POLE	PROPOSED CONSTRUCTION FENCE
EXISTING OVERHEAD WIRES	PROPOSED NEW LIGHT POLE
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EXISTING FENCE	PROPOSED ROOF DRAIN
	PROPOSED DOWN SPOUT
	PROPOSED SEWER LINE

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STATE OF NEW YORK
JOHN R. ATZL
N.Y.S. L.S. LIC NO. 50228

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THE FIELD WORK REQUIRED HERE ON SURVEY THIS THE SURVEY WAS PREPARED IN ACCORDANCE WITH THE EXISTING REQUIREMENTS OF THE NEW YORK STATE LAND SURVEYORS ASSOCIATION. DATE OF FIELD WORK: _____ ANY ONLY TO THOSE PARTIES CERTIFICATE HEREON. THIS MAP IS NOT TO BE THE SURVEY WAS PREPARED. CERTIFICATIONS ARE NOT TRANSFERABLE TO ADDITIONAL INDIVIDUALS, INSTITUTIONS, OR GOVERNMENTAL AGENCIES AND/OR ASSIGNORS AND/OR ASSIGNS OF SUBSEQUENT OWNERS."

STATE OF NEW YORK
PETER A. KLEIN
N.Y.S. L.S. LIC. NO. 050066

REVISION	DATE	DESCRIPTION

ATZL, NASHER & ZIGLER P.C.
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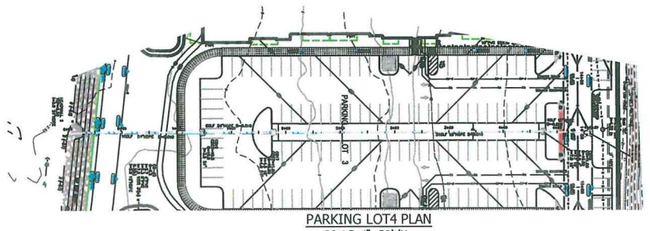
914.949.4272 t.
914.949.4278 f.
A DESIGN AND DEVELOPMENT CONSULTANCY

PROJECT:
EAGLE BAY

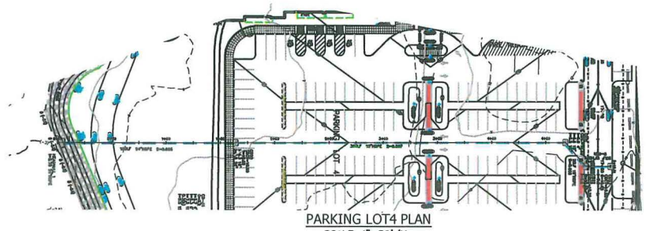
TOWN OF STONY POINT
ROCKLAND COUNTY, NEW YORK

TITLE:
GRADING AND UTILITY PLAN
NORTH END

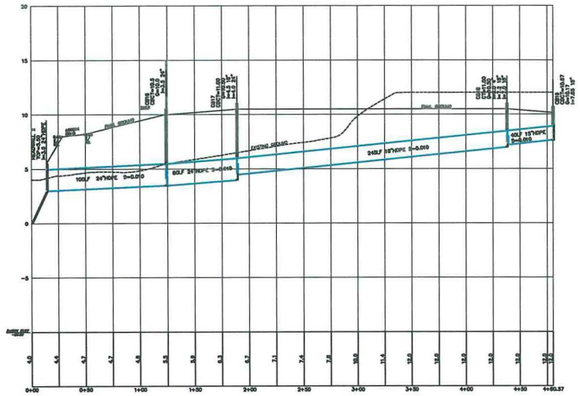
DRAWN BY: VC	CHECKED BY: DMZ
DATE: AUGUST 01, 2019	SCALE: 1 IN. = 30 FT.
PROJECT NO: 1407	DRAWING NO: 6



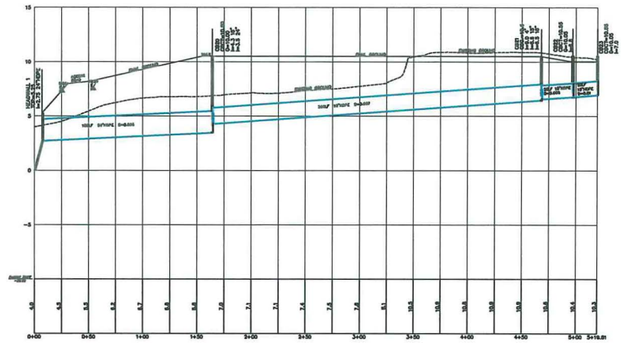
PARKING LOT4 PLAN
SCALE: 1"=50'/H



PARKING LOT4 PLAN
SCALE: 1"=50'/H

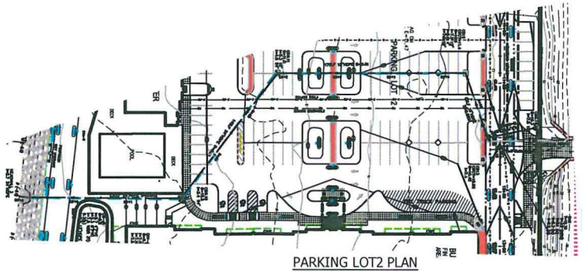


PARKING LOT4 DRAINAGE PROFILE
SCALE: 1"=50' /H, 1"=5' /V

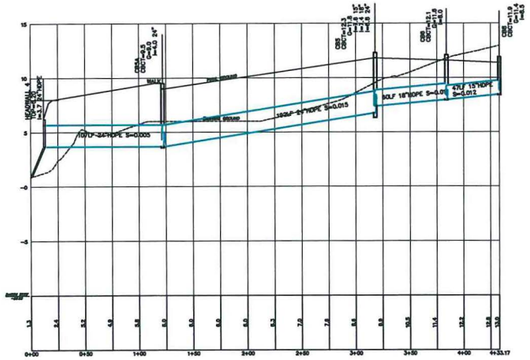


PARKING LOT4 DRAINAGE PROFILE
SCALE: 1"=50' /H, 1"=5' /V

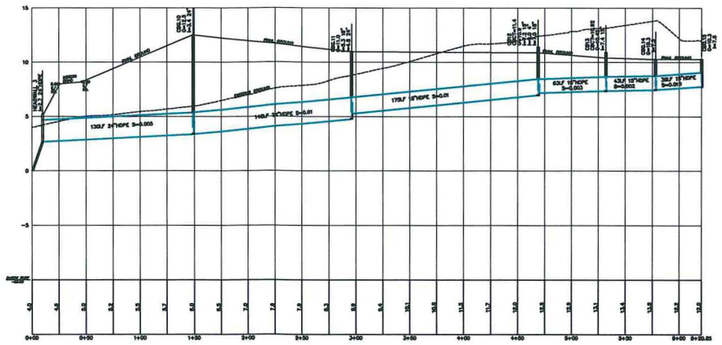
PARKING LOT1 PLAN
SCALE: 1"=50'/H



PARKING LOT2 PLAN
SCALE: 1"=50'/H



PARKING LOT1 DRAINAGE PROFILE
SCALE: 1"=50' /H, 1"=5' /V



PARKING LOT2 DRAINAGE PROFILE
SCALE: 1"=50' /H, 1"=5' /V

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RYAN P. NASHER, P.E.
N.Y.S. P.E. LIC. NO. 85066

"UNAUTHORIZED ALTERATIONS OR ADDITIONS TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S EMBOSSED SEAL IS A VIOLATION OF SECTION 7209 OF THE EDUCATION L.W OF THE NEW YORK STATE EDUCATION LAW."
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THE SURVEY INFORMATION SHOWN HERE ON SURVEY PHOTO MAP WAS PREPARED IN ACCORDANCE WITH THE EXISTING CODE OF PRACTICE FOR LAND SURVEYS ADOPTED BY THE NEW YORK STATE ASSOCIATION OF LICENSED LAND SURVEYORS. SUCH CERTIFICATIONS SHALL RUN ONLY TO THOSE NAMED PERSONS, INSTITUTIONS AND CORPORATIONS FOR WHOM SURVEY WAS PREPARED. CERTIFICATIONS ARE NOT TRANSFERABLE TO ADDITIONAL INDIVIDUALS, INSTITUTIONS, FIRM DIRECTORS AND/OR ASSIGNS OR SUBSIDIARY CORPORATIONS.

JOHN R. ATZL
N.Y.S. P.L.S. LIC. NO. 36228

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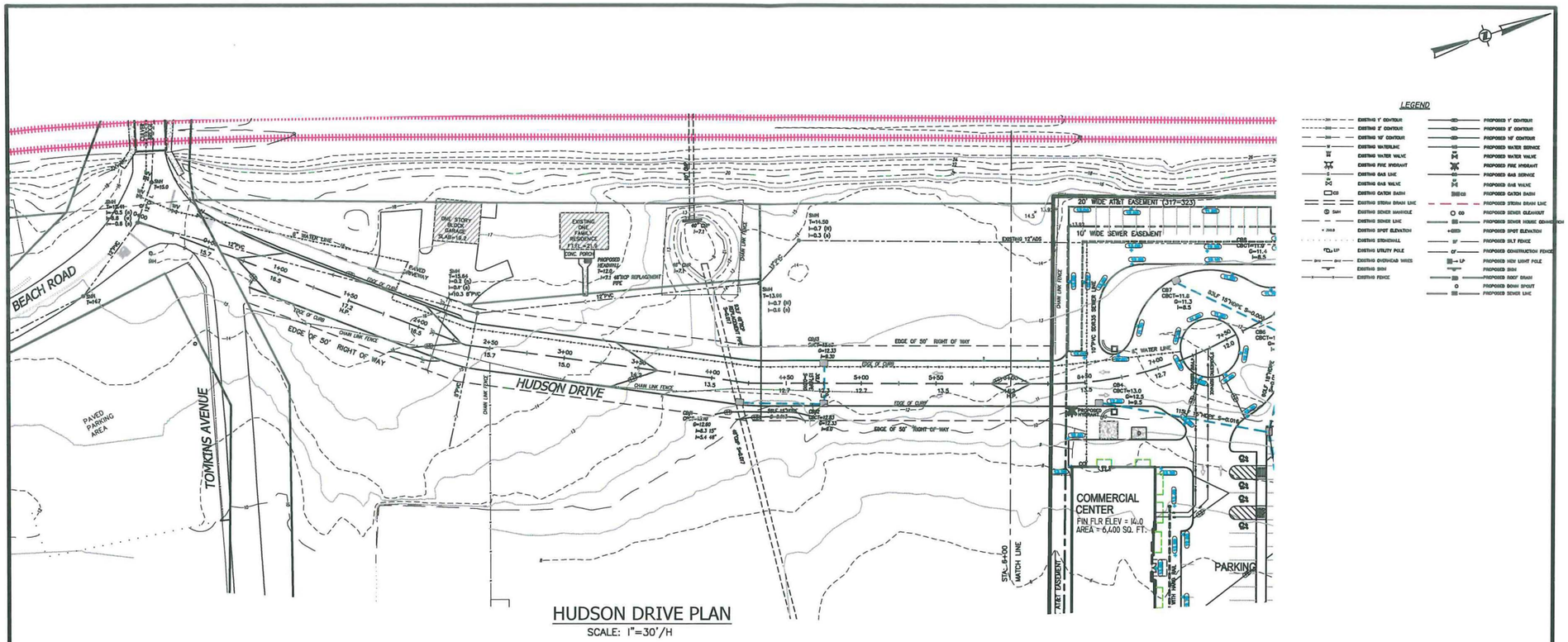
914.949.4278 f.
A DESIGN AND DEVELOPMENT CONSULTANCY

PROJECT:
EAGLE BAY

TOWN OF STONY POINT
ROCKLAND COUNTY, NEW YORK

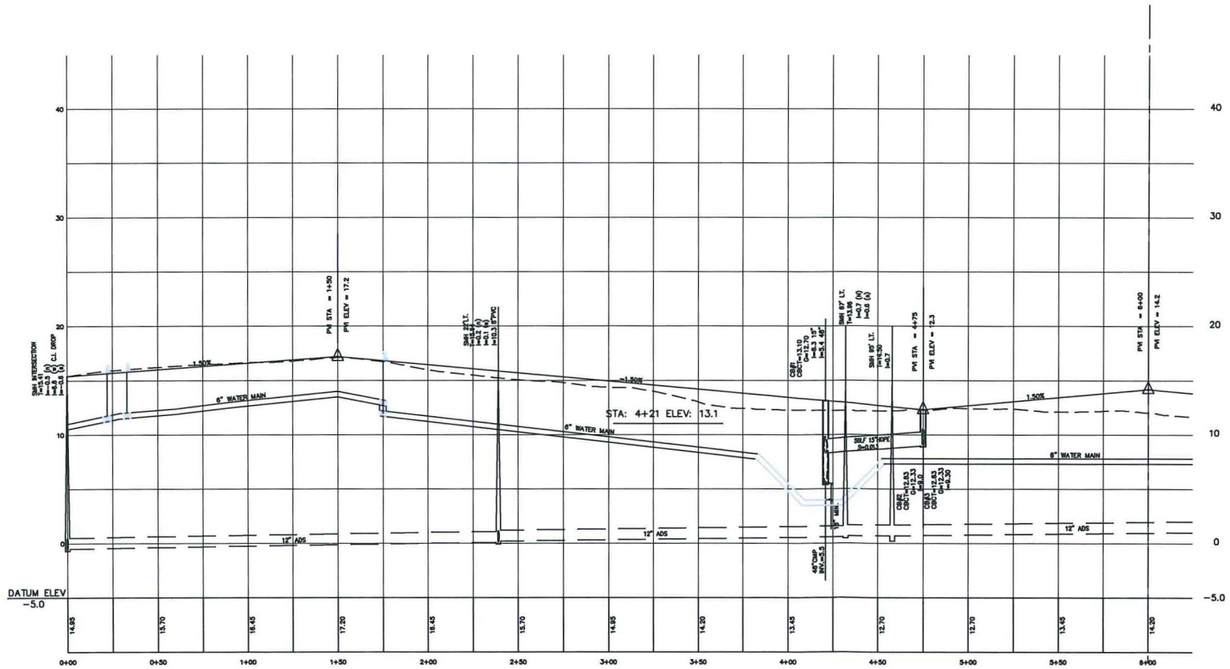
TITLE:
DRAINAGE PROFILE

DRAWN BY: VC	CHECKED BY: DMZ
DATE: MAY 30, 2018	SCALE: 1 IN. = 20 FT.
PROJECT NO: 1407	DRAWING NO: 7



HUDSON DRIVE PLAN

SCALE: 1"=30'/H



HUDSON DRIVE PROFILE

SCALE: 1"=30' /H, 1"=5' /V

LEGEND

EXISTING 1' CONTOUR	PROPOSED 1' CONTOUR
EXISTING 5' CONTOUR	PROPOSED 5' CONTOUR
EXISTING 10' CONTOUR	PROPOSED 10' CONTOUR
EXISTING WATERLINE	PROPOSED WATER SERVICE
EXISTING WATER VALVE	PROPOSED WATER VALVE
EXISTING FIRE HYDRANT	PROPOSED FIRE HYDRANT
EXISTING GAS LINE	PROPOSED GAS SERVICE
EXISTING GAS VALVE	PROPOSED GAS VALVE
EXISTING CATCH BASIN	PROPOSED CATCH BASIN
EXISTING STORM DRAIN LINE	PROPOSED STORM DRAIN LINE
EXISTING SEWER MANHOLE	PROPOSED SEWER CLEANOUT
EXISTING SEWER LINE	PROPOSED SEWER HOUSE CONNECTION
EXISTING SPOT ELEVATION	PROPOSED SPOT ELEVATION
EXISTING STREETHALL	PROPOSED SILT FENCE
EXISTING UTILITY POLE	PROPOSED CONSTRUCTION FENCE
EXISTING OVERHEAD WIRES	PROPOSED NEW LIGHT POLE
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EXISTING FENCE	PROPOSED ROOF DRAIN
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	PROPOSED SEWER LINE

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"UNAUTHORIZED ALTERATIONS OR ADDITIONS TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S SEAL IN VIOLATION OF SECTION 7209, SUBDIVISION 2, OF THE NEW YORK STATE EDUCATION LAW."

"ONLY COPIES FROM THE ORIGINAL TRACING OF THIS MAP BEARING THE INK SIGNATURE OF THE LAND SURVEYOR'S EMBOSSED SEAL SHALL BE CONSIDERED TO BE TRUE AND VALID COPIES."

"THE CERTIFICATIONS HEREON MEAN THAT IN THE OPINION OF THE SURVEYOR, THE PROPERTY IS IN COMPLIANCE WITH THE EXISTING CODE OF PRACTICE FOR LAND SURVEYORS ADOPTED BY THE DELAWARE VALLEY CHAPTER OF THE NEW YORK STATE ASSOCIATION. THE CERTIFICATIONS SHALL RUN ONLY TO THOSE NAMED INDIVIDUALS AND/OR INSTITUTIONS FOR WHOM THE SURVEYOR PREPARED THE SURVEY, AND NOT TRANSFERABLE TO ADDITIONAL INDIVIDUALS, INSTITUTIONS, THEIR SUCCESSORS AND/OR ASSIGNS OR SUBSEQUENT OWNERS."

STATE OF NEW YORK
RYAN M. NASHER
N.Y.S. P.E. LIC. NO. 89066

STATE OF NEW YORK
JOHN R. ATZL
N.Y.S. P.L.S. LIC. NO. 50228

REVISION	DATE	DESCRIPTION

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914.949.4278 f.
A DESIGN AND DEVELOPMENT CONSULTANCY

PROJECT:

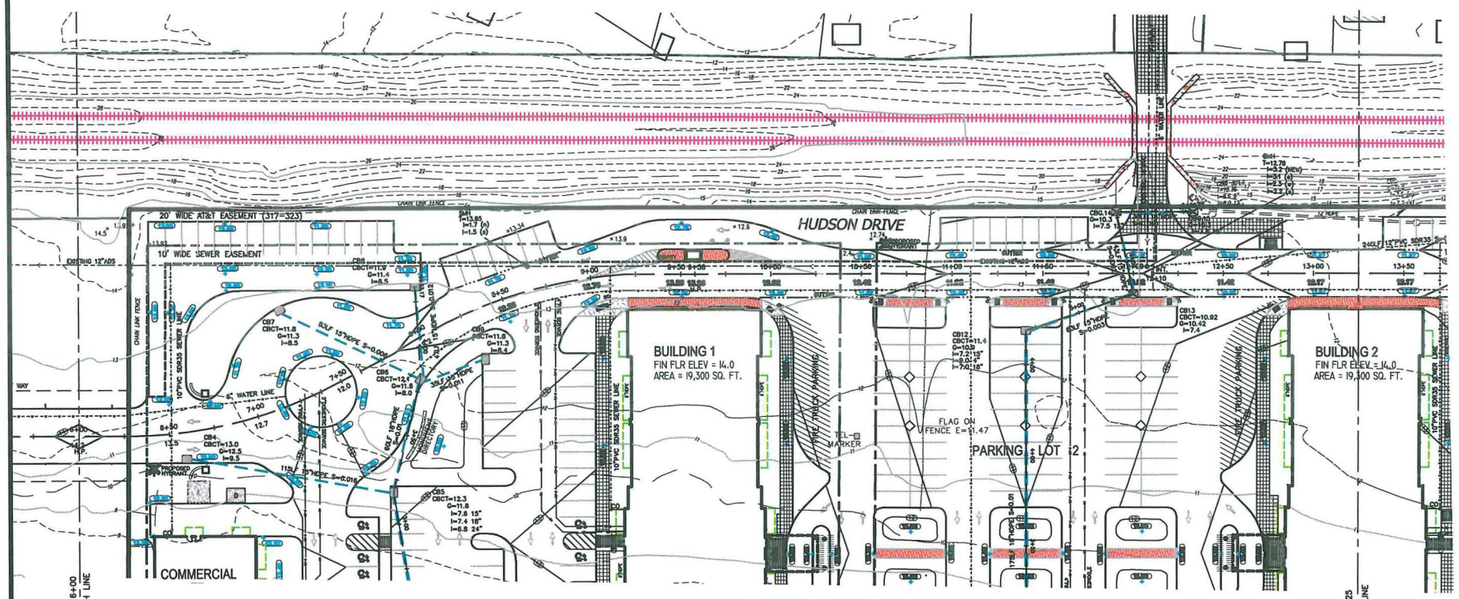
EAGLE BAY

TOWN OF STONY POINT
ROCKLAND COUNTY, NEW YORK

TITLE:

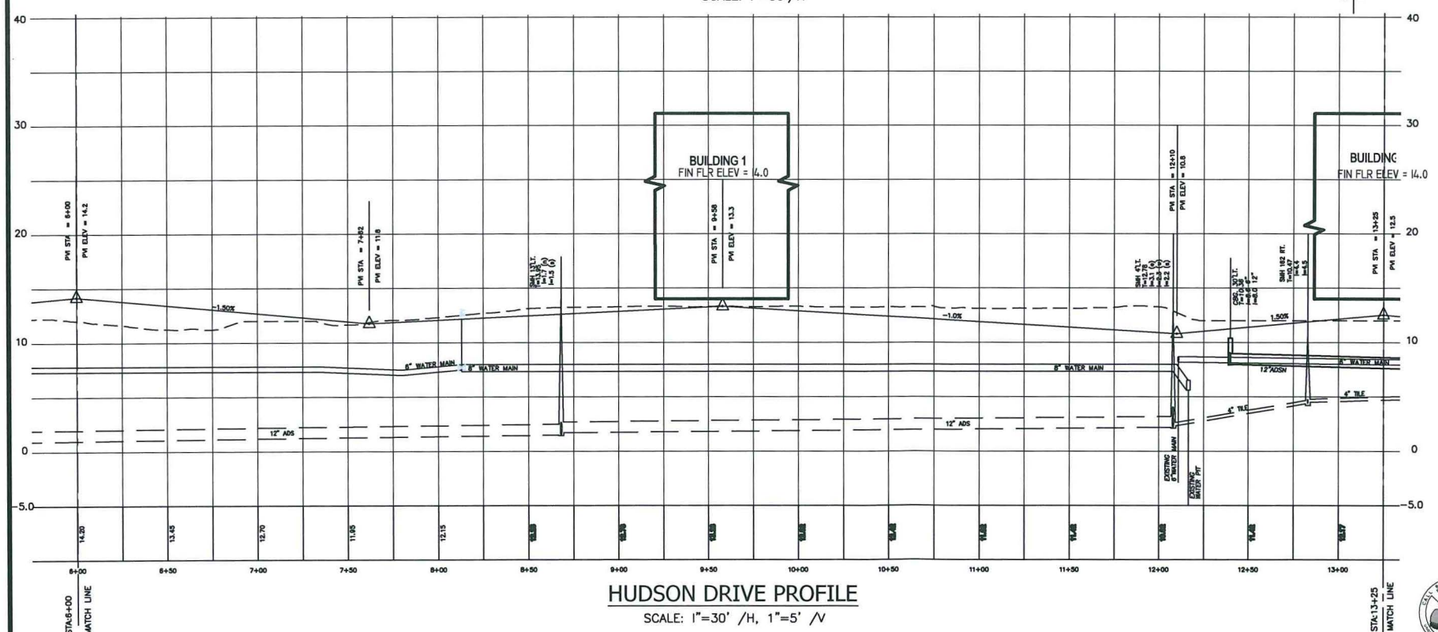
HUDSON DRIVE
OFF SITE

DRAWN BY: VC	CHECKED BY: DMZ
DATE: AUGUST 01, 2019	SCALE: AS NOTED
PROJECT NO: 1407	DRAWING NO: 8



HUDSON DRIVE PLAN

SCALE: 1"=30'/H



HUDSON DRIVE PROFILE

SCALE: 1"=30' /H, 1"=5' /V

LEGEND

EXISTING 1' CONTOUR	PROPOSED 1' CONTOUR
EXISTING 5' CONTOUR	PROPOSED 5' CONTOUR
EXISTING 10' CONTOUR	PROPOSED 10' CONTOUR
EXISTING WATERLINE	PROPOSED WATER SERVICE
EXISTING WATER VALVE	PROPOSED WATER VALVE
EXISTING FIRE HYDRANT	PROPOSED FIRE HYDRANT
EXISTING GAS LINE	PROPOSED GAS SERVICE
EXISTING GAS VALVE	PROPOSED GAS VALVE
EXISTING CATCH BASIN	PROPOSED CATCH BASIN
EXISTING STORM DRAIN LINE	PROPOSED STORM DRAIN LINE
EXISTING SEWER MANHOLE	PROPOSED SEWER CLEANOUT
EXISTING SEWER LINE	PROPOSED SEWER HOUSE CONNECTION
EXISTING SPOT ELEVATION	PROPOSED SPOT ELEVATION
EXISTING STONEWALL	PROPOSED SILT FENCE
EXISTING UTILITY POLE	PROPOSED CONSTRUCTION FENCE
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	PROPOSED SEWER LINE

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"ONLY COPIES FROM THE ORIGINAL TRACING OF THIS SURVEY MAP BEARING THE LICENSED LAND SURVEYOR'S EMBOSSED SEAL SHALL BE CONSIDERED TO BE VALID TRUE COPIES."
"THE SURVEY MAP CREATED HERE ON SUNDAY THIS SURVEY WAS PREPARED IN ACCORDANCE WITH THE EXISTING CODE OF PRACTICE FOR LAND SURVEYS ADOPTED BY THE NEW YORK STATE ASSOCIATION OF LICENSED LAND SURVEYORS. CERTIFICATIONS SHALL RUN ONLY TO THOSE NAMED PERSONS OR ENTITIES ON THE SURVEY MAP. THIS SURVEY MAP, ENDORSEMENTS AND/OR CERTIFICATIONS ARE NOT TRANSFERABLE TO ADDITIONAL INDIVIDUALS, INSTITUTIONS, FUTURE OWNERS AND/OR LENDERS OR SUBSEQUENT OWNERS."

THE EDUCATION LAW OF THE STATE OF NEW YORK PROHIBITS ANYONE FROM ALTERING ANYTHING ON THESE DRAWINGS AND/OR THE ACCOMPANYING SPECIFICATIONS, UNLESS IT IS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER. ALTERATIONS TO A LICENSED PROFESSIONAL ENGINEER'S SEALED WORK INCL. SEAL, DATE AND DESCRIBE THE FULL NATURE OF THE ALTERATION, INCLUDING ANALYSIS IN THE ACCOMPANYING SHOP DRAWINGS. SECTION 7209-2

RYAN S. NASHER, P.E.
N.Y.S. P.E. LIC. NO. 89066

JOHN R. ATZL
N.Y.S. L.S. LIC. NO. 50228

REVISION	DATE	DESCRIPTION

ATZL, NASHER & ZIGLER P.C.
ENGINEERS-SURVEYORS-PLANNERS
232 North Main Street
New City, New York 10956
Tel: (845) 634-4694
Fax: (845) 634-5543
E-mail: info@anzny.com
Web: www.ANZNY.com

Design Development, pllc
165 Mamaroneck Ave, Floor 2
White Plains, NY 10601
914.949.4272 t.
914.949.4278 f.

A DESIGN AND DEVELOPMENT CONSULTANCY

PROJECT:

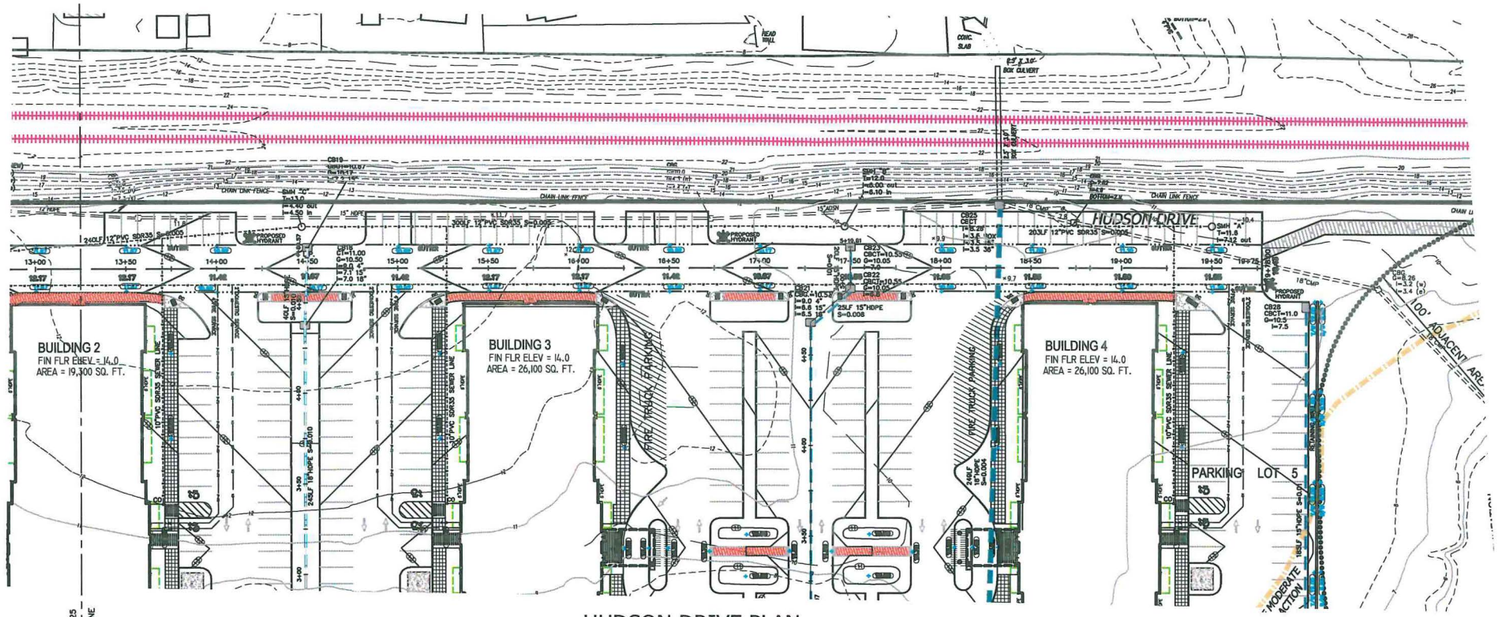
EAGLE BAY

TOWN OF STONY POINT
ROCKLAND COUNTY, NEW YORK

TITLE:

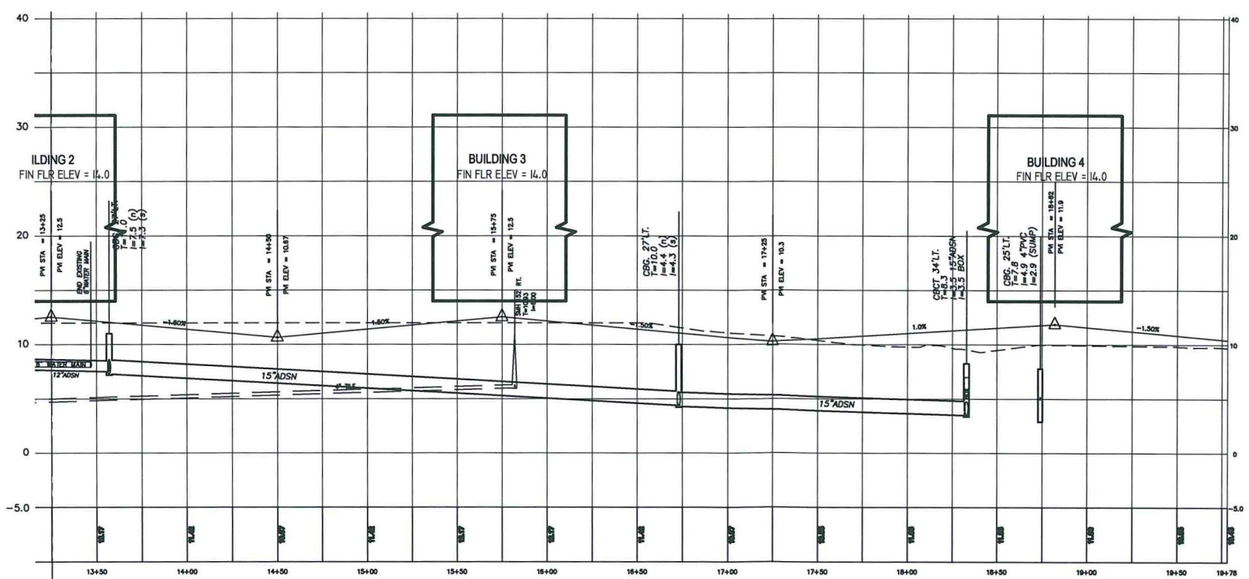
HUDSON DRIVE PROFILE
STA: 6+00 TO STA: 13+25

DRAWN BY: VC	CHECKED BY: DMZ
DATE: AUGUST 01, 2019	SCALE: AS NOTED
PROJECT NO: 1407	DRAWING NO: 9



HUDSON DRIVE PLAN

SCALE: 1"=30'/H



HUDSON DRIVE PROFILE

SCALE: 1"=30' /H, 1"=5' /V

LEGEND

EXISTING 1' CONTOUR	PROPOSED 1' CONTOUR
EXISTING 2' CONTOUR	PROPOSED 2' CONTOUR
EXISTING 10' CONTOUR	PROPOSED 10' CONTOUR
EXISTING WATERLINE	PROPOSED WATER SERVICE
EXISTING WATER VALVE	PROPOSED WATER VALVE
EXISTING FIRE HYDRANT	PROPOSED FIRE HYDRANT
EXISTING GAS LINE	PROPOSED GAS SERVICE
EXISTING GAS VALVE	PROPOSED GAS VALVE
EXISTING CATCH BASIN	PROPOSED CATCH BASIN
EXISTING STORM DRAIN LINE	PROPOSED STORM DRAIN LINE
EXISTING SEWER MANHOLE	PROPOSED SEWER CLEANOUT
EXISTING SEWER LINE	PROPOSED SEWER HOUSE CONNECTION
EXISTING SPOT ELEVATION	PROPOSED SPOT ELEVATION
EXISTING STONEWALL	PROPOSED SILT FENCE
EXISTING UTILITY POLE	PROPOSED CONSTRUCTION FENCE
EXISTING OVERHEAD WIRES	PROPOSED NEW LIGHT POLE
EXISTING SIGN	PROPOSED SIGN
EXISTING FENCE	PROPOSED ROOF DRAIN
	PROPOSED DOWN SPOUT
	PROPOSED SEWER LINE

REVISION	DATE	DESCRIPTION

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914.949.4278 f.
A DESIGN AND DEVELOPMENT CONSULTANCY

PROJECT:

EAGLE BAY

TOWN OF STONY POINT
ROCKLAND COUNTY, NEW YORK

TITLE:

HUDSON DRIVE PROFILE
STA: 13+25 TO STA: 19+78

DRAWN BY: VC	CHECKED BY: DMZ
DATE: AUGUST 01, 2019	SCALE: AS NOTED
PROJECT NO: 1407	DRAWING NO: 10

"THE EDUCATION LAW OF THE STATE OF NEW YORK PROHIBITS ANY PERSON ALTERING ANYTHING ON THESE DRAWINGS AND/OR THE SPECIFICATIONS. ADDITIONALLY, IT PROHIBITS THE ALTERATION OF ANY DOCUMENT OF A LICENSED PROFESSIONAL ENGINEER, WHICH BEARS AN ENGRAVED, INK OR EMBOSSED SEAL AND SIGNATURE. ALTERATIONS ARE MADE THE PROFESSIONAL ENGINEER WHOSE SEAL AND SIGNATURE APPEAR HEREON, WHO ASSUMES RESPONSIBILITY FOR THE ALTERATION ON THE DRAWINGS AND/OR IN THE SPECIFICATIONS. (NYS EDUCATION LAW SECTION 7209-2)"

"UNAUTHORIZED ALTERATIONS OR ADDITIONS TO A SURVEY MAP OR REPORT BEARING THE SEAL OF A LICENSED SURVEYOR IS A VIOLATION OF SECTION 7209, SUBDIVISION 2, OF THE NEW YORK STATE EDUCATION LAW."

"ONLY COPIES FROM THE ORIGINAL TRACING OF THIS SURVEY MAP MARKED WITH THE LAND SURVEYOR'S INK EMBOSSED SEAL SHALL BE CONSIDERED TO BE VALID TRUE COPIES."

"CERTIFICATION INDICATED HERE ON SIGNIFY THAT THE SURVEY HAS BEEN PREPARED IN ACCORDANCE WITH THE EXISTING CODE OF PRACTICE FOR LAND SURVEYS ADOPTED BY THE DELAWARE-HUDSON CONFERENCE, NEW YORK STATE ASSOCIATION OF LAND SURVEYORS. CERTIFICATION IS MADE SOLELY TO THE PARTIES NAMED HEREON AND NOT TO ANY SUBSEQUENT OWNERS OR OTHER PARTIES. THE SURVEY WAS PREPARED, CERTIFICATIONS ARE NOT TRANSFERABLE TO ADDITIONAL INSTITUTIONAL LENDERS, THEIR SUCCESSORS AND/OR ASSIGNS OR SUBSEQUENT OWNERS."

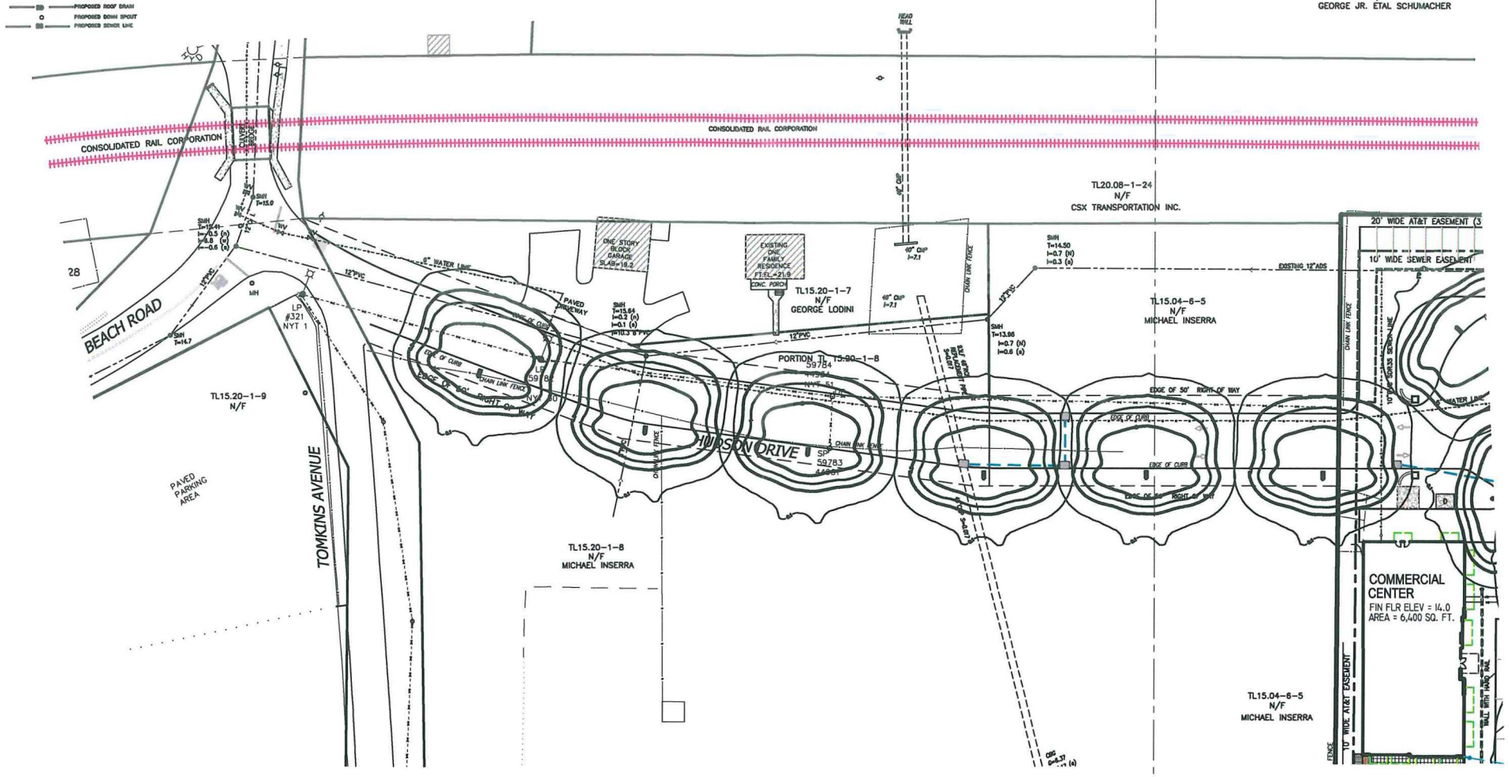
RYAN E. NASHER, P.E.
N.Y.S. P.E. LIC. NO. 89066

JOHN R. ATZL
N.Y.S. L.S. LIC. NO. 50228

LEGEND

EXISTING 1' CONTOUR
EXISTING 2' CONTOUR
EXISTING 10' CONTOUR
EXISTING WATERLINE
EXISTING WATER VALVE
EXISTING FIRE HYDRANT
EXISTING GAS LINE
EXISTING GAS VALVE
EXISTING CATCH BASIN
EXISTING STORM DRAIN LINE
EXISTING SEWER MANHOLE
EXISTING SEWER LINE
EXISTING SPOT ELEVATION
EXISTING STONEWALL
EXISTING UTILITY POLE
EXISTING OVERHEAD WIRES
EXISTING SIGN
EXISTING FENCE

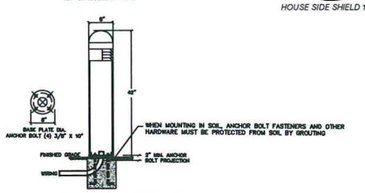
PROPOSED 1' CONTOUR
PROPOSED 2' CONTOUR
PROPOSED 10' CONTOUR
PROPOSED WATER SERVICE
PROPOSED WATER VALVE
PROPOSED FIRE HYDRANT
PROPOSED GAS SERVICE
PROPOSED GAS VALVE
PROPOSED CATCH BASIN
PROPOSED STORM DRAIN LINE
PROPOSED SEWER CLEANOUT
PROPOSED SEWER HOUSE CONNECTION
PROPOSED SPOT ELEVATION
PROPOSED SILT FENCE
PROPOSED CONSTRUCTION FENCE
PROPOSED NEW LIGHT POLE
PROPOSED SIGN
PROPOSED ROOF DRAIN
PROPOSED DOWN SPOUT
PROPOSED SEWER LINE



EXTERIOR LIGHTING LEGEND

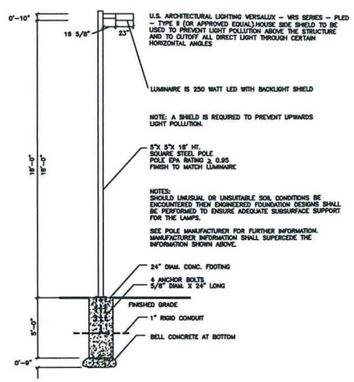
BDA-8 @ EXISTING
U.S. ARCHITECTURAL LIGHTING BDA8-CL-24LED-NW-HS180
LAMP(S): LED 1.1W 4000K LUXEON T;
condalo file "BDA8-CL-24LED-NW-HS180.ies"
24 lamp(s) per luminaire, photometry is absolute
Light Loss Factor = 1.000, watts per luminaire = 26
mounting height= 3.5 ft
number locations= 7, number luminaires= 7
kw all locations= 0.2

HOUSE SIDE SHIELD 180



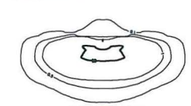
U.S. ARCHITECTURAL LIGHTING BDA-8
(OR APPROVED EQUAL)
N.T.S.

1. ALL SITE LIGHTING WILL BE INSTALLED IN COMPLIANCE WITH THE TOWN OF STONY POINT STANDARD, TO MINIMIZE ADVERSE IMPACTS TO ADJOINING PROPERTIES.
2. ALL EXTERIOR SITE LIGHTING SHALL BE SHIELDED FROM ADJACENT PUBLIC STREETS USING HOUSE SIDE SHIELDS IF GREATER THAN 2.5 FC AT RIGHT OF WAY PROPERTY LINE AND 0.5 FC AT RESIDENTIAL PROPERTY LINE.
3. ONLY THE LIGHTS AND LIGHTING LOCATIONS SHOWN ON THE PLAN ARE APPROVED FOR INSTALLATION.
4. NO ADDITIONAL LIGHTS/LIGHTING LOCATIONS WILL BE ALLOWED UNLESS FIRST APPROVED BY THE STONY POINT PLANNING BOARD.
5. ALL EXTERIOR SITE LIGHTING WILL BE DESIGNED TO PREVENT OFF-SITE GLARE.
6. ALL LIGHTING WILL BE LOCATED AT LEAST 5 FEET FROM ROAD RIGHT OF WAY.



VERSALUX VRS SERIES-PLED
(OR APPROVED EQUAL)
N.T.S.

VRS-8 @ PROPOSED
U.S. ARCHITECTURAL LIGHTING VRS-PLED-8-FR-8OLED-1050mA-NW-HS
LAMP(S): EIGHTY WHITE LIGHT EMITTING DIODES (LEDS), VERTICAL
condalo file "VRS-PLED-8-FR-8OLED-1050mA-NW-HS.IES"
80 lamp(s) per luminaire, photometry is absolute
Light Loss Factor = 1.000, watts per luminaire = 250
Outreach (from mounting pole to photometric center)= 7 in
mounting height= 24 ft
number locations= 17, number luminaires= 17
kw all locations= 4.3



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"ONLY COPIES FROM THE ORIGINAL TRACING OF THIS MAP BEARING THE LICENSED LAND SURVEYOR'S EMBOSSED SEAL SHALL BE CONSIDERED TO BE VALID TRUE COPIES."
"THE SURVEYOR CERTIFIES HERE ON SOMEY THAT THIS SURVEY WAS PREPARED IN ACCORDANCE WITH THE CURRENT CODE OF PRACTICE FOR LAND SURVEYS ADOPTED BY THE NEW YORK STATE SURVEYORS ASSOCIATION. SUCH CERTIFICATIONS SHALL RUN ONLY TO THOSE NAMED PARTIES. THIS SURVEY CERTIFICATION IS NOT TRANSFERABLE TO ADDITIONAL INDIVIDUALS, INSTITUTIONS, THEIR SUCCESSORS AND/OR ASSIGNS OR SUBSEQUENT OWNERS."

THE EDUCATION LAW OF THE STATE OF NEW YORK PROVIDES THAT ONLY A PERSON ACTING UNDER THE DIRECTION AND/OR THE ACCOMPANYING SEAL OF A LICENSED PROFESSIONAL ENGINEER MAY ALTER SPECIFICATIONS UNLESS IT IS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER. ANY PERSON ALTERING A LICENSED PROFESSIONAL ENGINEER'S SEAL MUST SIGN, SEAL, DATE AND DESCRIBE THE FULL EXTENT OF THE ALTERATION ON THE DRAWINGS AND/OR IN THE SPECIFICATIONS. (NYS EDUCATION LAW SECTION 7209-2)

RYAN P. NASHER, P.E.
N.Y.S. P.E. LIC. NO. 83066

JOHN R. ATZL
N.Y.S. R.L.S. LIC. NO. 50228

REVISION	DATE	DESCRIPTION

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Design Development, pllc
165 Mamaroneck Ave, Floor 2
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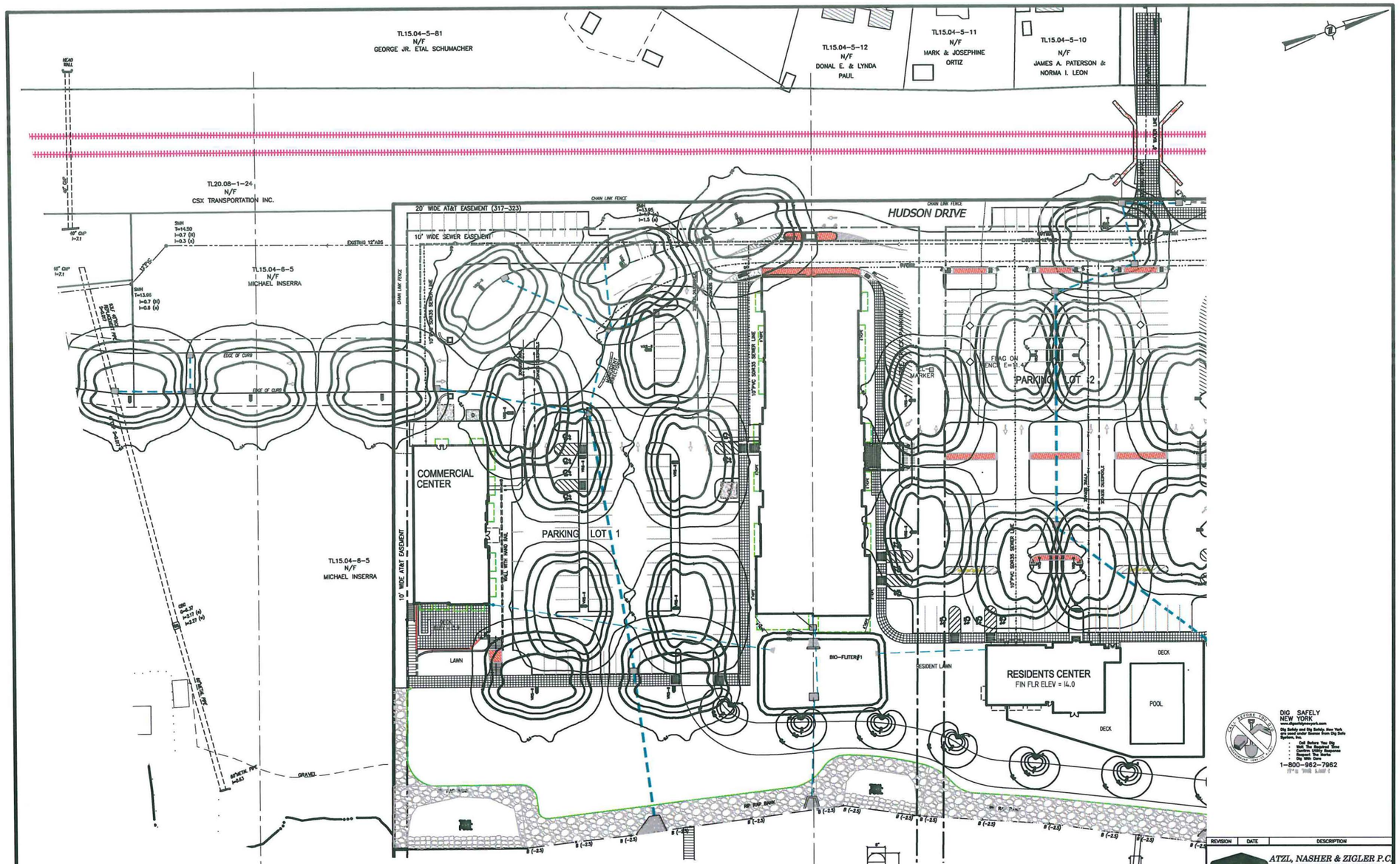
914.949.4278 f.
A DESIGN AND DEVELOPMENT CONSULTANCY

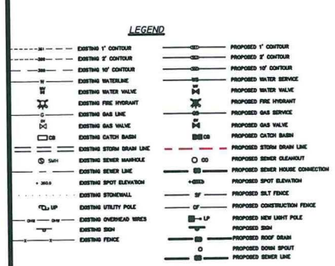
PROJECT:
EAGLE BAY

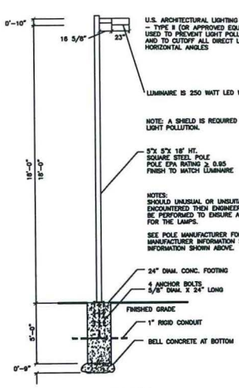
TOWN OF STONY POINT
ROCKLAND COUNTY, NEW YORK

TITLE:
LIGHTING PLAN
HUDSON DRIVE

DRAWN BY: VC	CHECKED BY: DMZ
DATE: AUGUST 01, 2019	SCALE: 1 IN. = 30 FT.
PROJECT NO: 1407	DRAWING NO: 11





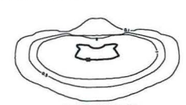


VERSALUX VRS SERIES-PLED
(OR APPROVED EQUAL)
N.T.S.

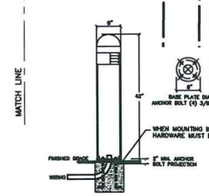
U.S. ARCHITECTURAL LIGHTING VERSALUX – VRS SERIES – PLED – TYPE II (OR APPROVED EQUAL)HOUSE SIDE SHIELD TO BE USED TO PREVENT LIGHT POLLUTION ABOVE THE STRUCTURE AND TO CUTOFF ALL DIRECT LIGHT THROUGH CERTAIN HORIZONTAL ANGLES

VRS-8 PROPOSED

U.S. ARCHITECTURAL LIGHTING VRS-PLED-8-FR-80LED-1050mA-NW-HS
LAMP(S): EIGHTY WHITE LIGHT EMITTING DIODES (LEDS), VERTICAL
candela file "VRS-PLED-8-FR-80LED-1050mA-NW-HS.IES"
80 lamp(s) per luminaire, photometry is absolute
Light Loss Factor = 1.000, watts per luminaire = 250
Outreach (from mounting axis to photometric center)= 7 in
mounting height= 24 ft
number locations= 17, number luminaires= 17
kw all locations= 4.3



TYPE II FRONT ROW



U.S. ARCHITECTURAL LIGHTING BDA-8
(OR APPROVED EQUAL)
N.T.S.

WHEN MOUNTING IN SOIL, ANCHOR BOLT FASTENERS AND OTHER HARDWARE MUST BE PROTECTED FROM SOIL BY GROUTING

HOUSE SIDE SHIELD 180

EXTERIOR LIGHTING LEGEND

BDA-8 @ EXISTING
U.S. ARCHITECTURAL LIGHTING BDA8-CL-24LED-NW-HS180
LAMP(S): LED 1.1W 4000K LUXEON T;
candela file "BDA8-CL-24LED-NW-HS180.ies"
24 lamp(s) per luminaire, photometry is absolute
Light Loss Factor = 1.000, watts per luminaire = 26
mounting height= 3.5 ft
number locations= 7, number luminaires= 7
kw all locations= 0.2

1. ALL SITE LIGHTING WILL BE INSTALLED IN COMPLIANCE WITH THE TOWN OF STONY POINT STANDARD, TO MINIMIZE ADVERSE IMPACTS TO ADJOINING PROPERTIES.
2. ALL EXTERIOR SITE LIGHTING SHALL BE SHIELDED FROM ADJACENT PUBLIC STREETS USING HOUSE SIDE SHIELDS IF GREATER THAN 2.5 FC AT RIGHT OF WAY PROPERTY LINE AND 0.5 FC AT RESIDENTIAL PROPERTY LINE.
3. ONLY THE LIGHTS AND LIGHTING LOCATIONS SHOWN ON THE PLAN ARE APPROVED FOR INSTALLATION.
4. NO ADDITIONAL LIGHTS/LIGHTING LOCATIONS WILL BE ALLOWED UNLESS FIRST APPROVED BY THE STONY POINT PLANNING BOARD.
5. ALL EXTERIOR SITE LIGHTING WILL BE DESIGNED TO PREVENT OFF-SITE GLARE.
6. ALL LIGHTING WILL BE LOCATED AT LEAST 5 FEET FROM ROAD RIGHT OF WAY.

"UNAUTHORIZED ALTERATIONS OR ADDITIONS TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S EMBOSSED SEAL IS A VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW."
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"CERTIFICATION EXPRESSED HERE ON SURVEY THAT IS NOT A CERTIFICATION TO THE ABSTRACTOR WITH THE CERTIFIED DATE OF PRELIMINARY TITLE LINES SURVEYOR'S ADOPTED BY THE SECURITY TITLE GUARANTEE AND INDEMNITY COMPANY OF NEW YORK, IS FOR ONLY TO THOSE NAMED INDIVIDUALS AND/OR INSTITUTIONS FOR WHOM THE SURVEYOR HAS PREPARED THE SURVEY AND IS NOT TRANSFERABLE TO ADDITIONAL INDIVIDUALS OR INSTITUTIONS, THEIR SUCCESSORS AND/OR ASSIGNS OR SUBSEQUENT OWNERS."

THE EDUCATION LAW OF THE STATE OF NEW YORK PROHIBITS ANY PERSON ALTERING ANYTHING ON THESE SPECIFICATIONS UNLESS IT IS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER. WHERE SUCH ALTERATION IS MADE, THE ALTERING ENGINEER MUST SIGN, SEAL, DATE AND DESCRIBE THE FULL EXTENT OF THE ALTERATION ON THE DESIGNED HAVLOR OR ENGINEERING DATA EDUCATION LAW SECTION 7209-2

R.V.D.
N.Y.S. L.S. 049066

N.Y.S. L.S. 050228

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REVISION	DATE	DESCRIPTION

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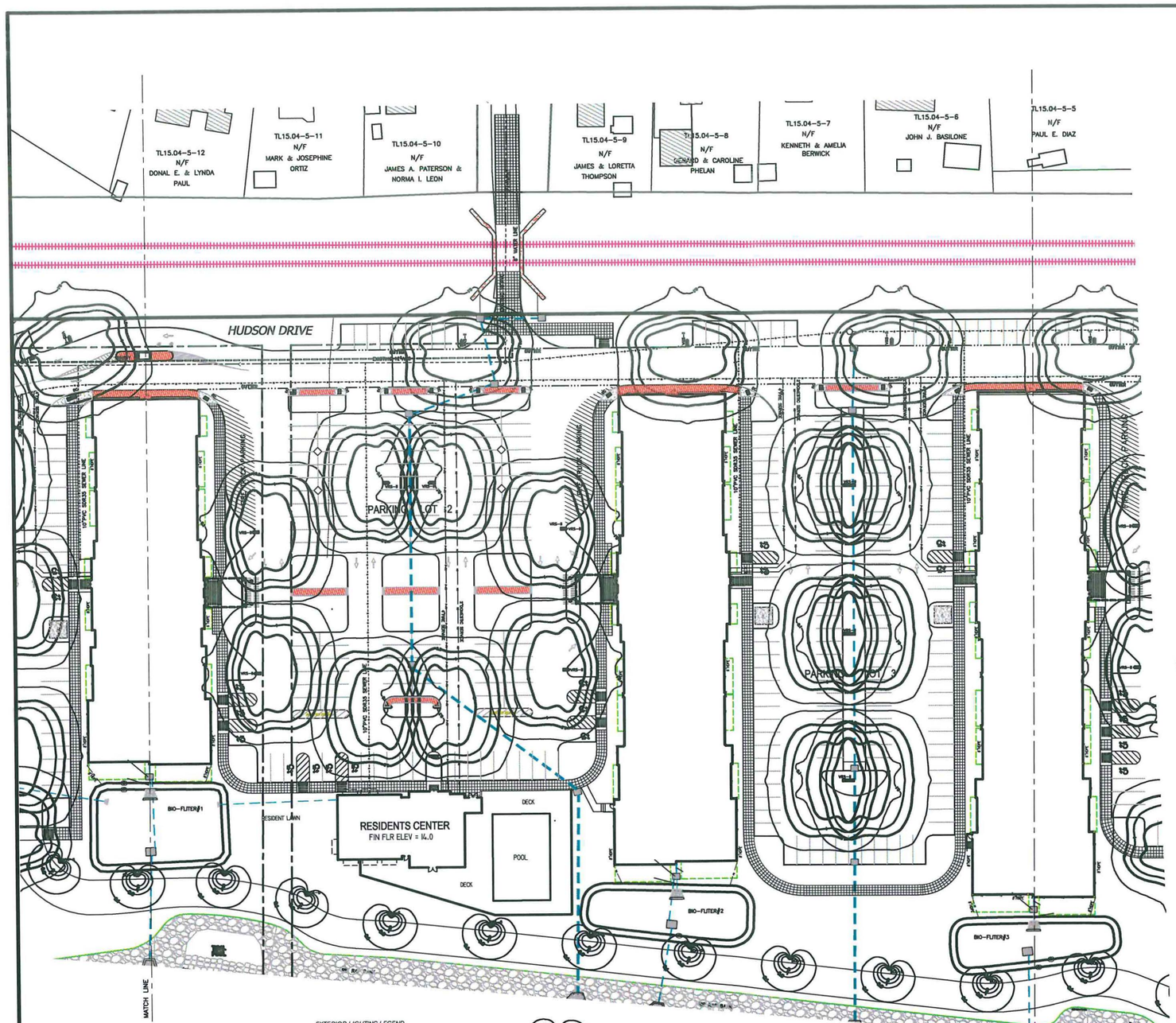
White Plains, NY 10601
914.949.4272 t.
914.949.4278 f.
A DESIGN AND DEVELOPMENT CONSULTANCY

PROJECT:
EAGLE BAY

TOWN OF STONY POINT
ROCKLAND COUNTY, NEW YORK

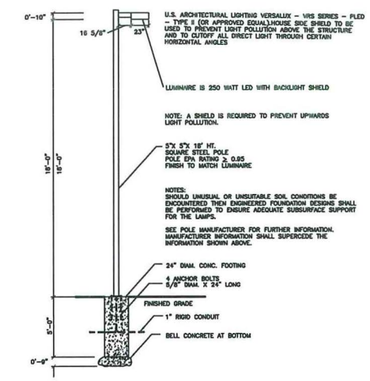
TITLE:
LIGHTING PLAN
SOUTH

DRAWN BY: VC	CHECKED BY: DMZ
DATE: AUGUST 01, 2019	SCALE: 1 IN. = 30 FT.
PROJECT NO: 1407	DRAWING NO: 12



LEGEND

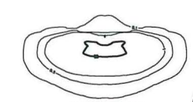
EXISTING 1' CONTOUR	PROPOSED 1' CONTOUR
EXISTING 2' CONTOUR	PROPOSED 2' CONTOUR
EXISTING 10' CONTOUR	PROPOSED 10' CONTOUR
EXISTING WATERLINE	PROPOSED WATER SERVICE
EXISTING WATER VALVE	PROPOSED WATER VALVE
EXISTING FIRE HYDRANT	PROPOSED FIRE HYDRANT
EXISTING GAS LINE	PROPOSED GAS SERVICE
EXISTING GAS VALVE	PROPOSED GAS VALVE
EXISTING CATCH BASIN	PROPOSED CATCH BASIN
EXISTING STORM DRAIN LINE	PROPOSED STORM DRAIN LINE
EXISTING SEWER MANHOLE	PROPOSED SEWER CLEANOUT
EXISTING SEWER LINE	PROPOSED SEWER HOUSE CONNECTION
EXISTING SPOT ELEVATION	PROPOSED SPOT ELEVATION
EXISTING STONEWALL	PROPOSED SILT FENCE
EXISTING UTILITY POLE	PROPOSED CONSTRUCTION FENCE
EXISTING OVERHEAD WIRES	PROPOSED NEW LIGHT POLE
EXISTING SIGN	PROPOSED SIGN
EXISTING FENCE	PROPOSED ROOF DRAIN
	PROPOSED DOWN SPOUT
	PROPOSED SEWER LINE



VERSALUX VRS SERIES-PLED
(OR APPROVED EQUAL)
N.T.S.

VRS-II
PROPOSED

U.S. ARCHITECTURAL LIGHTING VRS-PLED-II-FR-BOLED-1050mA-NW-HS
LAMP(S) EIGHTY WHITE LIGHT EMITTING DIODES (LEDS), VERTICAL
candela file "VRS-PLED-II-FR-BOLED-1050mA-NW-HS.IES"
80 lamp(s) per luminaire, photometry is absolute
Light Loss Factor = 1.000, watts per luminaire = 250
Outreach (from mounting axis to photometric center)= 7 in
mounting height= 17 ft
number locations= 17, number luminaires= 17
kw all locations= 4.3



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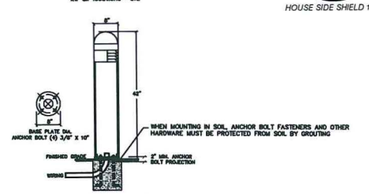
(For This Job)

EXTERIOR LIGHTING LEGEND

BOA-S @ EXISTING

U.S. ARCHITECTURAL LIGHTING BOAB-CL-24LED-NW-HS180
LAMP(S) LED 1.1W 4000K LUXEON T
candela file "BOAB-CL-24LED-NW-HS180.ies"
80 lamp(s) per luminaire, photometry is absolute
Light Loss Factor = 1.000, watts per luminaire = 26
mounting height= 3.5 ft
number locations= 7, number luminaires= 7
kw all locations= 0.2

HOUSE SIDE SHIELD 180



U.S. ARCHITECTURAL LIGHTING BOA-8
(OR APPROVED EQUAL)
N.T.S.

1. ALL SITE LIGHTING WILL BE INSTALLED IN COMPLIANCE WITH THE TOWN OF STONY POINT STANDARD, TO MINIMIZE ADVERSE IMPACTS TO ADJOINING PROPERTIES.
2. ALL EXTERIOR SITE LIGHTING SHALL BE SHIELDED FROM ADJACENT PUBLIC STREETS USING HOUSE SIDE SHIELDS IF GREATER THAN 2.5 FC AT RIGHT OF WAY PROPERTY LINE AND 0.5 FC AT RESIDENTIAL PROPERTY LINE.
3. ONLY THE LIGHTS AND LIGHTING LOCATIONS SHOWN ON THE PLAN ARE APPROVED FOR INSTALLATION.
4. NO ADDITIONAL LIGHTS/LIGHTING LOCATIONS WILL BE ALLOWED UNLESS FIRST APPROVED BY THE STONY POINT PLANNING BOARD.
5. ALL EXTERIOR SITE LIGHTING WILL BE DESIGNED TO PREVENT OFF-SITE GLARE.
6. ALL LIGHTING WILL BE LOCATED AT LEAST 5 FEET FROM ROAD RIGHT OF WAY.

THE EDUCATION LAW OF THE STATE OF NEW YORK PROHIBITS ANY PERSON ALTERING ANYTHING ON THESE DRAWINGS AND/OR SPECIFICATIONS UNLESS ACTING UNDER THE DIRECTION OF AN ARCHITECT OR PROFESSIONAL ENGINEER. WHEN SUCH ALTERATION IS MADE, THE PROFESSIONAL ENGINEER OR ARCHITECT MUST ADD HIS/HER NAME AND CITE EXTENT OF THE ALTERATION ON THE DRAWINGS AND/OR IN THE SPECIFICATIONS. (NYS EDUCATION LAW SECTION 7209-2)

"CONSTRUCTORS ALTERATIONS OR ADDITIONS TO A SURVEY MAP AND PLAN MUST BEAR THE LICENSED SURVEYOR'S ENDORSED SEAL IN VIOLATION OF SECTION 7209, SUBDIVISION 2, OF THE NEW YORK STATE EDUCATION LAW."
"ONLY COPIES FROM THE ORIGINAL ORIGINAL OF THIS SURVEY MAP MARKED WITH THE LAND SURVEYOR'S INK EMBOSSED SEAL SHALL BE CONSIDERED TO BE VALID TRUE COPIES."
"CERTIFICATION INDICATED HERE ON SUBSURVEYS THAT THE SURVEY WAS PREPARED IN ACCORDANCE WITH THE EXISTING CODE OF PRACTICE FOR LAND SURVEYORS ADOPTED BY THE DELAWARE-HUDSON CONFERENCE, NEW YORK STATE ASSOCIATION FOR CERTIFICATION SHALL RUN ONLY TO THOSE NAMED INDIVIDUALS AND/OR INSTITUTIONS FOR WHOM THE SURVEY WAS PREPARED AND TO OTHERS TO WHOM RECEIPT IS ACKNOWLEDGED, INDIVIDUALS OR INSTITUTIONS, THEIR SUCCESSORS AND/OR ASSIGNS OR SUBSEQUENT OWNERS."

RYAN M. DUFFY, P.E.
N.Y.S. PE LICENSE NO. 89066

GARY M. ZIGLER, P.E.
N.Y.S. PE LICENSE NO. 065228

REVISION	DATE	DESCRIPTION

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165 Mamaroneck Ave, Floor 2
White Plains, NY 10601
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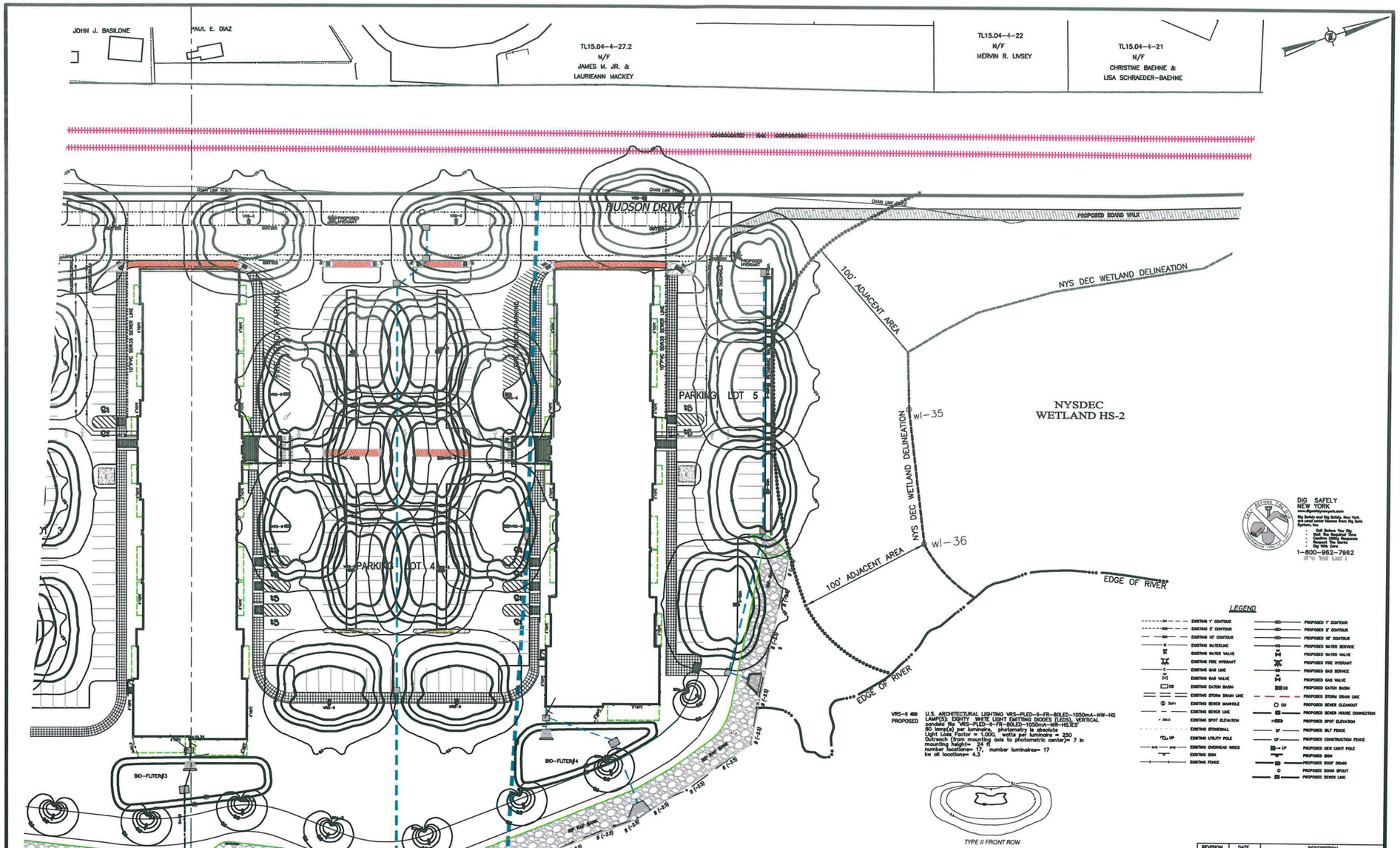
914.949.4278 f.
A DESIGN AND DEVELOPMENT CONSULTANCY

PROJECT:
EAGLE BAY

TOWN OF STONY POINT
ROCKLAND COUNTY, NEW YORK

TITLE:
LIGHTING PLAN
MIDDLE

DRAWN BY: VC	CHECKED BY: DMZ
DATE: AUGUST 01, 2019	SCALE: 1 IN. = 30 FT.
PROJECT NO: 1407	DRAWING NO: 13



LEGEND

EXISTING 1' CONTOUR	PROPOSED 1' CONTOUR
EXISTING 2' CONTOUR	PROPOSED 2' CONTOUR
EXISTING 10' CONTOUR	PROPOSED 10' CONTOUR
EXISTING WATERLINE	PROPOSED WATER SERVICE
EXISTING WATER VALVE	PROPOSED WATER VALVE
EXISTING FIRE HYDRANT	PROPOSED FIRE HYDRANT
EXISTING GAS LINE	PROPOSED GAS SERVICE
EXISTING GAS VALVE	PROPOSED GAS VALVE
EXISTING CATCH BASIN	PROPOSED CATCH BASIN
EXISTING STORM DRAIN LINE	PROPOSED STORM DRAIN LINE
EXISTING SEWER MANHOLE	PROPOSED SEWER CLEANOUT
EXISTING SEWER LINE	PROPOSED SEWER HOUSE CONNECTION
EXISTING SPOT ELEVATION	PROPOSED SPOT ELEVATION
EXISTING STONEWALL	PROPOSED SILT FENCE
EXISTING UTILITY POLE	PROPOSED CONSTRUCTION FENCE
EXISTING OVERHEAD WIRES	PROPOSED NEW LIGHT POLE
EXISTING BRM	PROPOSED BRM
EXISTING FENCE	PROPOSED ROOF DRAIN
	PROPOSED DOWN SPOUT
	PROPOSED SEWER LINE

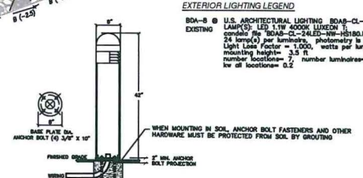
VRS-8 PROPOSED — U.S. ARCHITECTURAL LIGHTING VRS-PLED-8-FR-BOLED-1050mA-NW-HS
LAMP(S): EIGHTY WHITE LIGHT EMITTING DIODES (LEDS), VERTICAL
candela file 'VRS-PLED-8-FR-BOLED-1050mA-NW-HS.ies'
80 lamp(s) per luminaire, photometry is absolute
Light Loss Factor = 1.000, watts per luminaire = 250
Outreach (from mounting axis to photometric center)= 7 in
mounting height= 24 ft
number locations= 17, number luminaires= 17
kw all locations= 4.3

TYPE II FRONT ROW

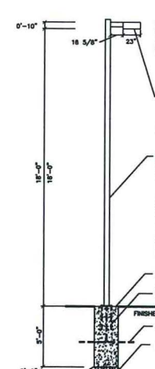
EXTERIOR LIGHTING LEGEND

BDA-8 @ EXISTING — U.S. ARCHITECTURAL LIGHTING BDA8-CL-24LED-NW-HS180
LAMP(S): LED 1.19' 4000K LUXEON
candela file 'BDA8-CL-24LED-NW-HS180.ies'
24 lamp(s) per luminaire, photometry is absolute
Light Loss Factor = 1.000, watts per luminaire = 26
mounting height= 3.5 ft
number locations= 7 number luminaires= 7
kw all locations= 0.2

HOUSE SIDE SHIELD 180



U.S. ARCHITECTURAL LIGHTING BDA-8
(OR APPROVED EQUAL)
N.T.S.



U.S. ARCHITECTURAL LIGHTING VERSALUX – VRS SERIES – PLED – TYPE 8 (OR APPROVED EQUAL).HOUSE SIDE SHIELD TO BE USED TO PREVENT LIGHT POLLUTION ABOVE THE STRUCTURE AND TO CUTOFF ALL DIRECT LIGHT THROUGH CERTAIN HORIZONTAL ANGLES

LUMINAIRE IS 250 WATT LED WITH BACKLIGHT SHIELD

NOTE: A SHIELD IS REQUIRED TO PREVENT UPWARDS LIGHT POLLUTION.

8"X 5"X 18' HT.
SQUARE STEEL POLE
POLE EPA RATING ≥ 0.95
FINISH TO MATCH LUMINAIRE

NOTES:
SHOULD UNUSUAL OR UNSUITABLE SOIL CONDITIONS BE ENCOUNTERED THEN ENGINEERED FOUNDATION DESIGNS SHALL BE PERFORMED TO ENSURE ADEQUATE SUBSURFACE SUPPORT FOR THE LAMPS.

SEE POLE MANUFACTURER FOR FURTHER INFORMATION. MANUFACTURER INFORMATION SHALL SUPERCEDE THE INFORMATION SHOWN ABOVE.

VERSALUX VRS SERIES-PLED
(OR APPROVED EQUAL)
N.T.S.

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"THE TOPOGRAPHY INDICATED HERE ON STONY POINT THIS SURVEY WAS PREPARED IN ACCORDANCE WITH THE SURVEY CODE OF PRACTICE FOR LAND SURVEYORS ADOPTED BY THE ASSOCIATION OF HUDSON VALLEY LAND SURVEYORS ASSOCIATION. SAID TOPOGRAPHY IS VALID FOR USE ONLY TO THOSE PARTIES CERTIFIED TO ON THIS SURVEY MAP. THIS SURVEY MAP WAS PREPARED EXCLUSIVELY FOR THE PARTIES CERTIFIED TO AND IS NOT TRANSFERABLE TO ADDITIONAL INDIVIDUALS, ADDITIONAL FIRM SUCCESSORS AND/OR ASSIGNS OR SUBSEQUENT OWNERS."

N.Y.S. P.E. LICENSE NO. 89066

N.Y.S. L.S. LICENSE NO. 050228

REVISION	DATE	DESCRIPTION

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A DESIGN AND DEVELOPMENT CONSULTANCY

PROJECT:
EAGLE BAY

TOWN OF STONY POINT
ROCKLAND COUNTY, NEW YORK

TITLE:
LIGHTING PLAN
NORTH

DRAWN BY: VC	CHECKED BY: DMZ
DATE: AUGUST 01, 2019	SCALE: 1 IN. = 30 FT.
PROJECT NO: 1407	DRAWING NO: 14

Material Specifications:

The allowable materials to be used in biofilter area are detailed in Table 1.

Planting Soil:

The soil shall be a uniform mix, free of stones, stumps, roots or other similar objects larger than two inches. No other materials or substances shall be mixed or dumped within the biofilter area that may be harmful to plant growth, or prove a hindrance to the planting or maintenance operations. The planting soil shall be free of noxious weeds.

The planting soil shall be tested and shall meet the following criteria:

pH range 5.2 – 7.0
organic matter 1.5 – 4%
magnesium 35 lb./ac
phosphorus P2O5 75 lb./ac
potassium K2O 85 lb./ac
soluble salts not to exceed 500 ppm

All bioretention areas shall have a minimum of one test. Each test shall consist of both the standard soil test for pH, phosphorus, and potassium and additional tests of organic matter, and soluble salts. A textural analysis is required from the site stockpiled topsoil. If topsoil is imported, then a texture analysis shall be performed for each location where the top soil was excavated. Since different labs calibrate their testing equipment differently, all testing results shall come from the same testing facility. Should the pH fall out of the acceptable range, it may be modified (higher) with lime or (lower) with iron sulfate plus sulfur.

Compaction:

It is very important to minimize compaction of both the base of the bioretention area and the required backfill. When possible, use excavation hoes to remove original soil. If bioretention areas are excavated using a loader, the contractor should use wide track or marsh track equipment, or light equipment with turf type tires. Use of equipment with narrow tracks or narrow tires, rubber tires with large lugs, or high pressure tires will cause excessive compaction resulting in reduced infiltration rates and storage volumes and is not acceptable. Compaction will significantly contribute to design failure.

Compaction can be alleviated at the base of the bioretention facility by using a primary tilling operation such as a chisel plow, ripper, or subsoiler. These tilling operations are to refracture the soil profile through the 12 inch compaction zone. Substitute methods must be approved by the engineer. Rototillers typically do not till deep enough to reduce the effects of compaction from heavy equipment.

Rototill 2 to 3 inches of sand into the base of the bioretention facility before back filling the required sand layer. Pump any ponded water before preparing (rototilling) base. When back filling the topsoil over the sand layer, first place 3 to 4 inches of topsoil over the sand, then rototill the sand/topsoil to create a gradation zone. Backfill the remainder of the topsoil to final grade.

When back filling the bioretention facility, place soil in lifts 12" or greater. Do not use heavy equipment within the bioretention basin. Heavy equipment can be used around the perimeter of the basin to supply soils and sand. Grade bioretention materials by hand or with light equipment such as a compact loader or a dozer/loader with marsh tracks.

Plant Installation:

1. Mulch around individual plants only. Shredded hardwood mulch is the only accepted mulch. Pine mulch and wood chips will float and move to the perimeter of the bioretention area during a storm event and are not acceptable. Shredded mulch must be well aged (6 to 12 months) for acceptance.
2. The plant root ball should be planted so 1/8th of the ball is above final grade surface.
3. Root stock of the plant material shall be kept moist during transport and on-site storage. The diameter of the planting pit shall be at least six inches larger than the diameter of the planting ball. Set and maintain the plant straight during the entire planting process. Thoroughly water ground bed cover after installation.
4. Trees shall be braced using 2" X 2" stakes only as necessary and for the first growing season only. Stakes are to be equally spaced on the outside of the tree ball.
5. Grasses and legume seed shall be tilled into the soil to a depth of at least one inch. Grass and legume plugs shall be planted following the non-grass ground cover planting specifications.
6. The topsoil specifications provide enough organic material to adequately supply nutrients from natural cycling. The primary function of the bioretention structure is to improve water quality. Adding fertilizers defeats, or at a minimum, impedes this goal. Only add fertilizer if wood chips or mulch is used to amend the soil. Rototill urea fertilizer at a rate of 2 pounds per 1000 square feet.

Miscellaneous:

The bioretention facility may not be constructed until all contributing drainage area has been stabilized.

TABLE 1: MATERIALS SPECIFICATIONS FOR BIOFILTER

Parameter	Specification	Size	Notes
Plantings	see your local NRCS Standards and Specifications guidance.	n/a	plantings are site-specific
Planting Soil	sand 35 – 60% silt 30 – 55% clay 10 – 25%	n/a	USDA soil types loamy sand, sandy loam or loam Mulch
Mulch	shredded hardwood		aged 6 months, minimum
Pea gravel diaphragm and curtain drain	pea gravel: ASTM D 448 ornamental stone: washed cobbles	pea gravel: No. 6 stone: 2" to 5"	
Geotextile	Class "C" apparent opening size (ASTM-D-4751) grab tensile strength (ASTM-D-4632) burst strength (ASTMD-4833)	n/a	for use as necessary beneath underdrains only

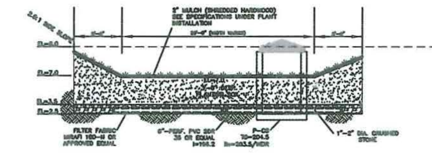
PLANTING NOTES, MAINTENANCE AND SPECIFICATION:

1. ALL PLANTING SHALL BE LOCATED, INSPECTED AND APPROVED BY A CERTIFIED LANDSCAPE ARCHITECT.
2. CONTRACTOR SHALL CHECK SOIL PH PRIOR TO START OF WORK AND AMEND AS REQUIRED TO BALANCE REQUIRED PH RANGE OF 5.2~7.0.
3. PLANTS SHALL BE MIXED IN GROUP IN ALL DESIGNATED ZONES AS SHOWN ON DRAWING.
4. PLANTS TO BE PLACED AT APPROXIMATE SPACING THROUGHOUT IN ZONES AS SHOWN ON DRAWING.
5. PLANTS TO BE PLACED IN GROUPS IN ZONES AS SHOWN ON DRAWING.
6. ALL PLANTS SHALL BE NURSERY GROWN UNLESS OTHERWISE SPECIALLY PERMITTED IN EACH INSTANT.
7. PLANTS SHALL HAVE NORMAL, WELL-DEVELOPED BRANCHES AND BE DENSELY FOLIATED WHEN IN LEAF.
8. PLANTS SHALL BE VIGOROUS AND FREE FROM DEFECTS, DISEASE, INSECT PESTS, EGGS OR LARVAE, SUN SCALES, INJURIES AND ABRASIONS OF THE BARK. THEY SHALL HAVE WELL-DEVELOPED ROOT SYSTEMS.
9. PLANTS SHALL BE CONTAINER GROWN OR BURLAP BALLED. FRESHLY DUG PLANTS, HEELED IN PLANTS OR PLANTS FROM COLD STORAGE SHALL NOT BE ACCEPTABLE.
10. MEASUREMENT OF SHRUBS SHALL BE TAKEN WHEN THEIR BRANCHES ARE IN NORMAL POSITION. THE HEIGHT AND SPREAD DIMENTION SHALL BE APPROVED BY A CERTIFIED LANDSCAPE ARCHITECT.
11. GROUND COVER PLANTS SHALL BE FURNISHED IN POTS, UNLESS OTHERWISE SPECIFIED. THE PLANT SHALL HAVE SUFFICIENT GROWTH TO HOLD SOIL IN PLACE WHEN REMOVE FROM THE POT.
12. ALL THE PLANT SHALL BE SELECTED AND PLANTED AS SPECIFIED IN THE TABULATE LIST ABOVE ACCORDING TO THE NYSDEC STORMWATER MANAGEMENT DESIGN MANUAL IN APPENDIX H.
13. PLANTING SOIL SHALL BE COMPOSED OF A MIXTURE OF ONE PART TOPSOIL AND ONE PART ROOTED MANURE OR PEAT.
14. MULCH SHALL BE IN CONFORMANCE WITH AS SPECIFIED IN NOTE #1 UNDER THE PLANT INSTALLATION GUIDELINE.
15. FERTILIZER SHALL BE A STANDARD COMMERCIAL GRADE OF ORGANIC OR INORGANIC FERTILIZER OF (5-10-5) OR APPROVED EQUAL.
16. ADDITIONAL CRUSHED STONE 1"~2" DIAMETER SHALL BE PLACED A MINIMUM OF 12" BELOW IN EXCAVATED TREE PITS BY OVER DIGGING DEEPER PITS TO A MINIMUM OF 12" DEPTH OR AS DIRECTED, IF THE NATURAL DRAINAGE IS UNSUITABLE FOR PROPER DRAINAGE FROM PITS.
17. PLANT PITS SHALL BE 2X THE WIDTH OF ROOT BALL AND 6". REMOVE EXISTING SOIL FROM PLANT PIT AND BACKFILL WITH A MIXTURE OF ONE PART PEAT HUMUS, ONE PART DEHYDRATED COW MANURE AND FOUR PARTS TOPSOIL. MIX 5-10-5 (50%) SLOW-RELEASE FERTILIZER (ROOTS OR RAPID GRO) IN ALL PLANTING BEDS AT SPECIFIED RATE. FOR EVERGREEN PLANTING ADD 1 lb. per 100 square ft. OF PLANT BED AREA OF AMMONIUM SULFATE AND SUPERPHOSPHATE.
18. MAINTENANCE OF ALL PLANTS SHALL BE REQUIRED FROM THE TIME OF PLANTING UNTIL THE INITIAL ACCEPTANCE. MAINTENANCE SHALL INCLUDE WATERING, WEEDING, TIGHTENING, AND REPAIRING, RESETTING PLANTS TO PROPER GRADES OR UPRIGHT POSITION AND REMOVAL OF DEAD MATERIALS. NO PLANTS WILL BE ACCEPTABLE UNLESS THEY SHOW A HEALTHY AND SATISFACTORY FOLIAGE CONDITION.

BIOFILTERS #1 TO #4 PLANT LIST PER NYSDEC SWMDM

PLANT NAME	SYMBOL	ZONE	INUNDATION TOLERANCE	WILDLIFE VALUE	NOTES	SIZE & REMARKS	QUANTITY
TREE							
River Birch (betula nigra)	BN	3,4,5	yes	low. good for cavity nesters.	bank erosion control. full sun	10'-12' ht. B&B	3
SHRUB							
Winterberry (Ilex verticillata)	IV	3,4,5	yes	high. cover and fruit for birds. holds berries into winter.	full sun to partial shade. seasonally flooded areas	30"-36" con.	4
Buttonbush (cephalanthus occidentalis)	CO	2,3,4,5	yes	high. ducks and shorebirds. seeds, nectar and nesting.	full sun to partial shade. will grow in dry areas.	3'-6' ht.	2
EMERGENT HERBACEOUS							
Arrowhead, Duck Potato (saggitaria latifolia)	SL	2,3	up to 1 ft.	moderate. tubers and seeds eaten by ducks	aggressive colonizer.	plant 5' o.c.	21
Soft-stem Bulrush (scirpus validus)	SV	2,3	up to 1 ft.	moderate. good cover and food.	full sun. aggressive colonizer.high pollutant removal.	plant 5' o.c.	19

ZONES 2,3: LOWEST ZONE
ZONES 3,4: MIDDLE ZONE
ZONES 5,6: OUTER ZONE



BIO-FILTER SECTION
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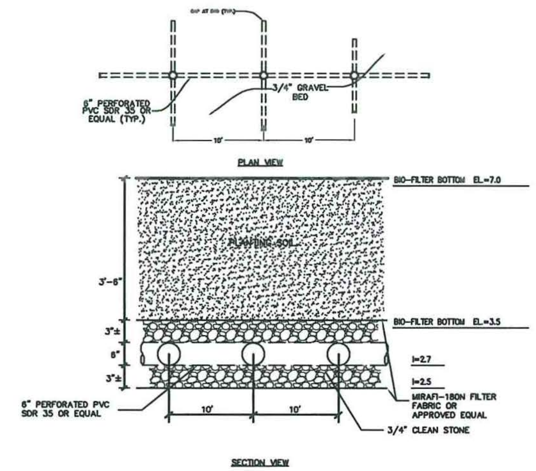
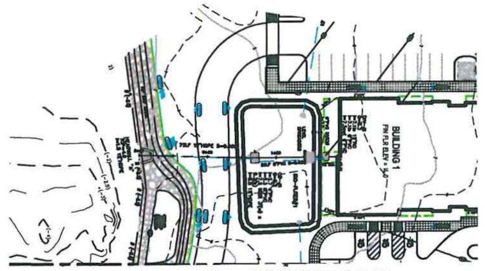


FLOOR TILE DRAIN DETAIL
SCALE: N.T.S.



BIO-FILTER #1 PLAN
SCALE: 1"=50'/H

BIO-FILTER #2 PLAN
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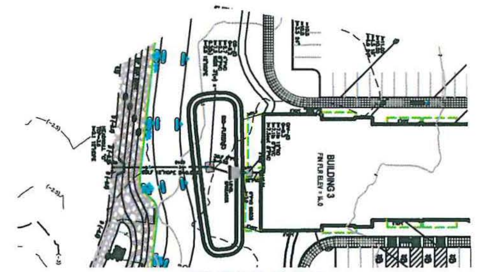

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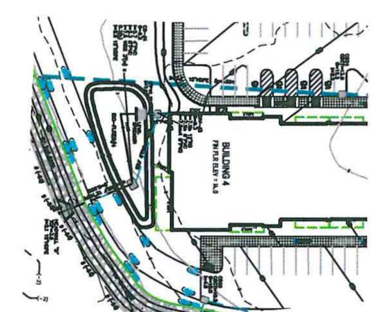

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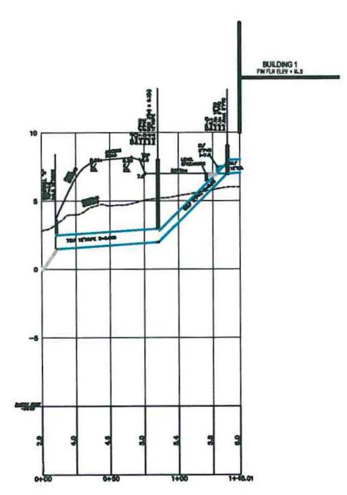
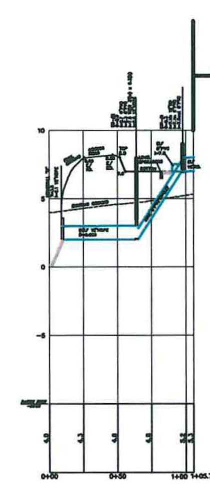


BIO-FILTER #1 PROFILE
SCALE: 1"=50' /H, 1"=5' /V



BIO-FILTER #2 PROFILE
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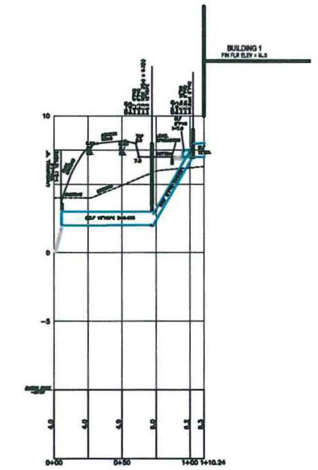

BIO-FILTER #3 PROFILE
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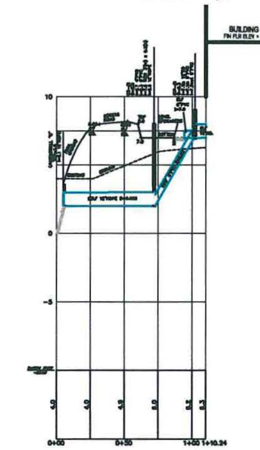

BIO-FILTER #4 PROFILE
SCALE: 1"=50' /H, 1"=5' /V

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1-800-962-7962
IT'S THE LAW !

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N.Y.S. P.E. LIC. NO. 89066

JOHN R. ATZL
N.Y.S. R.L.S. LIC. NO. 50228

REVISION	DATE	DESCRIPTION

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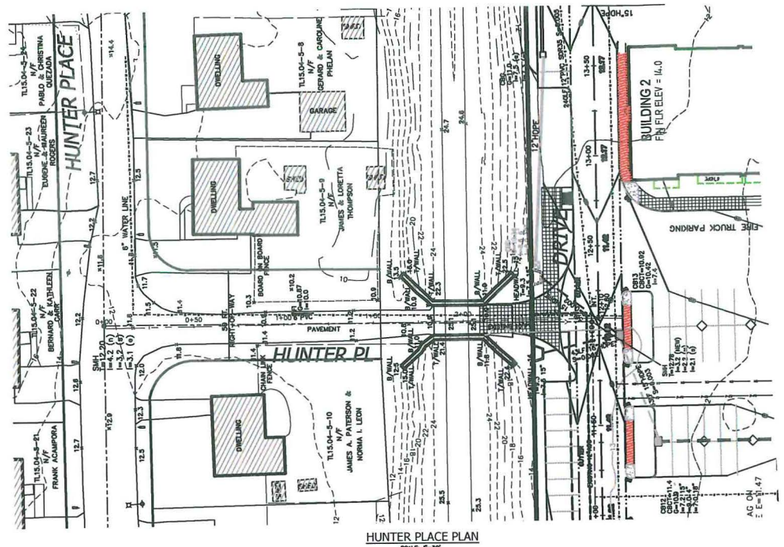
A DESIGN AND DEVELOPMENT CONSULTANCY

PROJECT:
EAGLE BAY

TOWN OF STONY POINT
ROCKLAND COUNTY, NEW YORK

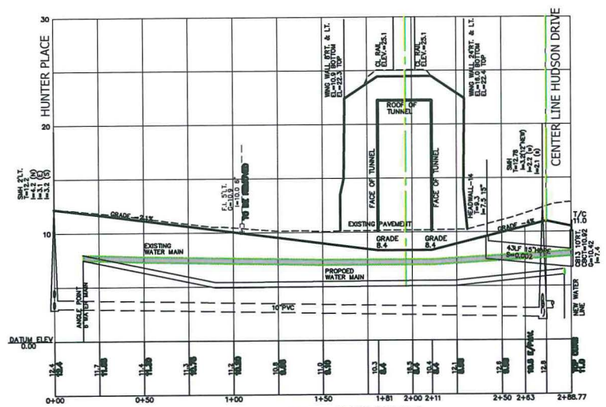
TITLE:
BIO-FILTER PROFILES

DRAWN BY: VC	CHECKED BY: DMZ
DATE: AUGUST 01, 2019	SCALE: AS NOTED
PROJECT NO: 1407	DRAWING NO: 15



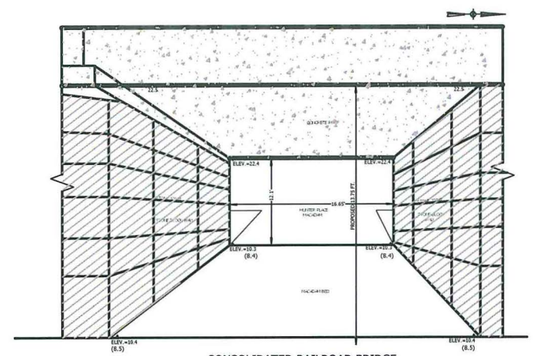
HUNTER PLACE PLAN

SCALE: 1"=30'



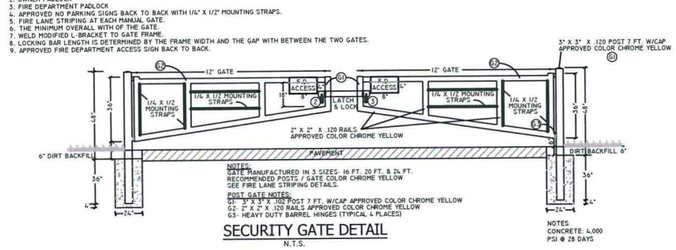
HUNTER PLACE PROFILE

SCALE: H. 1"=30' / V. 1"=5'



CONSOLIDATED RAILROAD BRIDGE
AT HUNTER PLACE

NOTES:
1. 1/4" X 1/2" MOUNTING STRAPS FOR ACCESS ENTRANCE SIGN
2. OWNER PADLOCK
3. FIRE DEPARTMENT PADLOCK
4. APPROVED NO PARKING SIGNS BACK TO BACK WITH 1/4" X 1/2" MOUNTING STRAPS.
5. FIRE LANE STRIPING AT EACH MANUAL GATE.
6. THE MINIMUM OVERALL WITH OF THE GATE.
7. WELD MODIFIED L-BRACKET TO GATE FRAME.
8. LOCKING BAR LENGTH IS DETERMINED BY THE FRAME WIDTH AND THE GAP WITH BETWEEN THE TWO GATES.
9. APPROVED FIRE DEPARTMENT ACCESS SIGN BACK TO BACK.

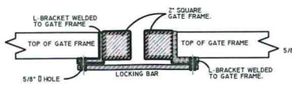


SECURITY GATE DETAIL

N.T.S.

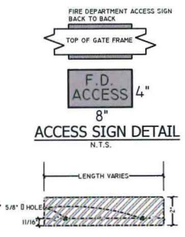
L-BRACKET DETAIL

N.T.S.



LOCKING BAR DETAIL

N.T.S.

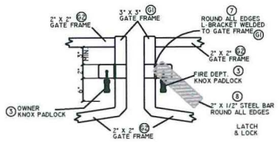


ACCESS SIGN DETAIL

N.T.S.

LOCKING BAR DETAIL

N.T.S.



REVISION	DATE	DESCRIPTION

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PROJECT:

EAGLE BAY

TOWN OF STONY POINT
ROCKLAND COUNTY, NEW YORK

TITLE:

HUNTER PLACE PROFILE

DRAWN BY: VC	CHECKED BY: DMZ
DATE: AUGUST 01, 2019	SCALE: AS NOTED
PROJECT NO: 1407	DRAWING NO: 16

KEVIN A. NASHER P.E.
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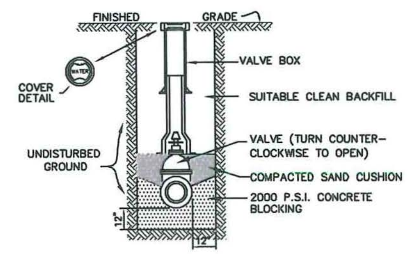
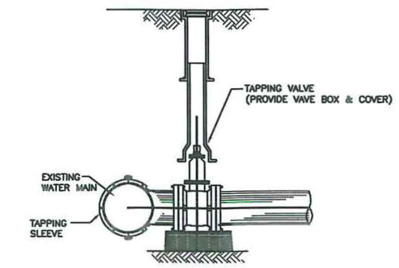


VALVE & VALVE BOX

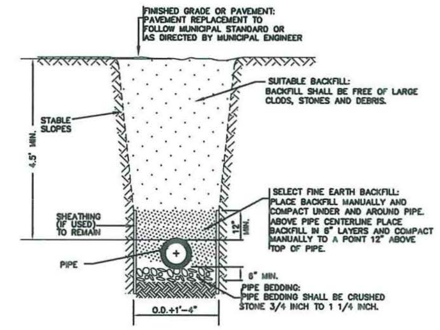
N.T.S.



WATER MAIN TAPPING DETAIL

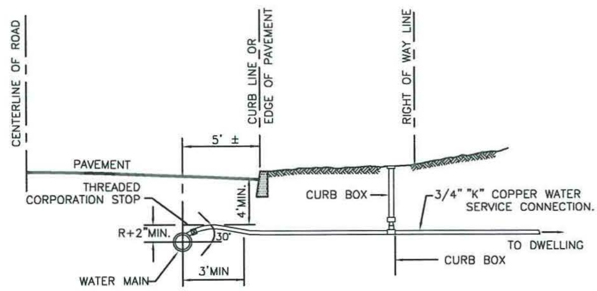
N.T.S.

EXISTING WATER MAIN	PROPOSED WATER MAIN	MECHANICAL JOINT TAPPING SLEEVE	TAPPING VALVE	DRILLING MACHINE
		(MUELLER or APPROVED EQUAL)		
8"	8"	H-615	T-2360-16	CL-12



TYPICAL TRENCH DETAIL (WATER MAIN)

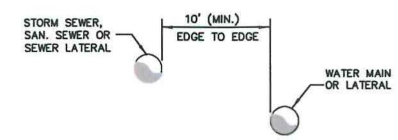
N.T.S.



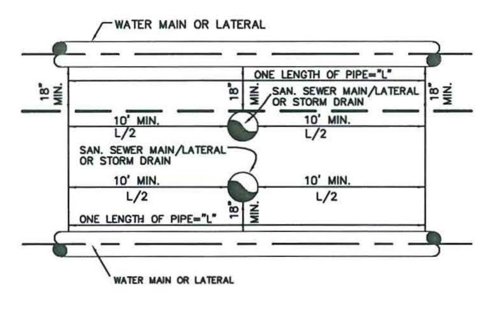
WATER SERVICE CONNECTION

N.T.S.

NOTE:
CORPORATION STOP CONNECTION WILL BE MADE ONLY AT THE TEN (10) O'CLOCK AND TWO (2) O'CLOCK LOCATIONS.



HORIZONTAL SEPARATION

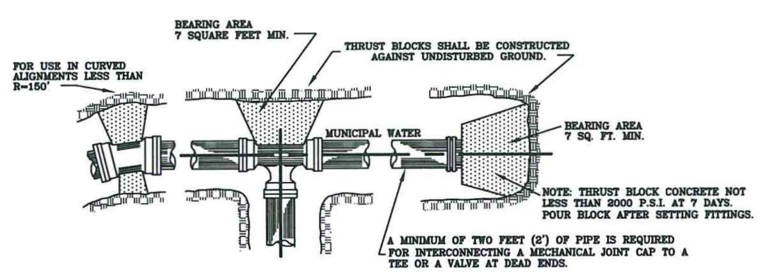


VERTICAL SEPARATION

WATER/SEWER SEPARATION REQUIREMENTS

N.T.S.

NOTE
THE SEPARATION REQUIREMENT SHALL CONFORM TO CURRENT ORANGE COUNTY DEPARTMENT OF HEALTH STATUTES, CODES, RULES, AND LAWS AS THEY APPLY. ANY DEVIATION FROM THE ABOVE SEPARATION REQUIREMENTS SHALL REQUIRE WRITTEN APPROVAL FROM THE ORANGE COUNTY DEPARTMENT OF HEALTH.

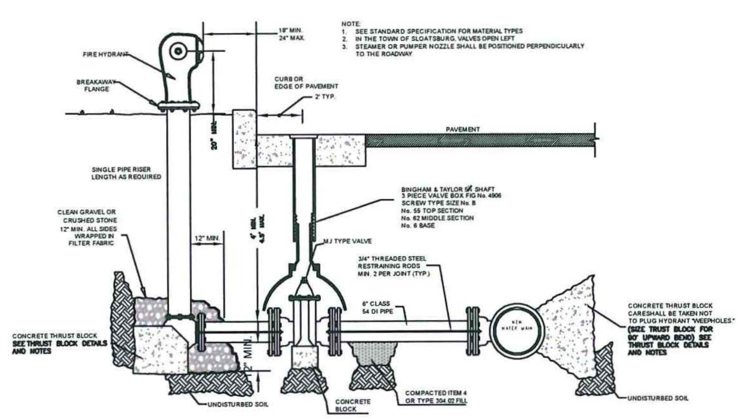


THRUST BLOCK INSTALLATION

N.T.S.

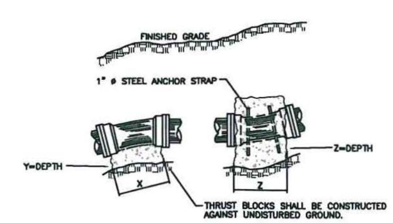
WATER DEPARTMENT SPECIFICATIONS FOR WATER DISTRIBUTION SYSTEM

1. ALL PIPE AND FITTINGS TO BE DUCTILE IRON, CEMENT LINED, CLASS 52 WITH SLIP ON JOINTS OR A JOINT ACCEPTABLE TO THE TOWN OF WALLKILL WATER DEPT. AND SHALL COMPLY WITH THE ACCEPTABLE STANDARDS AND SPECIFICATIONS UNDER ADOPTION BY THE BOARD OF TRUSTEES OF THE TOWN OF WALLKILL
2. PIPE SHALL BE INSTALLED IN ACCORDANCE WITH THE TYPE 4 METHOD AS ADOPTED BY THE A.S.A. MECHANICAL JOINT PIPE SHALL BE INSTALLED WHERE SPECIFICALLY INDICATED.
3. FIRE HYDRANTS TO BE FROM THE MUELLER CO., MUELLER CENTURION 200 OR EQUAL, SAFETY TYPE WITH BREAKABLE RINGS AND DRAIN, MAIN VALVE 5-1/4" AND HAVE ONE (1) 4-1/2" PUMPER CONNECTION AND TWO (2) 2-1/2" HOSE CONNECTIONS, OPEN LEFT, CLOSE RIGHT.
4. ALL THREADS SHALL BE NATIONAL STANDARD.
5. HYDRANTS SHALL CONFORM TO AWWA STANDARD C-502 WITH A WORKING PRESSURE OF 150 PSI.
6. VALVE STEM SHALL HAVE 1-1/2" PENTAGONAL NUT OPENING CLOCKWISE.
7. HYDRANTS SHALL BE BREAK-FLANGE CONSTRUCTION.
8. HYDRANTS SHALL HAVE A 4-1/2 FT. MINIMUM BURIAL.
9. VALVES SHALL MEET AWWA STANDARDS, WITH "O" RING SEALS.
10. VALVE BOXES SHALL BE MUELLER, OR APPROVED EQUAL. (STAMPED WATER).
11. CONCRETE BLOCKING TO BE INSTALLED AT ALL FIRE HYDRANTS, BENDS AND DEAD ENDS, TEES, AND DEFLECTION JOINTS IN EXCESS OF 10" PER 18'-0" LENGTH OF PIPE.
12. ALL SECTIONS OF WATER MAIN TO BE INSTALLED NO LESS THAN 4.5 FEET DEEP FROM FINAL GRADE: ALLOWABLE DEFLECTION 19" PER 18'-0" LENGTH OF PIPE.
13. ALL SECTIONS OF ROADWAY TO BE BROUGHT TO SUBGRADE LEVEL AND THEN TRENCHED BEFORE THE INSTALLATION OR LAYING OF ANY PIPE.
14. COMPLETED SECTIONS OF WATER MAINS TO BE TESTED AND CHECKED FOR LEAKS BEFORE FINAL ROAD SURFACING IS APPLIED.
15. ALL WATER MAINS TO BE INSTALLED AT A DISTANCE OF NO LESS THAN TEN (10) FEET FROM A SANITARY SEWER (INCLUDING BUILDING CONNECTIONS) OR STORM SEWER, HORIZONTALLY EDGE TO EDGE.
16. ALL CURB BOXES TO BE INSTALLED ALONG RIGHT-OF-WAY LINES AND WITHIN LOT SIDELINES.
17. ALL WORK IN CONNECTION WITH WATER DISTRIBUTION SYSTEM AND EXTENSIONS TO BE UNDER AND RECEIVED APPROVAL OF WATER SUPT.
18. ALL FIRE HYDRANTS TO BE LOCATED IN GRASS MALL AREA BACK OF CURB LINE CENTERED AT A DISTANCE OF TWENTY-FOUR (24) INCHES FROM FACE OF CURB LINE AND INSTALLED AT THE GROUND LINE MARK EMBOSSED ON LOWER STAND PIPE SECTION OF HYDRANT.



FIRE HYDRANT INSTALLATION DETAIL

N.T.S.

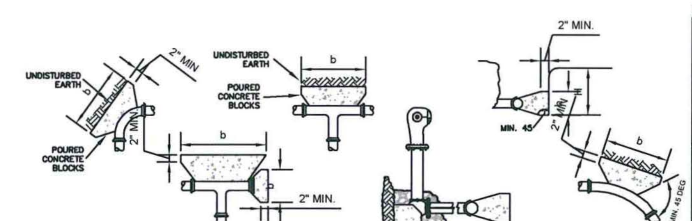


THRUST BLOCK (VERTICAL BENDS)

N.T.S.

NOTE:

PIPE SIZE	90° BEND			45° BEND			22.5° BEND		
	X	Y	Z	X	Y	Z	X	Y	Z
8"	42"	30"	60"	30"	24"	48"	24"	18"	39"



NOTES:
TO DETERMINE THRUST AT PRESSURES OTHER THAN 100 PSI, MULTIPLY THE THRUST OBTAINED IN THE TABLE BY THE RATIO OF THE PRESSURE TO 100.

BEARING AREA (SF) = THRUST FORCE AT FITTING (LB.S) / BEARING CAPACITY OF UNDISTURBED SOIL (LB.S/S.F)

GRAVITY BLOCK SIZE (C.F.) = THRUST FORCE AT FITTING (LB.S) / CONCRETE DENSITY 145 (LB.S/C.F)

NOTES:
PLACE 8 MIL. POLYETHYLENE BETWEEN CONCRETE AND FITTING (CONCRETE SHALL NOT INTERFERE WITH JOINT.)
MINIMUM CONCRETE THICKNESS SHALL BE 12 INCHES.
THE HORIZONTAL DIMENSION (b) OF THE BEARING AREA SHALL BE BETWEEN 1.0 AND 2.0 TIMES THE VERTICAL DIMENSION (h). (h <= b <= 2h)
THE VERTICAL DIMENSION (n) OF THE BEARING AREA SHALL BE EQUAL TO ONE-HALF. THE TOTAL DEPTH (H) TO THE BOTTOM OF THE THRUST BLOCK BUT NOT LESS THAN THE OUTSIDE DIAMETER (Do) OF THE FITTING (Do < h <= H/2).
THRUST BLOCK ORIENTATION SHALL BE SUCH THAT THE CENTER OF FITTING CORRESPONDS WITH THE CENTER OF THE THRUST BLOCK.
THE MINIMUM ALLOWABLE ANGLE (EITHER VERTICAL OR HORIZONTAL) SHALL BE 45 DEGREES.

RESULTANT THRUST FORCE AT FITTINGS AT 100 PSI WATER PRESSURE

NOM. DIA. (IN)	PIPE DEAD END	90 BEND	45° BEND	22 1/2° BEND	11 1/4° BEND
3	1,232	1,742	943	481	241
4	1,810	2,559	1,385	706	355
* 6	3,739	5,288	2,862	1,459	733
8	6,433	9,097	4,923	2,510	1,261
10	9,677	13,685	7,406	3,776	1,897
12	13,685	19,353	10,474	5,340	2,683
14	18,385	26,001	14,072	7,174	3,604
16	23,779	33,628	18,199	9,278	4,661
18	29,865	42,235	22,858	11,653	5,855
20	36,644	51,822	28,046	14,298	7,183
24	52,279	73,934	40,013	20,398	10,249
30	80,425	113,738	61,554	31,380	15,766
36	115,209	162,931	88,177	44,952	22,585
42	155,528	219,950	119,036	60,684	30,489
48	202,683	280,637	155,127	79,083	39,733
54	260,214	367,999	199,160	101,531	51,011
60	298,121	421,606	228,172	116,321	58,442
64	338,707	479,004	259,235	132,157	66,398

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JOHN R. ATZL
N.Y.S. P.E.S. LIC. NO. 50228

REVISION	DATE	DESCRIPTION

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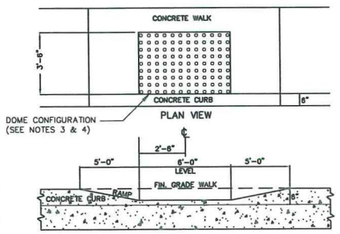
A DESIGN AND DEVELOPMENT CONSULTANCY

PROJECT:
EAGLE BAY

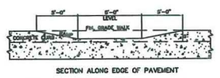
TOWN OF STONY POINT
ROCKLAND COUNTY, NEW YORK

TITLE:
WATER DETAILS

DRAWN BY: VC	CHECKED BY: DMZ
DATE: AUGUST 01, 2019	SCALE: N.T.S.
PROJECT NO: 1407	DRAWING NO: 17



DROP CURB AND TACTILE WARNING STRIP DETAIL
N.T.S.



DROP CURB AND SIDEWALK RAMP DETAIL
N.T.S.

NOTES:

1. THE DETAILS PROVIDED ARE NOT DRAWN TO SCALE. THE QUANTITY OF DOMES DEPICTED ON THE DETECTABLE WARNING UNIT (THE DOMES AND THE ENTIRE 24" OR 610 mm LEVEL SURFACE) IS FOR ILLUSTRATION ONLY.

DETECTABLE WARNING UNIT DIMENSIONS:

2. THE SIZE OF THE DETECTABLE WARNING FIELD SHALL BE 24" IN THE DIRECTION OF TRAVEL AND SHALL EXTEND THE FULL WIDTH OF THE CURB RAMP OR FLUSH SURFACE, EXCLUSIVE OF SIDE FLARES.

DOME ALIGNMENT:

3. THE ROWS OF DOMES SHALL BE ALIGNED TO BE PERPENDICULAR OR RADIAL TO THE GRADE BREAK BETWEEN THE RAMP RANGING OR CURB RAMP AND THE STREET.

4. WHERE DOMES ARE ARRAYED RADIALLY THEY MAY DIFFER IN DIAMETER AND CENTER-TO-CENTER SPACING WITHIN THE RANGES SPECIFIED ON THIS SHEET.

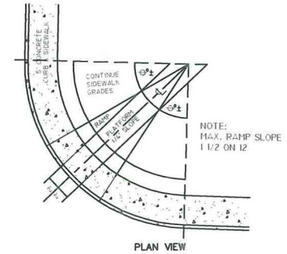
COLOR REQUIREMENTS:

5. THE DETECTABLE WARNING FIELD SHALL BE THE COLOR SPECIFIED IN THE CONTRACT DOCUMENTS OR MEET THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS.

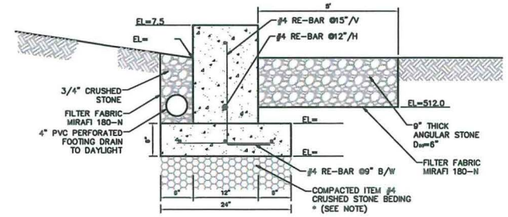
DETECTABLE WARNINGS LOCATIONS:

6. DETECTABLE WARNINGS SHALL BE LOCATED SO THAT THE EDGE OR CORNER OF THE WARNING FIELD NEAREST TO THE ROADWAY IS 5" TO 9" FROM THE FRONT OF THE CURB OR THE ROADWAY EDGE (12" WHERE TRAVERSABLE CURB IS USED).

7. THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 6'-0" MINIMUM AND 15'-0" MAXIMUM FROM THE CENTERLINE OF THE NEAREST RAIL.

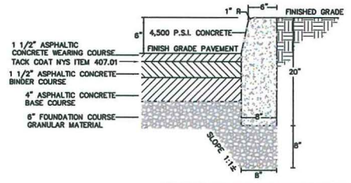


DROP CURB AND SIDEWALK RAMP DETAIL
N.T.S.

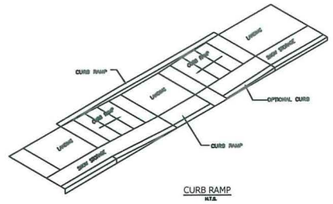


NOTE:
COMPACTION SHALL BE TO 95% OF MAXIMUM STANDARD PROCTOR DENSITY (92% MODIFIED ASTMD-1557)

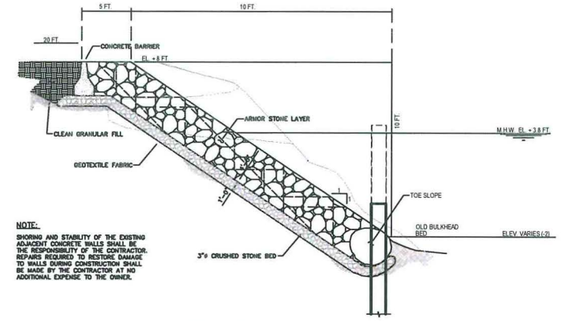
LEVEL SPREADER DETAIL
N.T.S.



ASPHALTIC CONCRETE PAVEMENT & CONCRETE CURB DETAIL ON SITE
N.T.S.

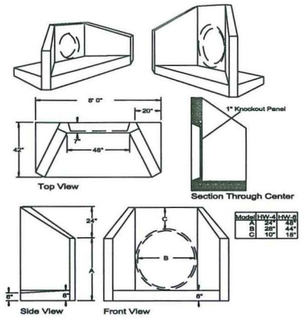


CURB RAMP
N.T.S.



NOTE:
SHORING AND STABILITY OF THE EXISTING ADJACENT CONCRETE WALLS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. REPAIRS REQUIRED TO RESTORE DAMAGE TO WALLS DURING CONSTRUCTION SHALL BE MADE BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER.

SHORELINE STABILIZATION DETAIL
SCALE: N.T.S.



Model	HW-4	HW-6
A	24"	24"
B	28"	44"
C	10"	16"

SPECIFICATIONS

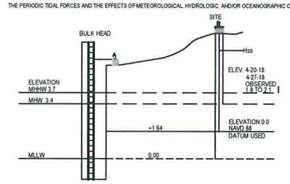
Concrete Min. Strength: 4,000 psi at 28 days
Reinforcement: #4 Rebar / ASTM A615
Air Entrainment: 6%
Pipe Connection: Mortar or grout
Pipe Range: up to 36" ID
Weight = 4,400 lbs or 8,800 lbs
Load Rating: H20 / ASTM C857

PRECAST HEADWALLS
N.T.S.

NATIONAL TIDE DATUM EPOCH
EAGLE BAY

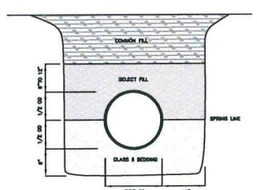
DEFINITION

MEAN HIGH WATER (MHW) IS THE AVERAGE OF ALL THE HIGH WATER HEIGHTS OBSERVED OVER A PERIOD OF SEVERAL YEARS FOR EXAMPLE, IN THE UNITED STATES THIS PERIOD SPANS 19 YEARS AND IS REFERRED TO AS THE NATIONAL TIDAL DATUM EPOCH. HIGH WATER IS THE MAXIMUM HEIGHT REACHED BY A RISING TIDE. THE HIGH WATER IS DUE TO THE PERIODIC TIDAL FORCES AND THE EFFECTS OF METEOROLOGICAL, HYDROLOGIC, AND/OR OCEANOGRAPHIC CONDITIONS.

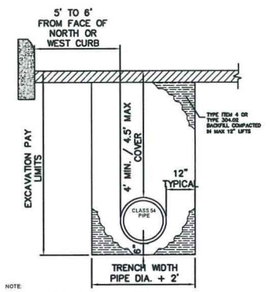


DATUM		DESCRIPTION
MLLW	=	MEAN LOWER-LOW WATER
MHHW	=	MEAN HIGHER-HIGH WATER
MHW	=	MEAN HIGH WATER
NAVD88	=	NORTH AMERICAN VERTICAL DATUM OF 1988

NOTE:
PRIOR TO CONSTRUCTIONS FINAL DESIGN PLANS / SHOP DRAWINGS FOR STRUCTURES WILL BE PROVIDED TO THE TOWN FOR ALL ON SITE WORK



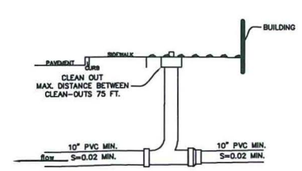
DRAINAGE TRENCH DETAIL
N.T.S.



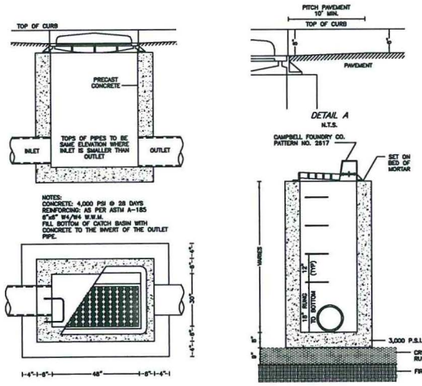
NOTE:

1. BACKFILL SHALL BE PLACED IN MINIMUM 12" LIFTS AND COMPACTED USING MECHANICAL MEANS OF COMPACTION OR AS APPROVED BY SUIZ WATER.
2. WOOD BLOCKING SHALL NOT BE USED BENEATH THE PIPE AS A MEANS OF SETTING PIPE.
3. ROCK AND SOIL EXCAVATION PAY LIMITS SHALL BE BASED ON 4 FEET OF DEPTH, PLUS THE DIAMETER OF PIPE PLUS 6 INCHES OF BEDDING. THE TRENCH WIDTH SHALL BE BASED ON THE PIPE DIAMETER PLUS 24 INCHES. COSTS ASSOCIATED WITH OVER EXCAVATION SHALL BE AT THE CONTRACTORS EXPENSE.
4. THE COST FOR CONSTRUCTION OF NEW ROADWAYS SHALL NOT BE INCLUDED IN THE CONTRACTORS COST.

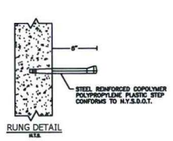
TRENCHING IN PROPOSED PRIVATE ROADWAY
N.T.S.



TYPICAL SEWER CONNECTION DETAIL
NTS



PRECAST STANDARD CATCH BASIN DETAIL
(NOT TO SCALE)



RUNG DETAIL
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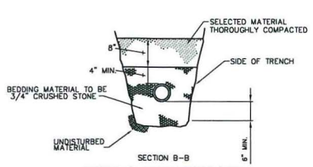

BUILDING CONNECTION TRENCH DETAIL
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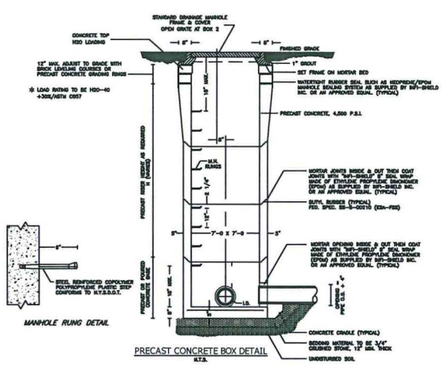

PRECAST CONCRETE BOX DETAIL
N.T.S.

STATE OF NEW YORK — KYLE S. NASHER — N.Y.S. P.E. LICENSE NO. 89066

STATE OF NEW YORK — JOHN P. ATZL — N.Y.S. P.E. LICENSE NO. 60228

REVISION	DATE	DESCRIPTION

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A DESIGN AND DEVELOPMENT CONSULTANCY

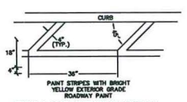
PROJECT:
EAGLE BAY

TOWN OF STONY POINT
ROCKLAND COUNTY, NEW YORK

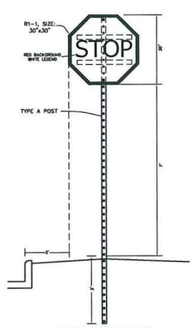
TITLE:
DRAINAGE AND SEWER DETAILS

DRAWN BY: VC	CHECKED BY: DMZ
DATE: AUGUST 01, 2019	SCALE: N.T.S.
PROJECT NO: 1407	DRAWING NO: 18

SIGN FOR FIRE LANES
N.T.S.
(3)



FIRE LANE STRIPING DETAIL
N.T.S.

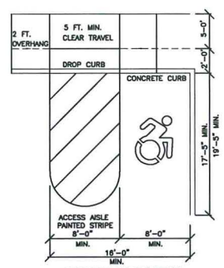


STOP SIGN DETAIL
N.T.S.

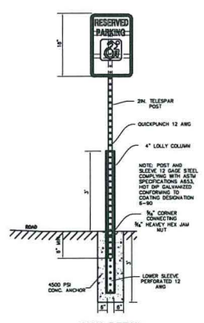
R1-1

Sign No.	Size	Border	Letter Size and Series
	30" X 30"	3/4"	10"-C

STOP SIGN DETAIL
N.T.S.
(1)



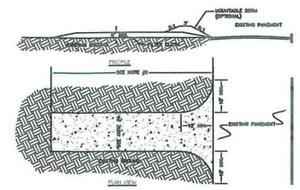
ACCESSIBLE PARKING DETAIL
N.T.S.



SIGN DETAIL
N.T.S.

SIGN FOR HANDICAP PARKING SPACE
N.T.S.
(4)

SIGN FOR NO PARKING ZONE
N.T.S.
(2)



DETAIL #1 CONSTRUCTION ENTRANCE
N.T.S.

SPECIFICATIONS FOR CONSTRUCTION ENTRANCE

1. STONE SIZE – USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH – NOT LESS THAN 20 FT. (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FT. MINIMUM LENTH SHOULD APPLY).
3. THICKNESS – NOT LESS THAN 6 IN.
4. WIDTH – 10 FT. MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS AND EGRESS OCCUR. 24 FT. 5" SINGLE ENTRANCE TO SITE.
5. FILTER CLOTH – WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO THE PLACEMENT OF STONE.
6. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAYS. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHTS-OF-WAYS MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS TO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

EROSION CONTROL PHASING

PHASE I – IMMEDIATELY AFTER CLEARING

1) STABILIZED CONSTRUCTION ENTRANCE (DETAIL #1)
2) SILT FENCING (DETAIL #2)
3) TEMPORARILY BLOCK 30"RCP BYPASS PUMP STREAM FROM CB IN ROAD TO 36" PIPE ON EAST SIDE OF PROPERTY
4) INSTALL NEW DRAINAGE SYSTEM AND STRUCTURES.
5) REMOVE TEMPORARY PLUGS.

PHASE II – IMMEDIATELY FOLLOWING INSTALLATION OF SEWER & DRAINAGE

1) STORM INLET TRAP (DETAIL #5) AROUND ALL CATCH BASINS

PHASE III – IMMEDIATELY FOLLOWING PAVING OF ROADWAY & PARKING LOT

1) CURB INLET PROTECTION (DETAIL #4) AROUND ALL CATCH BASINS IN ROADWAY & PARKING AREAS.
NOTE: STORM INLET PROTECTION (DETAIL #3) ARE TO REMAIN FOR FIELD INLET & OUTLET STRUCTURES IN TEMPORARY SEDIMENT BASINS.

SEDIMENT & EROSION CONTROL NOTES

FABRIC FENCE WILL BE INSTALLED ALONG THE PROPOSED ROAD AND THE ADJACENT PROPERTY OWNERS AND ALL DISTURBED AREAS.

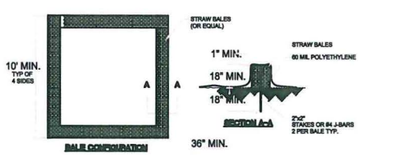
TEMPORARY SEEDING SHALL BE APPLIED TO DISTURBED AREAS THAT ARE LEFT BARE FOR 15 DAYS UNLESS CONSTRUCTION WILL BE BEGIN WITHIN 30 DAYS. IF CONSTRUCTION IS SUSPENDED OR COMPLETED, AREAS SHALL BE SEEDED OR MULCHED IMMEDIATELY.

STRUCTURAL MEASURES MUST BE MAINTAINED TO BE EFFECTIVE. IN GENERAL, THESE MEASURES MUST BE PERIODICALLY INSPECTED TO INSURE STRUCTURAL INTEGRITY, DETECT VANDALISM DAMAGE, AND FOR MAINTENANCE AND REPAIR WHENEVER NECESSARY.

A STABILIZED CONSTRUCTION ENTRANCE SHALL BE INSTALLED AT THE BEGINNING OF THE PROPOSED ROAD.

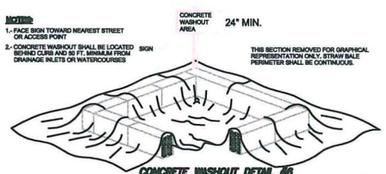
MACADAM SURFACES SHALL BE SWEPT "BROOM CLEAN" AT THE END OF EACH DAY DURING CONSTRUCTION.

CONSTRUCTION EQUIPMENT SHALL BE LIMITED TO AREAS WITHIN THE SILT FENCE SEDIMENT PROTECTION AREA.



BALE CONFIGURATION

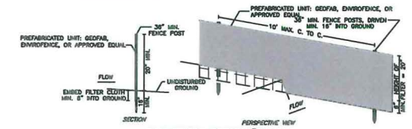
NOTES:
1.- FACE SIGN TOWARD NEAREST STREET OR ACCESS POINT
2.- CONCRETE WASHOUT SHALL BE LOCATED BEHIND CURB AND 50 FT. MINIMUM FROM DRAINAGE INLETS OR WATERCOURSES



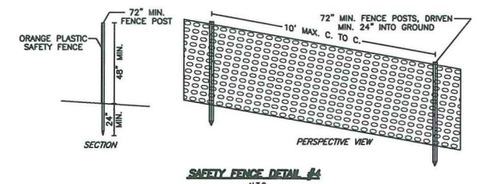
CONCRETE WASHOUT DETAIL #6
N.T.S.

CONSTRUCTION NOTES FOR PRE FABRICATED SILT FENCE

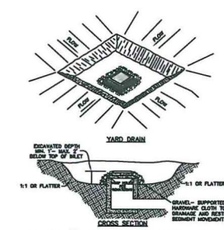
1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER T OR U TYPE OR HARDWOOD.
2. FILTER CLOTH TO BE TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 14 1/2 GAUGE, 2" MAXIMUM MESH OPENING.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N, OR APPROVED EQUIVALENT.
4. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUIVALENT.
5. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.



SILT FENCE DETAIL #2
N.T.S.



SAFETY FENCE DETAIL #4
N.T.S.



DETAIL #5 STORM INLET PROTECTION
N.T.S.

SPECIFICATIONS FOR STORM INLET PROTECTION

1. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A STORAGE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
2. THE VOLUME OF SEDIMENT STORAGE SHALL BE 1800 CUBIC FEET PER ACRE OF CONTRIBUTORY DRAINAGE.
3. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
4. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION SHALL BE MINIMIZED.
5. THE SEDIMENT TRAP SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE CONSTRUCTED DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
6. ALL CUT SLOPES SHALL BE 1:1 OR FLATTER.

REVISION	DATE	DESCRIPTION

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PROJECT:
EAGLE BAY

TOWN OF STONY POINT
ROCKLAND COUNTY, NEW YORK

TITLE:
EROSION CONTROL DETAILS AND SIGNAGE DETAILS

DRAWN BY: VC	CHECKED BY: DMZ
DATE: AUGUST 01, 2019	SCALE: N.T.S.
PROJECT NO: 1407	DRAWING NO: 19

RYAN A. NASHER, P.E.
N.Y.S. P.E. LIC. NO. 69066

JOHN R. ATZI
N.Y.S. L.S. LIC. NO. 50228

EAGLE BAY

TOWN OF STONY POINT
ROCKLAND COUNTY
NEW YORK

SECTION 2:

STORMWATER SYSTEM DESIGN REPORT COMPLYING WITH NYS STORMWATER MANAGEMENT DESIGN MANUAL JANUARY 2015

BY

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August 02, 2019

Town of Stony Point Planning Board
74 E. Main Street, Stony Point, NY 10980

Att.: John O'Rourke, P.E.
Town Engineer

Re: Eagle Bay (1407)
Town of Stony Point
Rockland County, New York

Sub: Hydraulic and hydrological study

1. INTRODUCTION:

The following drainage study has been prepared for the above mentioned project in order to calculate the net increase of peak runoff and to provide water quality mitigation for the proposed development in Town of Stony Point, Rockland County, New York. The drainage area is 14.96 acres and it disturbs the entire site (14.96 acres). Since the disturbed area is greater than 1 acre, general construction permit coverage is required according to the NYSDEC 2015 version of design manual.

This is a redevelopment project. The existing project site consists of buildings, marina, paved area, gravel roads as well as grass cover. The site proposes to construct new buildings, parking lot, access road and grass area.

2. SITE LOCATION:

The project is located along western and eastern sides of Hudson Drive and on west bank of Hudson River, and in Town of Stony Point, Rockland County, New York.

3. HYDROLOGICAL SOIL GROUPS:

The soil symbol, name and Hydrological Soil Group are shown in the following table.

Soil Symbol	Soil Name	Hydrological Soil Group	Reference Page No.*
Uw	Udorthents, wet substratum	C/D**	42

* Soil Survey of Rockland County, New York, United States Department of Agriculture Soil Conservation Service with Cornell University, October 1990.
**Due to poor to very poor nature of the soil drainage, the Hydrological Soil Group is considered C/D.

This unit consists of somewhat poorly drained to very poorly drained soils that have been altered mainly by filling. The unit is mainly in low areas, such as depressions, drainageways, and tidal marshes. The texture of the fill ranges from sand to silt loam. The areas are commonly are rectangular and range from 5 to 50 acres. Slope range from 0 to 15 percent. The fill material on this unit is mainly more than 20 inches thick, and much of it is manmade material.

4. EXISTING CONDITION:

The site has one watershed (WS#1). The existing drainage area contains buildings, access roads, parking areas, gravel paved areas, and landscaped cover. WS#1 has an area of 14.96 acres. The runoff flows the general slope of this drainage area from west to east towards the bulkheads along the Hudson River (P.O.I.#1).

The delineation of the drainage area and drainage pattern is shown on the existing condition drainage map "E-1".

5. DEVELOPED CONDITION:

The developed site has two watersheds (WS#1A and WS#1B). The drainage area land cover in the developed condition consists of buildings, parking areas, roads, paved zones, and landscaped areas. The total drainage area remains the same after the proposed development (14.96 acres).

The peak flow from the developed site will be collected through the proposed catch basins and stormwater drainage pipes and will be eventually conveyed and discharged to Hudson River (P.O.I.#1). The delineation of the drainage area and drainage pattern is shown on the developed condition drainage map "D-1".

6. DRAINAGE STUDY

Upon completion of the project, the total impervious surface cover inside the drainage area will be increased from 11.6 acres to 11.8 acres. Therefore, the runoff from the site will be increased.

7. MITIGATION:

According to the New York State Stormwater Management Design Manual dated January 2015, the water quantity mitigation is not required since the project site is a watershed that is located within the drainage basin of Hudson River, which is a 5th order stream. However, since the disturbed area is greater than 1 acre (14.96 acres), water quality mitigation needs to be addressed. In order to mitigate the impact of the proposed redevelopment, following measures have been proposed to provide 100% WQv required:

- **Four (4) Bio-Filter structures to provide the required WQv.**

The summary flow table of 1, 10, and 100 year storm peak runoff for existing and developed conditions and calculations, using HydroCad, and drainage maps (E-1 and D-1) are attached for your reference.

Feel free to contact me if you have further questions or comments regarding this submittal. Thank you.

Very truly yours,

STATE OF NEW YORK
RYAN A. NASHER
LICENSED PROFESSIONAL ENGINEER
89066

Ryan A. Nasher, P.E.

P:\STORMWATER MANAGEMENT\1407\SWPPP\SECTION 2 - DRAINAGE\1407 DRAINAGE NARRATIVE-Summary Table-Location Maps.docx

EAGLE BAY

TOWN OF STONY POINT
ROCKLAND COUNTY
NEW YORK

SUMMARY TABLE

BY

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SUMMARY FLOW TABLE

SUMMARY FLOW TABLE: 1, 10, & 100 YEAR STORMS PEAK RUNOFF

STORM FREQUENCY (YEAR)	EXISTING CONDITION PEAK FLOW (CFS) (PER HYDROCAD)	DEVELOPED CONDITION PEAK FLOW AFTER ROUTING (CFS) (PER HYDROCAD)	% FLOW CHANGE	REMARK
1	28.87	40.60	41%	*
10	59.24	79.90	35%	*
100	110.84	146.76	32%	*

* Note: Since the drainage area is located within the drainage basin of a 5th order stream (Hudson River), water quantity mitigation is not required, however, and water quality needs to be mitigated.

EAGLE BAY

TOWN OF STONY POINT
ROCKLAND COUNTY
NEW YORK

LOCATION MAPS

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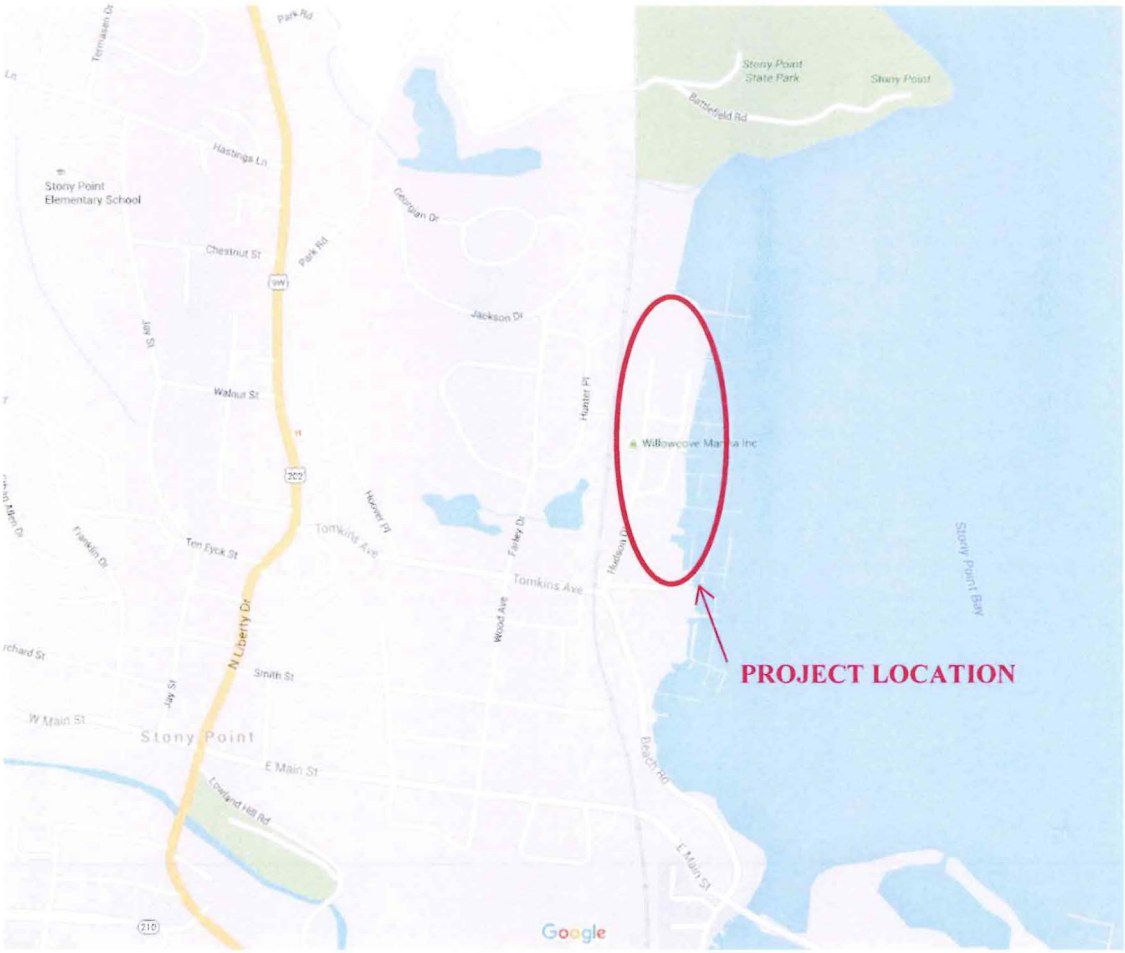
NORTH



STREET MAP

Source: maps.google.com

ATZL, NASHER & ZIGLER P.C.

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NORTH

SOIL MAP

Source: http://websoilsurvey.sc.egov.usda.gov/app/WebSoilSurvey.aspx

EAGLE BAY

TOWN OF STONY POINT
ROCKLAND COUNTY
NEW YORK

DRAINAGE CALCULATION

BY

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EXISTING CONDITION:

The existing drainage area consists of one watershed (WS#1) with an area of about 14.96 acres which consists of several buildings, roads, parking area, gravel cover, and grass cover. The drainage area and flow path are delineated on Existing Drainage Map Condition (E-1).

WS#1

The soil within WS#1 has Uw Hydrological Soil Group symbol (Udorthents, wet substratum) which is considered as Hydrological Soil Group "C/D".

A = 14.96 Acres

Composition- HSG "C"	Composition- HSG "D"
$A_{Impervious}$= 2.55 Acres	$A_{Impervious}$= 2.55 Acres
$A_{Gravel\text{-}Paving}$= 3.25 Acres	$A_{Gravel\text{-}Paving}$= 3.25 Acres
$A_{Grass\text{-}good}$= 1.68 Acres	$A_{Grass\text{-}good}$= 1.68 Acres

L_1 = 100 LF (Sheet Flow)

$S_1 = 0.111$

L_2 = 496 LF (Shallow Concentrated Flow – Unpaved)

$S_2 = 0.015$

WS#1 → P.O.I.#1

DEVELOPED CONDITION:

The developed condition drainage is consisted of two watersheds (WS#1A & WS#1B). The total drainage area remains the same as the existing condition. WS#1B include the portion of the proposed development including access roads, sidewalks, parkings and landscaped area. WS#1B consists of the buildings' rooftop, decks and balconies. The drainage area and flow path are delineated on Developed Drainage Map Condition (D-1).

WS#1A

The soil within WS#1A has Uw Hydrological Soil Group symbol (Udorthents, wet substratum) which is considered as Hydrological Soil Group "C/D".

	Composition- HSG "C"	Composition- HSG "D"
A = 11.96 Acres	$A_{Impervious}$= 4.40 Acres	$A_{Impervious}$= 4.40 Acres
	A_{Gravel}= 0.35 Acres	A_{Gravel}= 0.35 Acres
	$A_{Grass\text{-}good}$= 1.23 Acres	$A_{Grass\text{-}good}$= 1.23 Acres

Due to high proportion of the impervious cover and pipe flow throughout most of the flow path, minimum time of concentration is used:

Tc=0.1 hr

WS#1A → P.O.I.#1

WS#1B

The soil within WS#1B has Uw Hydrological Soil Group symbol (Udorthents, wet substratum) which is considered as Hydrological Soil Group "C/D".

		Composition- HSG "C"	Composition- HSG "D"
A =	3.00 Acres	$A_{Impervious}$= 1.50 Acres	$A_{Impervious}$= 1.50 Acres

Due to high proportion of the impervious cover and pipe flow throughout most of the flow path, minimum time of concentration is used:

Tc=0.1 hr

WS#1B → P.O.I.#1

EAGLE BAY

TOWN OF STONY POINT
ROCKLAND COUNTY
NEW YORK

STORMWATER MANAGEMENT PRACTICE DESIGN CALCULATIONS

BY

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WATER QUALITY (WQv) AND RUNOFF REDUCTION (RRv) VOLUME CALCULATION

1. Base Data:

- Drainage study area = 14.96 acres
- Existing Impervious area in disturbance (I_{Ext})=
  5.10 acres (macadam cover) + 6.50 acres (gravel paving) = 11.60 acres
- Proposed impervious area in disturbance = 11.80 acres
- New Impervious (I_{New})= 11.80 – 11.60 = 0.20 acres
  - Required treatment per Ch.9 Redevelopment Rules:
    $A_{Treat} = I_{New} + 0.25 * I_{Ext}$
    $\rightarrow A_{Treat} = 0.20 + 0.25 * 11.60 = 3.10\ acres$

- 90% Rainfall Depth = 1.5 inches

- Hydrological Soil Group (HSG): C/D.

- HSG Specific Reduction Factor, S = 0.5(0.20+0.30) = 0.25

2. Water Quality Volume (Before Runoff Reduction):

Find impervious cover percentage:

$$I = \frac{3.10}{14.96} * 100\% = 20.7\%$$

Find runoff coefficient:

$$R_V = 0.05 + 0.009 * I$$
$$\rightarrow R_V = 0.05 + 0.009 * 20.7\%$$
$$\rightarrow R_V = 0.236$$

Find required WQv using 90% rainfall rule:

$$WQ_V = 1.5\ in * R_V * A$$
$$\rightarrow WQ_V = \left(\frac{1.5}{12}\right) ft * 0.236 * 14.96\ acs$$
$$\rightarrow WQ_V = 0.442\ ac.ft.$$

Original WQv = 0.442 Acs.ft.

3. **Minimum Runoff Reduction Volume (RRv) Calculation:**

$$RRv = P * 0.95 * S * AI_{treat}$$
$$S_{ave} = 0.25$$
$$RRv = \frac{1.5}{12} ft * 0.95 * 0.25 * 3.10\ acres$$
$$RRv = 0.092\ acs.ft.$$

Minimum RRv Required = 0.092 Acs.ft.

4. **Area Reduction Practice:**

- Conservation of Natural Area & Sheet flow to filter strips:
  - Contribution Impervious Area,
    $(AI)_{Area\ Reduction}$ = 0.0 Acres
  - Contribution Natural Green Island Area & vegetated filter strip
    $(GA)_{Area\ Reduction}$ = 0.0 Acres

5. **Subtract Total Area Reduction From Total Drainage Area:**

- Remaining Drainage Area:
  (#1 DA_{Total} - #4 GA) = (14.96 Acres – 0.0 Acres) = 14.96 Acres

- Remaining Impervious Area:
  (#1 $AI_{Grand\ Total}$ - #4 AI) = (3.10 Acres – 0.0 Acres) = 3.10 Acres

6. **Recalculate WQv for Site Area Remaining After Area Reductions:**

Find impervious cover percentage:

$$I = \frac{3.10}{14.96} * 100\% = 20.7\%$$

Find runoff coefficient:

$$R_V = 0.05 + 0.009 * I$$
$$\rightarrow R_V = 0.05 + 0.009 * 20.7\%$$
$$\rightarrow R_V = 0.236$$

Find required WQv using 90% rainfall rule:

$$WQ_V = 1.5\ in * R_V * A$$
$$\rightarrow WQ_V = \left(\frac{1.5}{12}\right) ft * 0.236 * 14.96\ acs$$
$$\rightarrow WQ_V = 0.442\ ac.ft.$$

Area Reduced WQv = 0.442 Acs.ft.

7. **Runoff Reduction Volume (RRv) Calculation Per Area Reduction:**

- The Runoff Reduction Volume (RRv) Credit:

$(RRv)_{Area\ Reduction}$ = (#2 Original WQv - #6 Area Reduced WQv)

$\Rightarrow (RRv)_{Area\ Reduction}$ = (0.442 Acres – 0.442 Acres)

$\Rightarrow (RRv)_{Area\ Reduction}$ = 0.0 Acres

$(RRv)_{Area\ Reduction}$ = 0.0 Acs.ft.

8. **Incorporate Impervious Area Disconnection:**

- The Total Disconnected Impervious Area:
  $(AI)_{Disconnected}$ = 0.0 Acres.

9. **Recalculate WQv with Rv Modified for Impervious Disconnection:**

Since the DA (From #5) and the remaining impervious area (From #5) remain the same, the Rv does not change. Therefore, the WQv due to the impervious disconnection is the same as Item # 6

Area Reduced WQv = 0.442 Acs.ft.

10. Runoff Reduction Volume (RRv) Per Impervious Area Reduction:

- The Runoff Reduction Volume (RRv) Credit:

$(RRv)_{AI\ Reduction}$ = (#6 Area Reduced WQv - #9 Area Reduced WQv)

$\Rightarrow (RRv)_{AI\ Reduction}$ = (0.442 Acres – 0.442 Acres)

$\Rightarrow (RRv)_{AI\ Reduction}$ = 0.0 Acres

$(RRv)_{AI\ Reduction}$ = 0.0 Acs.ft.

11. Source Control WQv Treatment Practice:

Bio-Filter systems have been proposed to provide source control WQv.

Calculating the provided Water Quality volume in the Bio-Filter systems

(Please see the HydroCad modeling results for volume calculation details)

Provided Water Quality Volume = 21,131 cf (@El. 7.5) = 0.485 acs.ft.

12. The Total Provided Runoff Reduction Volume (RRv) Calculation:

- The Grand Total RRv:
  $(RRv)_{Grand\ Total}$ = (#7 $(RRv)_{Area\ Reduction}$ + #10 $(RRv)_{AI\ Reduction}$ + #11 $(WQv)_{Source\ Control\text{-}Provided}$

$\Rightarrow (RRv)_{Grand\ Total}$ = 0.0 Acs.ft.+0.0 Acs.ft. + 0.485 Acs.ft.

$\Rightarrow (RRv)_{Grand\ Total}$ = 0.485 Acs.ft.

$(RRv)_{Grand\ Total}$ = 0.485 Acs.ft.

13. Check if Total Provided RRv is Adequate Compared to the Original WQv:

- The $(RRv)_{Grand\ Total}$ = 0.485 acs.ft. > $(WQv)_{Original}$ = 0.442 Acs.ft.

↓

(Provided RRv is Adequate Compared to the Original WQv)

14. Check if Total Provided RRv is Adequate Compared to the Minimum RRv:

- The $(RRv)_{Grand\ Total}$ = 0.485 Acs.ft. >= $(RRv)_{Minimum}$ = 0.092 Acs.ft.

↓

(Minimum RRv Requirement is Satisfied)

18. List of unused Green Infrastructure and reasons for not being used:

- Conservation of Natural Areas
  - There is no conservation natural / buffer area within our designated drainage area.
- Sheet Flow Riparian Buffers or Filter Strips
  - Only sheet flow is allowed. The Maximum contributing length shall be 150 feet for pervious and 75 feet for impervious surface
- Vegetated Swale
  - Due to steep slopes on the site, the time of concentration is too short to qualify for vegetated swale
- Tree Planting/Tree Pit
  - Tree planting is proposed in the landscaping plan. However, we have not applied the credit toward the stormwater management practice to make green infrastructure design calculation conservative.
- Disconnection of Rooftop Runoff
  - Direct runoff from only residential roof areas to designated pervious area allowed.
- Stream Daylighting
  - The designated site does have the stream daylighting option available.
- Green Roof
  - Usually intended for use in urban areas where pervious area is less common. The proposed development is an industrial site.
- Stormwater Planter
  - The versatility of stormwater planters uniquely suited for urban redevelopment sites.

- Rain Barrel/Cistern
  - Cistern may not be suitable to the cold climate of the area. Water freezing within the container could cause unwanted stress.

- Dry Swale
  - The development plan restrictions do not allow using dry swales.

WATER QUANTITY

Since the site discharges directly to Hudson River (fifth order or larger stream), Overbank Flood (Qp) and Extreme Flood (Qf) control criteria is being waved.

EAGLE BAY

TOWN OF STONY POINT
ROCKLAND COUNTY
NEW YORK

HYDROCAD MODEL
FOR EXISTING AND PROPOSED CONDITIONS
1, 10, AND 100 YEAR STORMS

BY

ATZL, NASHER & ZIGLER P.C.
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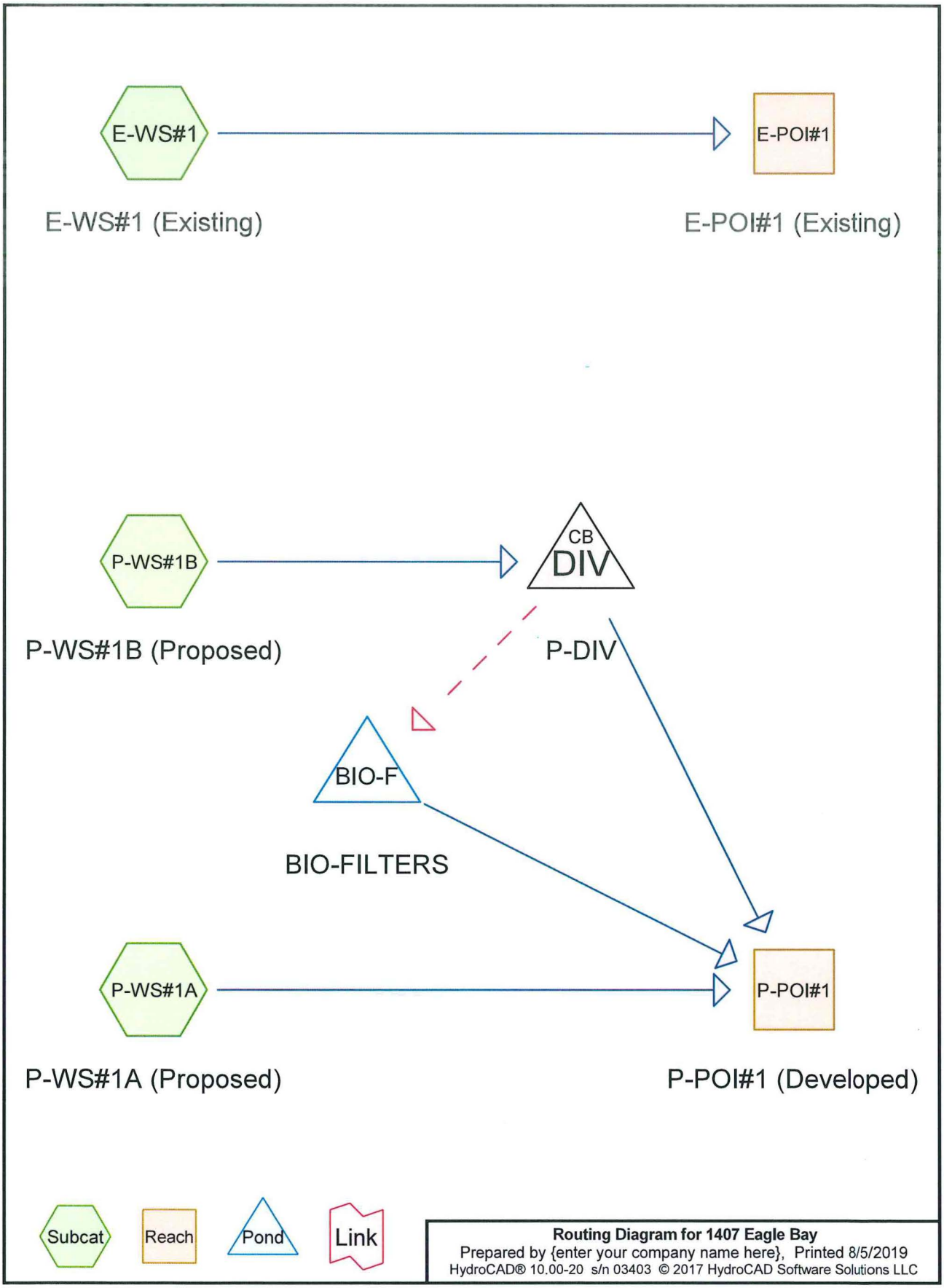

E-WS#1
E-POI#1
E-WS#1 (Existing)
E-POI#1 (Existing)
P-WS#1B
CB
DIV
P-WS#1B (Proposed)
P-DIV
BIO-F
BIO-FILTERS
P-WS#1A
P-POI#1
P-WS#1A (Proposed)
P-POI#1 (Developed)
Subcat
Reach
Pond
Link
Routing Diagram for 1407 Eagle Bay
Prepared by {enter your company name here}, Printed 8/5/2019
HydroCAD® 10.00-20 s/n 03403 © 2017 HydroCAD Software Solutions LLC

Summary for Subcatchment E-WS#1: E-WS#1 (Existing)

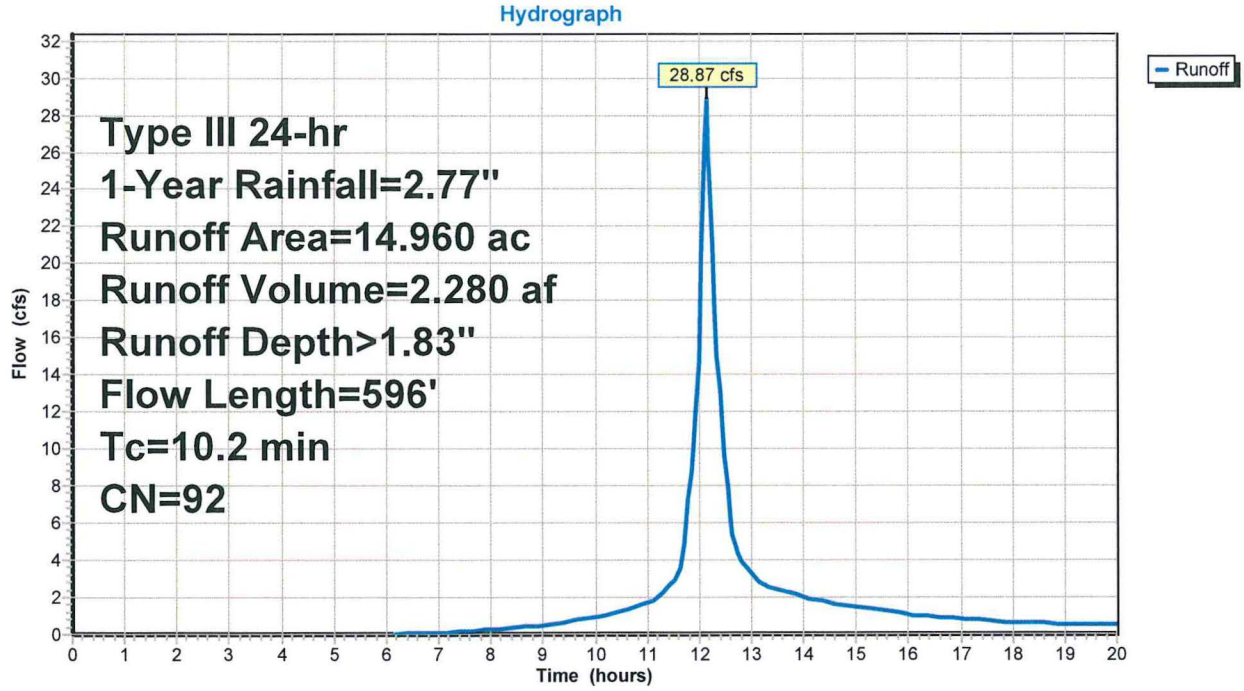
Runoff = 28.87 cfs @ 12.14 hrs, Volume= 2.280 af, Depth> 1.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-Year Rainfall=2.77"

	Area (ac)	CN	Description
*	2.550	98	Impervious, HSG C
*	2.550	98	Impervious, HSG D
	3.250	96	Gravel surface, HSG C
	3.250	96	Gravel surface, HSG D
	1.680	74	>75% Grass cover, Good, HSG C
	1.680	80	>75% Grass cover, Good, HSG D
	14.960	92	Weighted Average
	9.860		65.91% Pervious Area
	5.100		34.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	100	0.1100	0.24		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.38"
3.2	496	0.0160	2.57		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
10.2	596	Total			

Subcatchment E-WS#1: E-WS#1 (Existing)



Summary for Subcatchment P-WS#1A: P-WS#1A (Proposed)

[49] Hint: Tc<2dt may require smaller dt

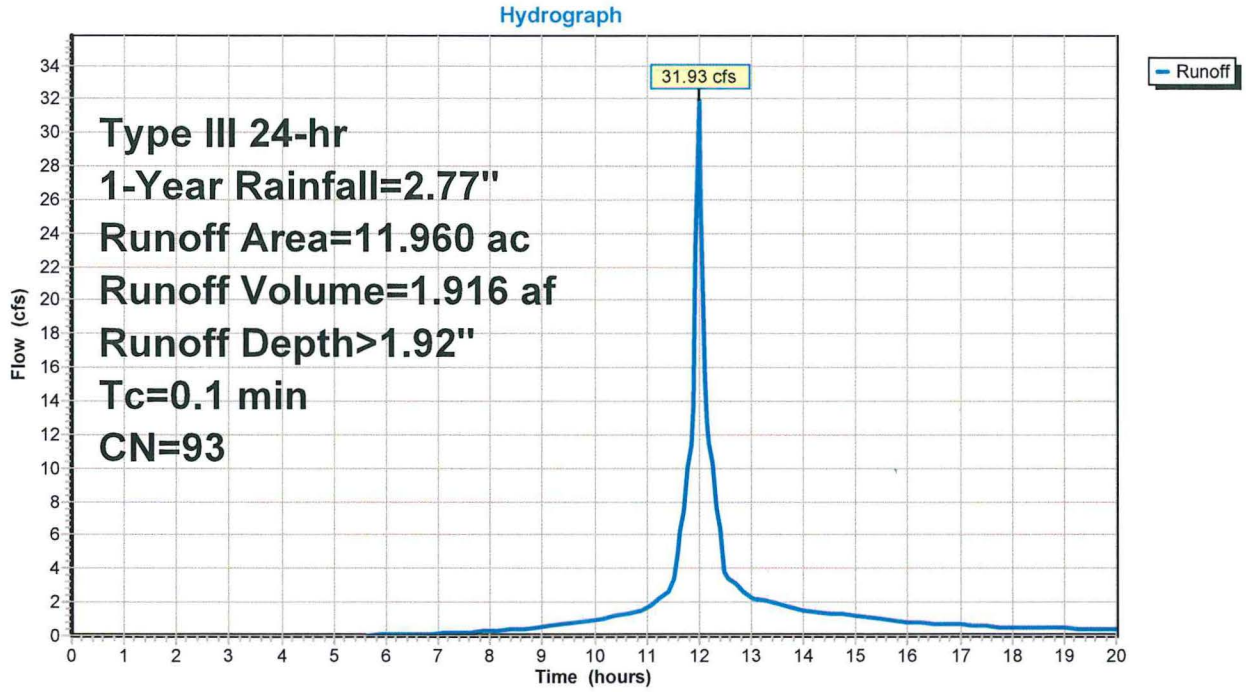
Runoff = 31.93 cfs @ 12.00 hrs, Volume= 1.916 af, Depth> 1.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-Year Rainfall=2.77"

Area (ac)	CN	Description
4.400	98	Paved parking, HSG C
4.400	98	Paved parking, HSG D
0.350	89	Gravel roads, HSG C
0.350	91	Gravel roads, HSG D
1.230	74	>75% Grass cover, Good, HSG C
1.230	80	>75% Grass cover, Good, HSG D
11.960	93	Weighted Average
3.160		26.42% Pervious Area
8.800		73.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1					**Direct Entry,**

Subcatchment P-WS#1A: P-WS#1A (Proposed)



Summary for Subcatchment P-WS#1B: P-WS#1B (Proposed)

[49] Hint: Tc<2dt may require smaller dt

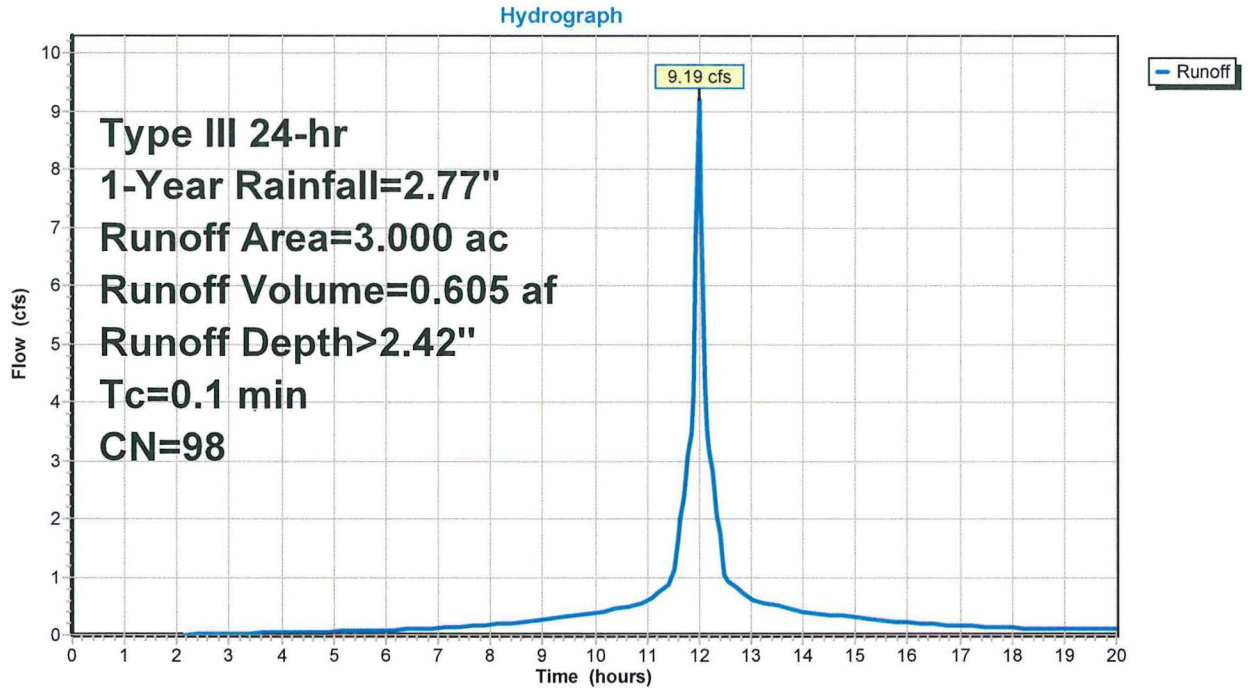
Runoff = 9.19 cfs @ 12.00 hrs, Volume= 0.605 af, Depth> 2.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-Year Rainfall=2.77"

Area (ac)	CN	Description
1.500	98	Roofs, HSG C
1.500	98	Roofs, HSG D
3.000	98	Weighted Average
3.000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1					**Direct Entry,**

Subcatchment P-WS#1B: P-WS#1B (Proposed)



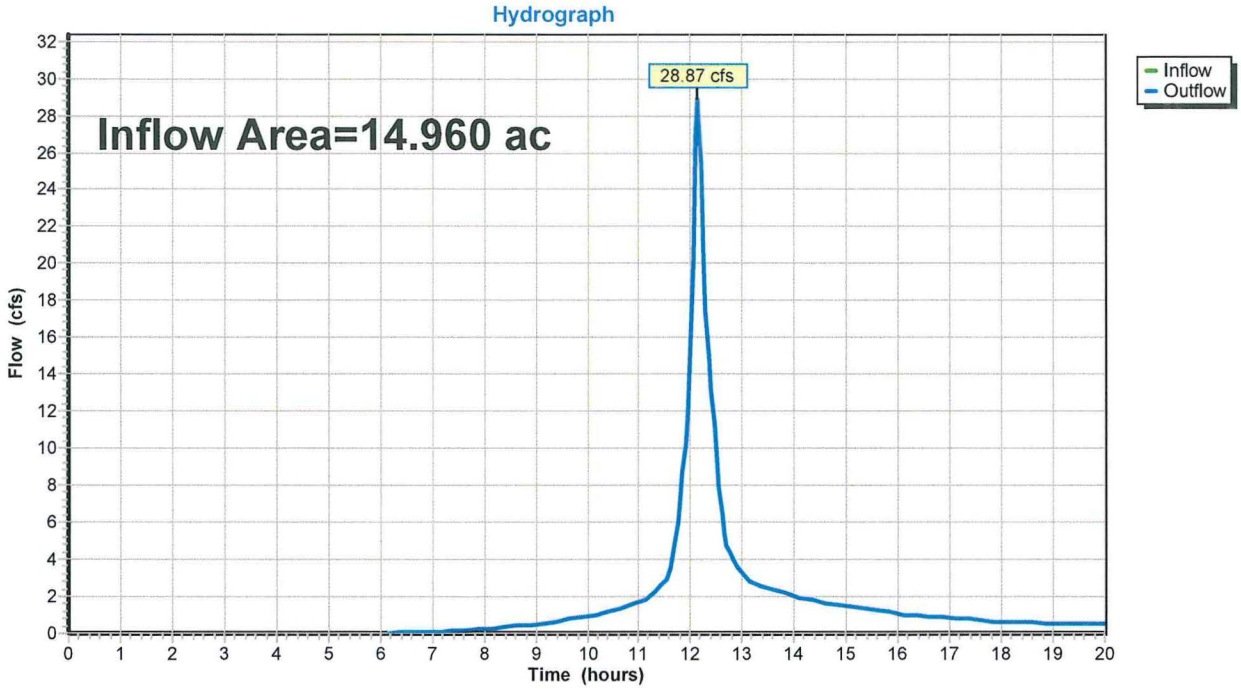
Summary for Reach E-POI#1: E-POI#1 (Existing)

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 14.960 ac, 34.09% Impervious, Inflow Depth > 1.83" for 1-Year event
Inflow = 28.87 cfs @ 12.14 hrs, Volume= 2.280 af
Outflow = 28.87 cfs @ 12.14 hrs, Volume= 2.280 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs

Reach E-POI#1: E-POI#1 (Existing)



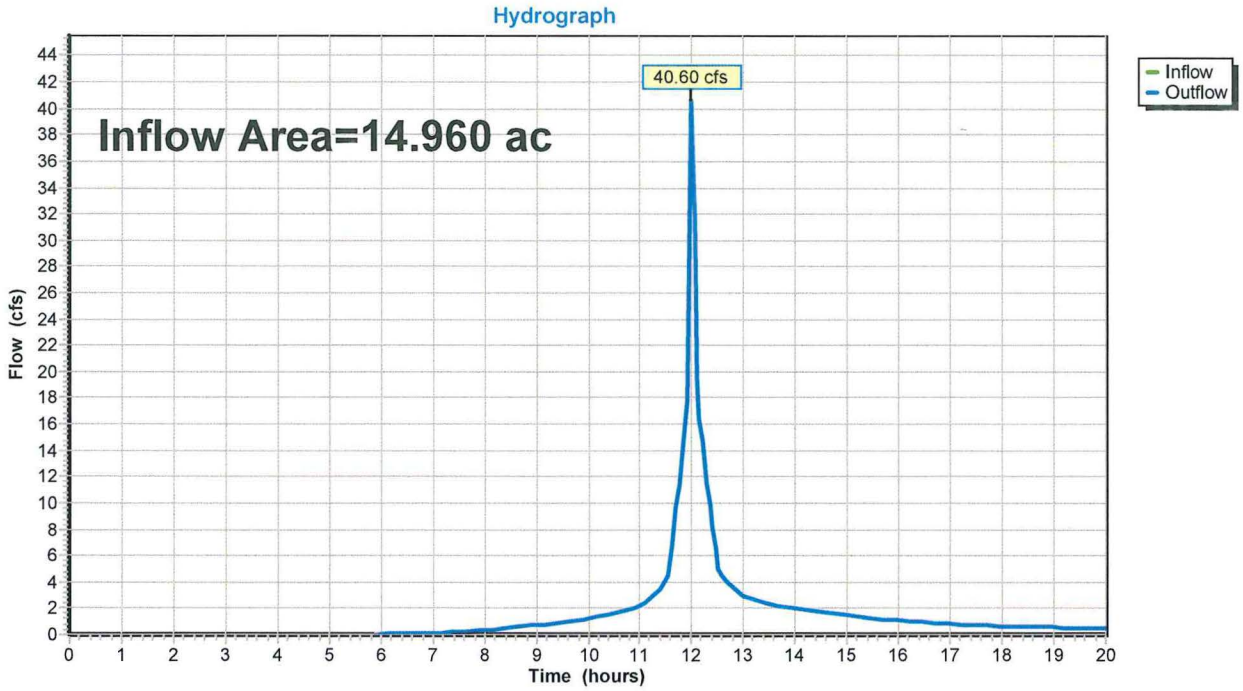
Summary for Reach P-POI#1: P-POI#1 (Developed)

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 14.960 ac, 78.88% Impervious, Inflow Depth > 1.99" for 1-Year event
Inflow = 40.60 cfs @ 12.00 hrs, Volume= 2.481 af
Outflow = 40.60 cfs @ 12.00 hrs, Volume= 2.481 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs

Reach P-POI#1: P-POI#1 (Developed)



Summary for Pond BIO-F: BIO-FILTERS

Inflow	=	1.29 cfs @	12.00 hrs, Volume=	0.362 af	
Outflow	=	0.85 cfs @	12.11 hrs, Volume=	0.321 af,	Atten= 34%, Lag= 6.4 min
Primary	=	0.85 cfs @	12.11 hrs, Volume=	0.321 af	

Routing by Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 3.04' @ 12.11 hrs Surf.Area= 12,777 sf Storage= 2,740 cf

Plug-Flow detention time= 107.9 min calculated for 0.320 af (89% of inflow)
Center-of-Mass det. time= 63.8 min (794.7 - 730.9)

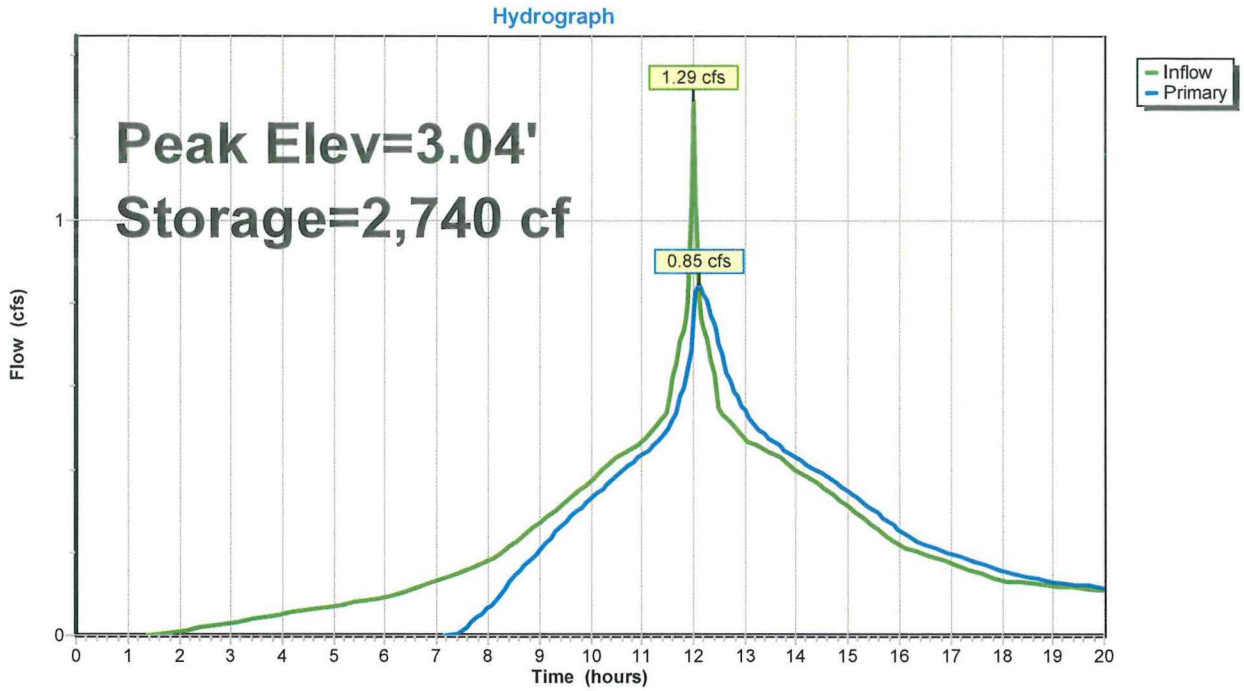
Volume	Invert	Avail.Storage	Storage Description
#1	2.50'	29,277 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2.50	12,777	0.0	0	0
3.50	12,777	40.0	5,111	5,111
6.99	12,777	20.0	8,918	14,029
7.00	12,777	100.0	128	14,157
8.00	17,464	100.0	15,121	29,277

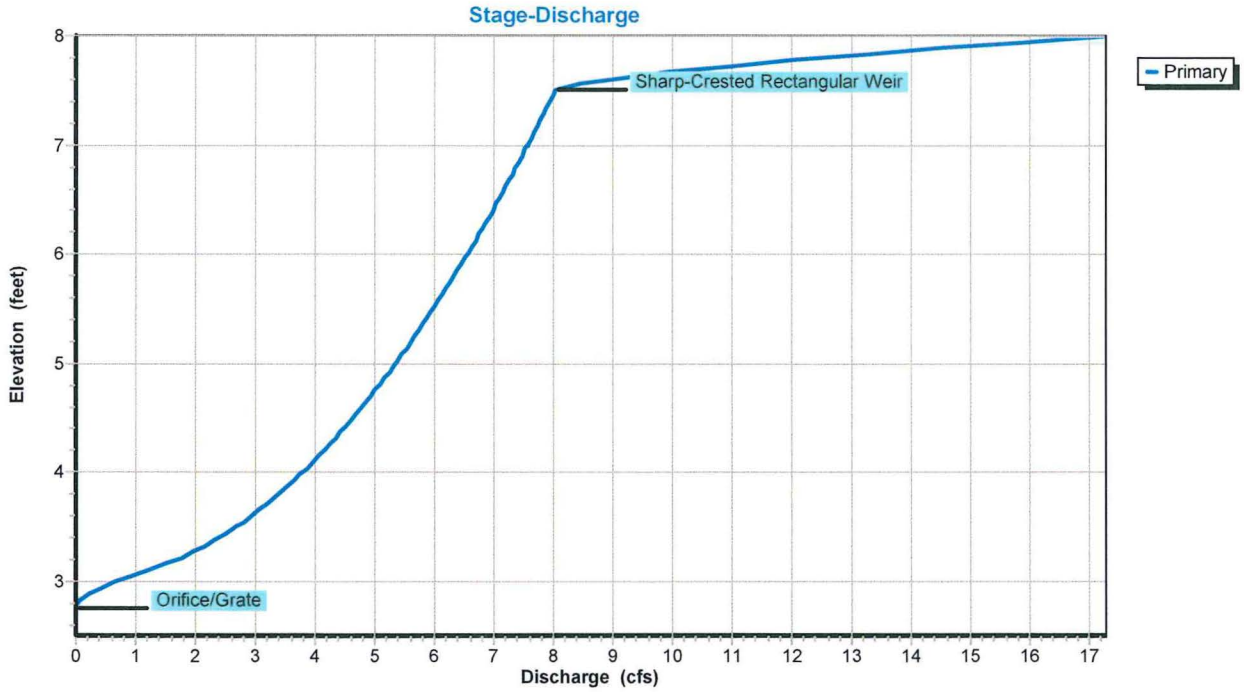
Device	Routing	Invert	Outlet Devices
#1	Primary	2.75'	**6.0" Vert. Orifice/Grate X 4.00** C= 0.600
#2	Primary	7.50'	**2.0' long Sharp-Crested Rectangular Weir X 4.00** 2 End Contraction(s)

Primary OutFlow Max=0.84 cfs @ 12.11 hrs HW=3.04' (Free Discharge)
└─**1=Orifice/Grate** (Orifice Controls 0.84 cfs @ 1.82 fps)
└─**2=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond BIO-F: BIO-FILTERS



Pond BIO-F: BIO-FILTERS



Stage-Area-Storage for Pond BIO-F: BIO-FILTERS

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
2.50	12,777	0
2.60	12,777	511
2.70	12,777	1,022
2.80	12,777	1,533
2.90	12,777	2,044
3.00	12,777	2,555
3.10	12,777	3,066
3.20	12,777	3,578
3.30	12,777	4,089
3.40	12,777	4,600
3.50	12,777	5,111
3.60	12,777	5,366
3.70	12,777	5,622
3.80	12,777	5,877
3.90	12,777	6,133
4.00	12,777	6,389
4.10	12,777	6,644
4.20	12,777	6,900
4.30	12,777	7,155
4.40	12,777	7,411
4.50	12,777	7,666
4.60	12,777	7,922
4.70	12,777	8,177
4.80	12,777	8,433
4.90	12,777	8,688
5.00	12,777	8,944
5.10	12,777	9,199
5.20	12,777	9,455
5.30	12,777	9,711
5.40	12,777	9,966
5.50	12,777	10,222
5.60	12,777	10,477
5.70	12,777	10,733
5.80	12,777	10,988
5.90	12,777	11,244
6.00	12,777	11,499
6.10	12,777	11,755
6.20	12,777	12,010
6.30	12,777	12,266
6.40	12,777	12,521
6.50	12,777	12,777
6.60	12,777	13,033
6.70	12,777	13,288
6.80	12,777	13,544
6.90	12,777	13,799
7.00	12,777	14,157
7.10	13,246	15,458
7.20	13,714	16,806
7.30	14,183	18,201
7.40	14,652	19,643
7.50	15,121	21,131
7.60	15,589	22,667
7.70	16,058	24,249
7.80	16,527	25,878
7.90	16,995	27,554
8.00	**17,464**	**29,277**

Summary for Pond DIV: P-DIV

[57] Hint: Peaked at 9.21' (Flood elevation advised)

Inflow Area =	3.000 ac,100.00% Impervious, Inflow Depth > 2.42" for 1-Year event				
Inflow =	9.19 cfs @	12.00 hrs,	Volume=	0.605 af	
Outflow =	9.19 cfs @	12.00 hrs,	Volume=	0.605 af,	Atten= 0%, Lag= 0.0 min
Primary =	7.90 cfs @	12.00 hrs,	Volume=	0.244 af	
Secondary =	1.29 cfs @	12.00 hrs,	Volume=	0.362 af	

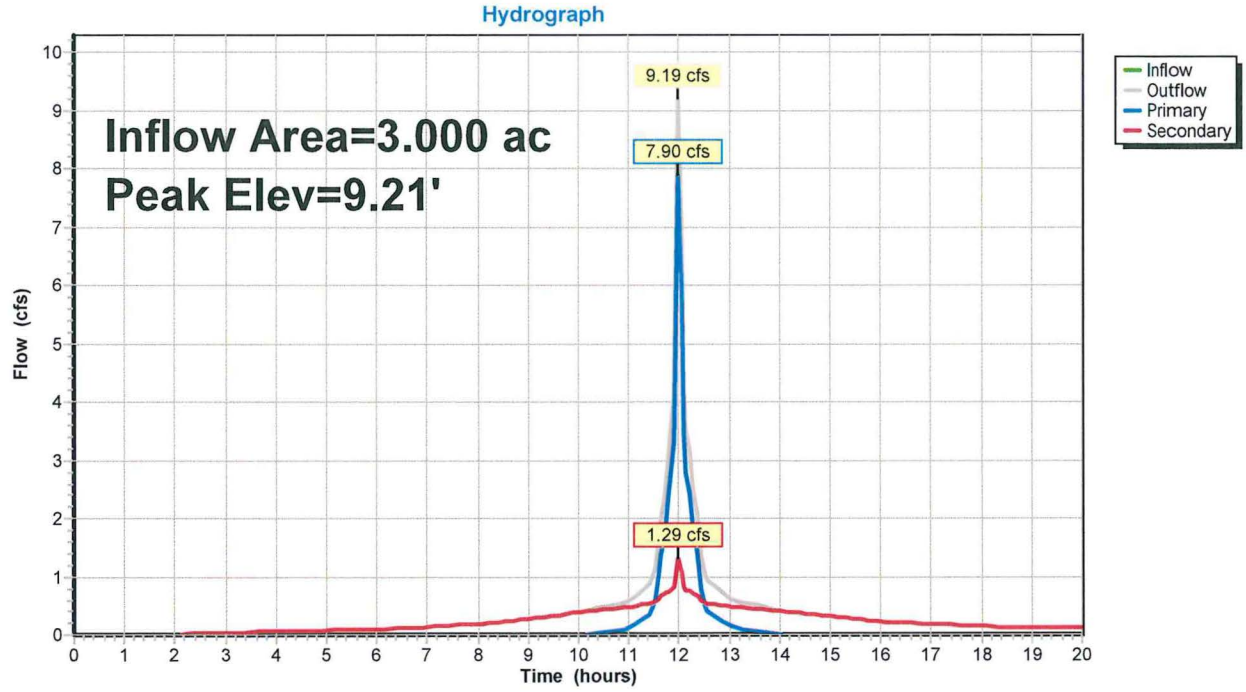
Routing by Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 9.21' @ 12.00 hrs

Device	Routing	Invert	Outlet Devices
#1	Secondary	7.10'	**6.0" Vert. Orifice/Grate** C= 0.600
#2	Primary	7.50'	**8.0" Vert. Orifice/Grate X 4.00** C= 0.600

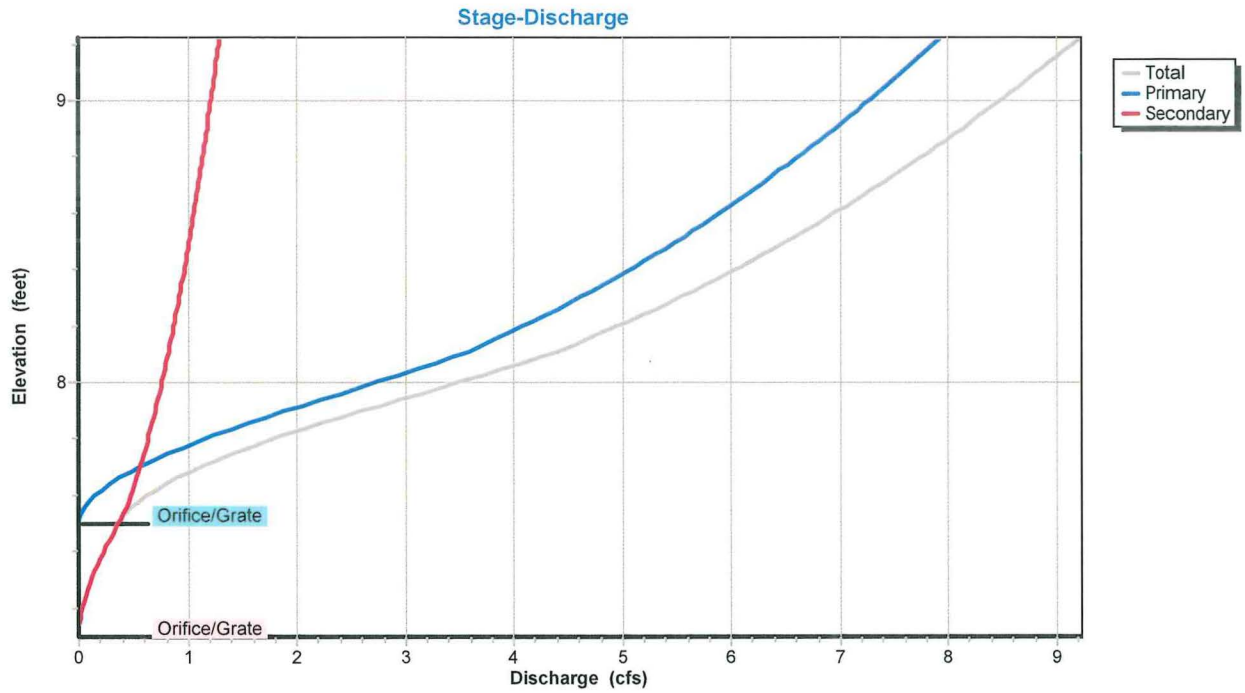
Primary OutFlow Max=7.86 cfs @ 12.00 hrs HW=9.20' (Free Discharge)
└**2=Orifice/Grate** (Orifice Controls 7.86 cfs @ 5.63 fps)

Secondary OutFlow Max=1.29 cfs @ 12.00 hrs HW=9.20' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 1.29 cfs @ 6.55 fps)

Pond DIV: P-DIV



Pond DIV: P-DIV



Stage-Area-Storage for Pond DIV: P-DIV

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
7.10	**0**	8.14	0	9.18	0
7.12	0	8.16	0	9.20	0
7.14	0	8.18	0	9.22	0
7.16	0	8.20	0		
7.18	0	8.22	0		
7.20	0	8.24	0		
7.22	0	8.26	0		
7.24	0	8.28	0		
7.26	0	8.30	0		
7.28	0	8.32	0		
7.30	0	8.34	0		
7.32	0	8.36	0		
7.34	0	8.38	0		
7.36	0	8.40	0		
7.38	0	8.42	0		
7.40	0	8.44	0		
7.42	0	8.46	0		
7.44	0	8.48	0		
7.46	0	8.50	0		
7.48	0	8.52	0		
7.50	0	8.54	0		
7.52	0	8.56	0		
7.54	0	8.58	0		
7.56	0	8.60	0		
7.58	0	8.62	0		
7.60	0	8.64	0		
7.62	0	8.66	0		
7.64	0	8.68	0		
7.66	0	8.70	0		
7.68	0	8.72	0		
7.70	0	8.74	0		
7.72	0	8.76	0		
7.74	0	8.78	0		
7.76	0	8.80	0		
7.78	0	8.82	0		
7.80	0	8.84	0		
7.82	0	8.86	0		
7.84	0	8.88	0		
7.86	0	8.90	0		
7.88	0	8.92	0		
7.90	0	8.94	0		
7.92	0	8.96	0		
7.94	0	8.98	0		
7.96	0	9.00	0		
7.98	0	9.02	0		
8.00	0	9.04	0		
8.02	0	9.06	0		
8.04	0	9.08	0		
8.06	0	9.10	0		
8.08	0	9.12	0		
8.10	0	9.14	0		
8.12	0	9.16	0		

Summary for Subcatchment E-WS#1: E-WS#1 (Existing)

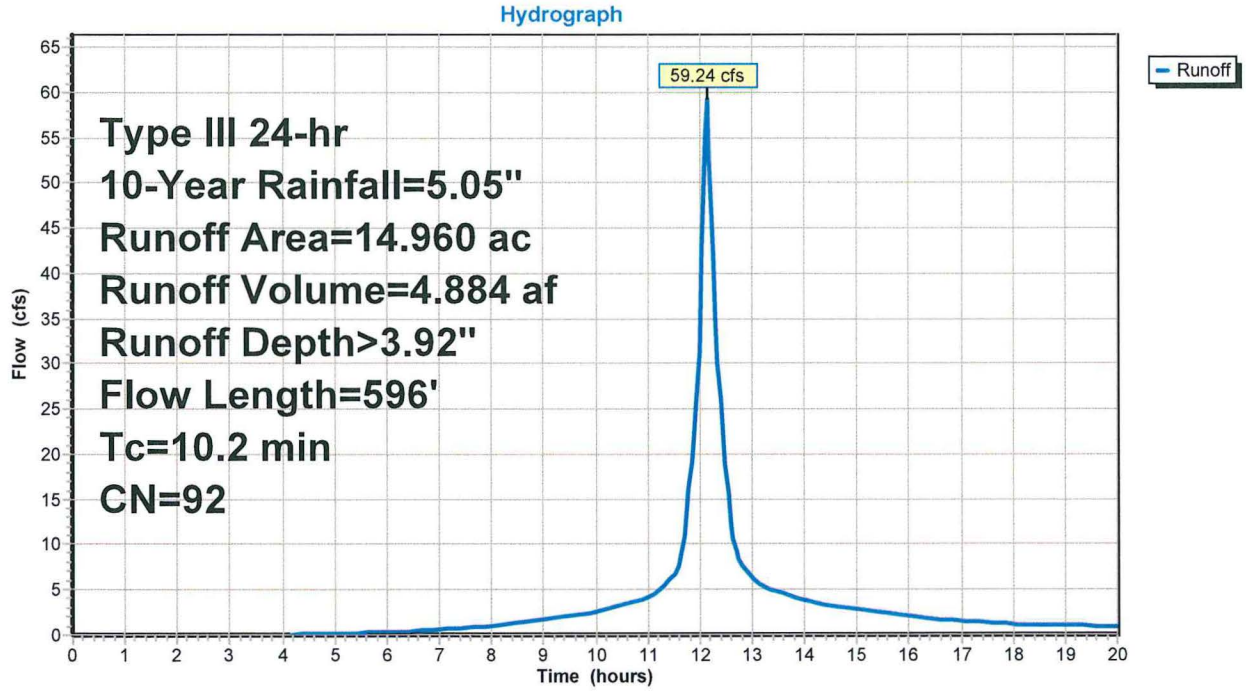
Runoff = 59.24 cfs @ 12.14 hrs, Volume= 4.884 af, Depth> 3.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=5.05"

	Area (ac)	CN	Description
*	2.550	98	Impervious, HSG C
*	2.550	98	Impervious, HSG D
	3.250	96	Gravel surface, HSG C
	3.250	96	Gravel surface, HSG D
	1.680	74	>75% Grass cover, Good, HSG C
	1.680	80	>75% Grass cover, Good, HSG D
	14.960	92	Weighted Average
	9.860		65.91% Pervious Area
	5.100		34.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	100	0.1100	0.24		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.38"
3.2	496	0.0160	2.57		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
10.2	596	Total			

Subcatchment E-WS#1: E-WS#1 (Existing)



Summary for Subcatchment P-WS#1A: P-WS#1A (Proposed)

[49] Hint: Tc<2dt may require smaller dt

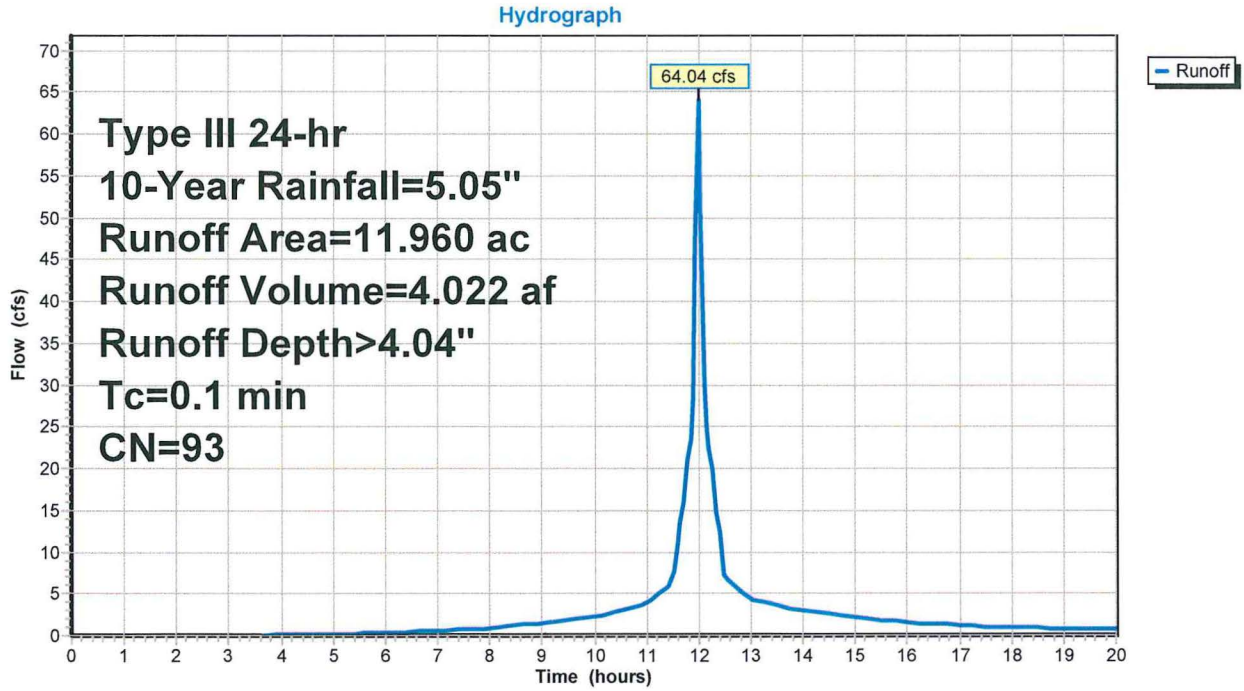
Runoff = 64.04 cfs @ 12.00 hrs, Volume= 4.022 af, Depth> 4.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=5.05"

Area (ac)	CN	Description
4.400	98	Paved parking, HSG C
4.400	98	Paved parking, HSG D
0.350	89	Gravel roads, HSG C
0.350	91	Gravel roads, HSG D
1.230	74	>75% Grass cover, Good, HSG C
1.230	80	>75% Grass cover, Good, HSG D
11.960	93	Weighted Average
3.160		26.42% Pervious Area
8.800		73.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1					**Direct Entry,**

Subcatchment P-WS#1A: P-WS#1A (Proposed)



Summary for Subcatchment P-WS#1B: P-WS#1B (Proposed)

[49] Hint: Tc<2dt may require smaller dt

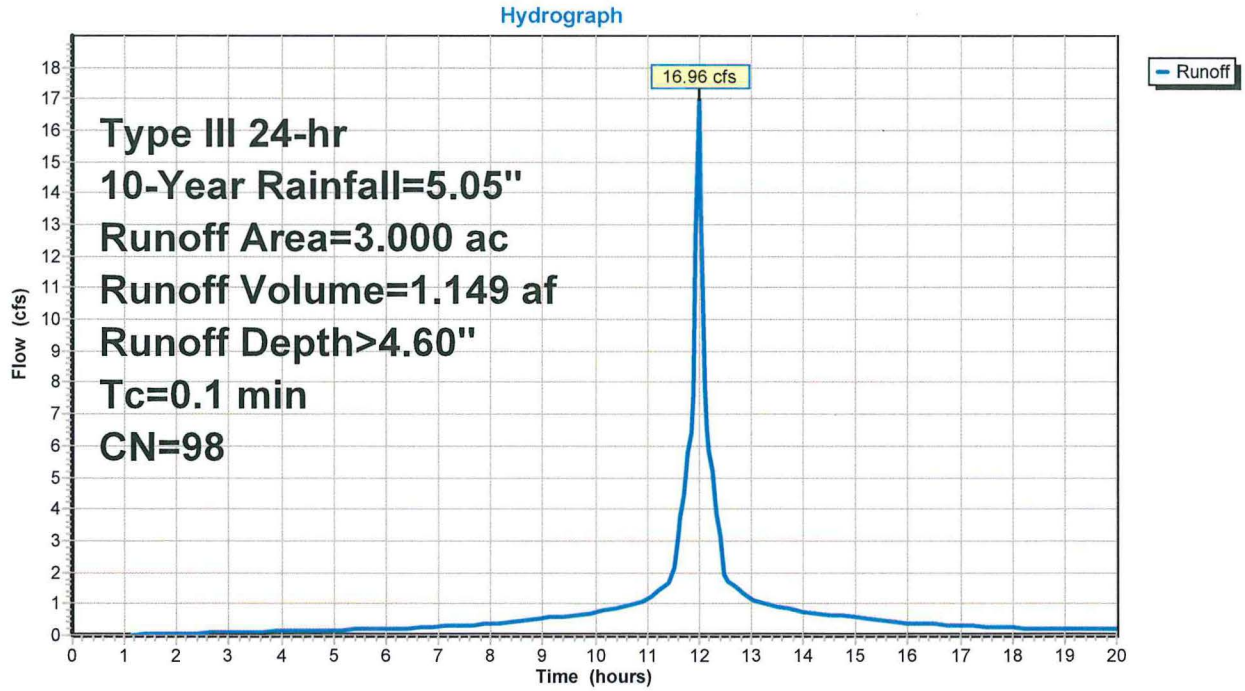
Runoff = 16.96 cfs @ 12.00 hrs, Volume= 1.149 af, Depth> 4.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=5.05"

Area (ac)	CN	Description
1.500	98	Roofs, HSG C
1.500	98	Roofs, HSG D
3.000	98	Weighted Average
3.000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1					**Direct Entry,**

Subcatchment P-WS#1B: P-WS#1B (Proposed)



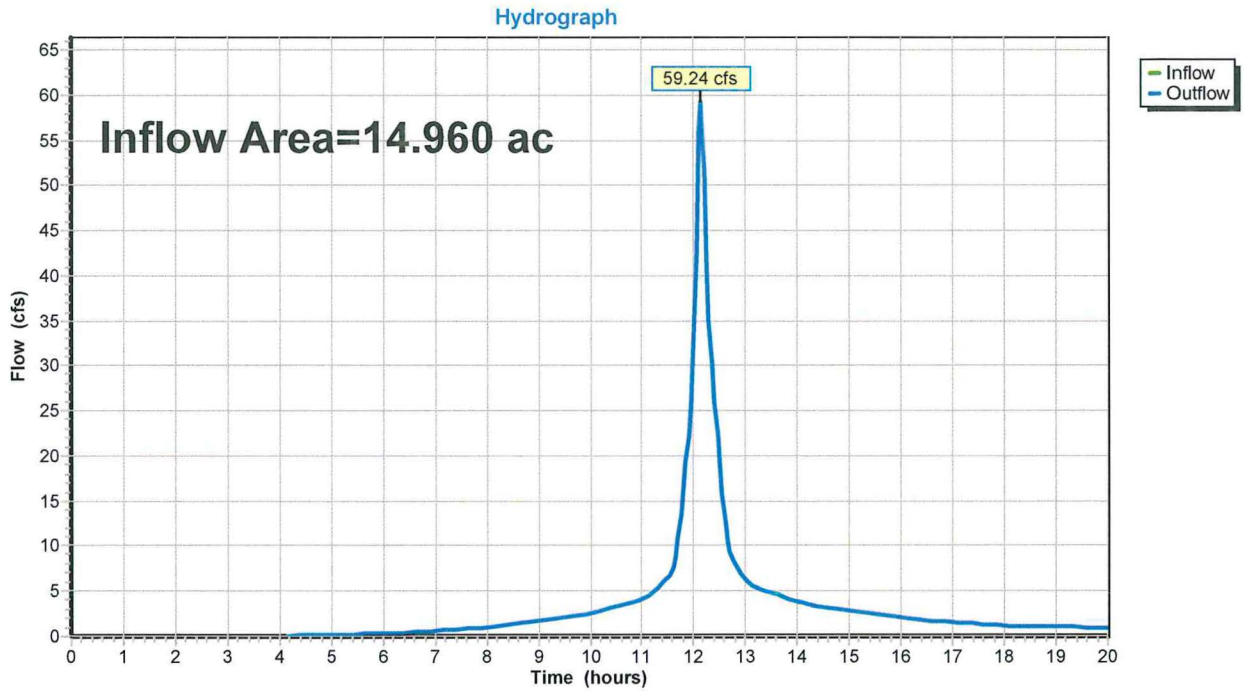
Summary for Reach E-POI#1: E-POI#1 (Existing)

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 14.960 ac, 34.09% Impervious, Inflow Depth > 3.92" for 10-Year event
Inflow = 59.24 cfs @ 12.14 hrs, Volume= 4.884 af
Outflow = 59.24 cfs @ 12.14 hrs, Volume= 4.884 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs

Reach E-POI#1: E-POI#1 (Existing)



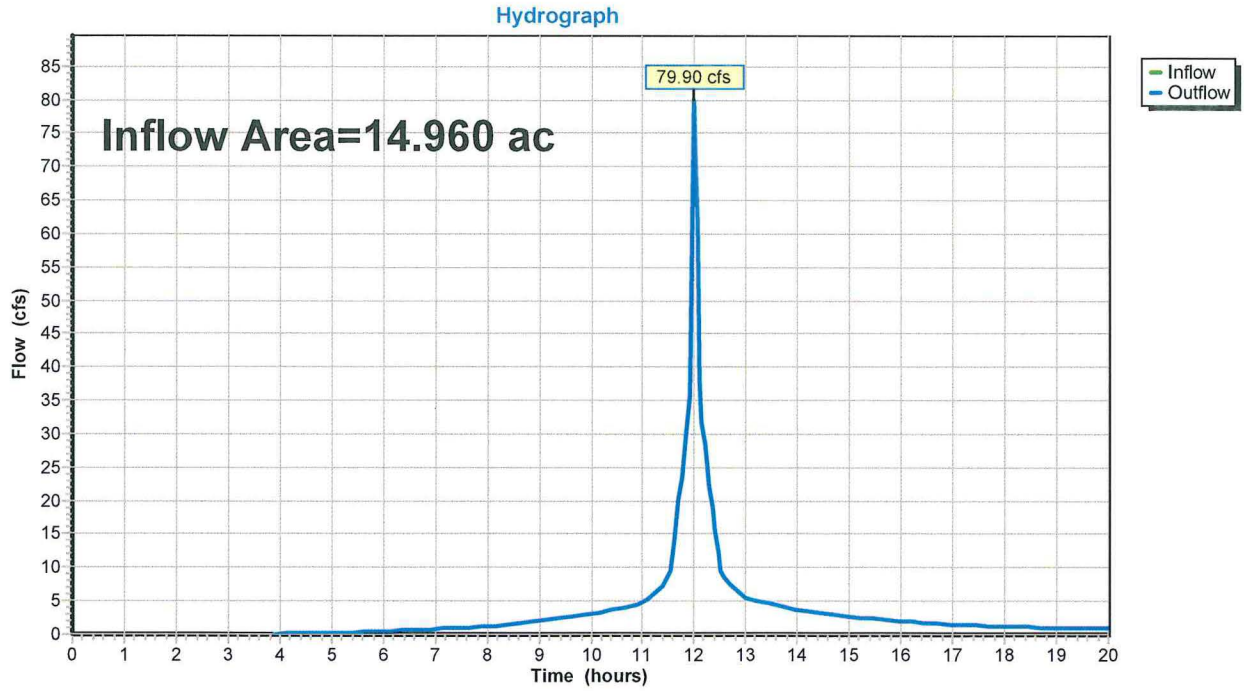
Summary for Reach P-POI#1: P-POI#1 (Developed)

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 14.960 ac, 78.88% Impervious, Inflow Depth > 4.11" for 10-Year event
Inflow = 79.90 cfs @ 12.00 hrs, Volume= 5.126 af
Outflow = 79.90 cfs @ 12.00 hrs, Volume= 5.126 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs

Reach P-POI#1: P-POI#1 (Developed)



Summary for Pond BIO-F: BIO-FILTERS

Inflow	=	2.18 cfs @	12.00 hrs,	Volume=	0.557 af
Outflow	=	1.27 cfs @	12.10 hrs,	Volume=	0.512 af, Atten= 42%, Lag= 6.0 min
Primary	=	1.27 cfs @	12.10 hrs,	Volume=	0.512 af

Routing by Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 3.12' @ 12.10 hrs Surf.Area= 12,777 sf Storage= 3,146 cf

Plug-Flow detention time= 88.6 min calculated for 0.511 af (92% of inflow)
Center-of-Mass det. time= 52.5 min (762.2 - 709.7)

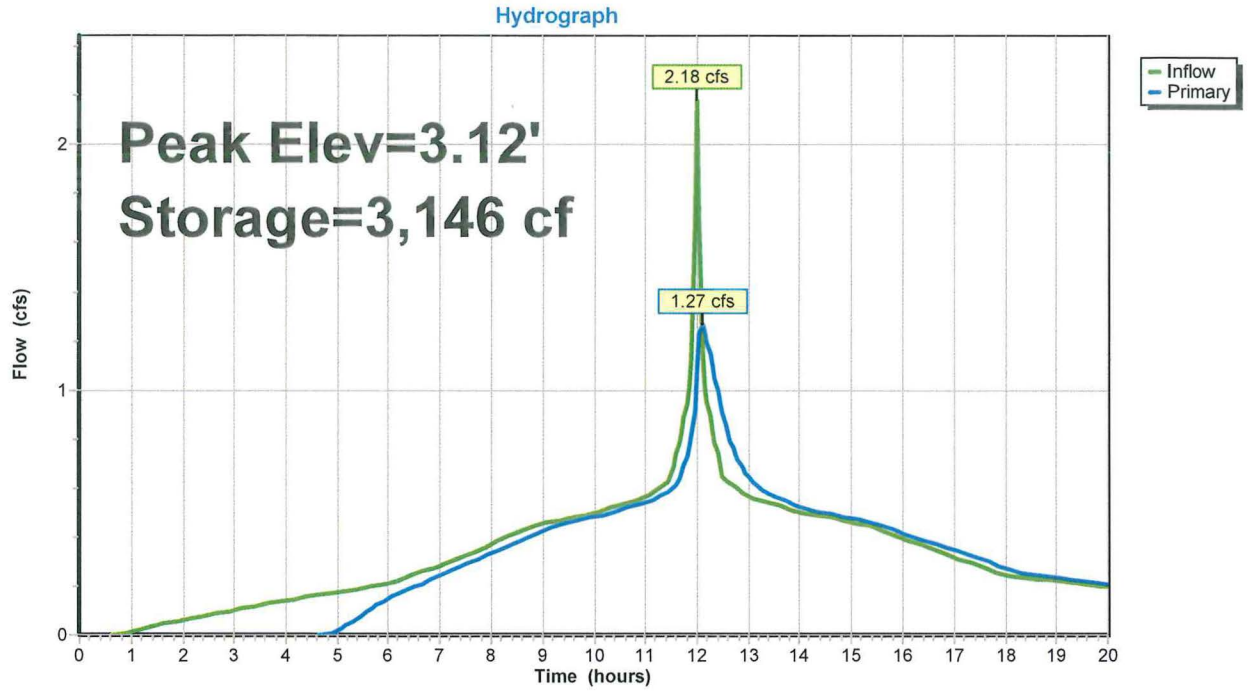
Volume	Invert	Avail.Storage	Storage Description
#1	2.50'	29,277 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2.50	12,777	0.0	0	0
3.50	12,777	40.0	5,111	5,111
6.99	12,777	20.0	8,918	14,029
7.00	12,777	100.0	128	14,157
8.00	17,464	100.0	15,121	29,277

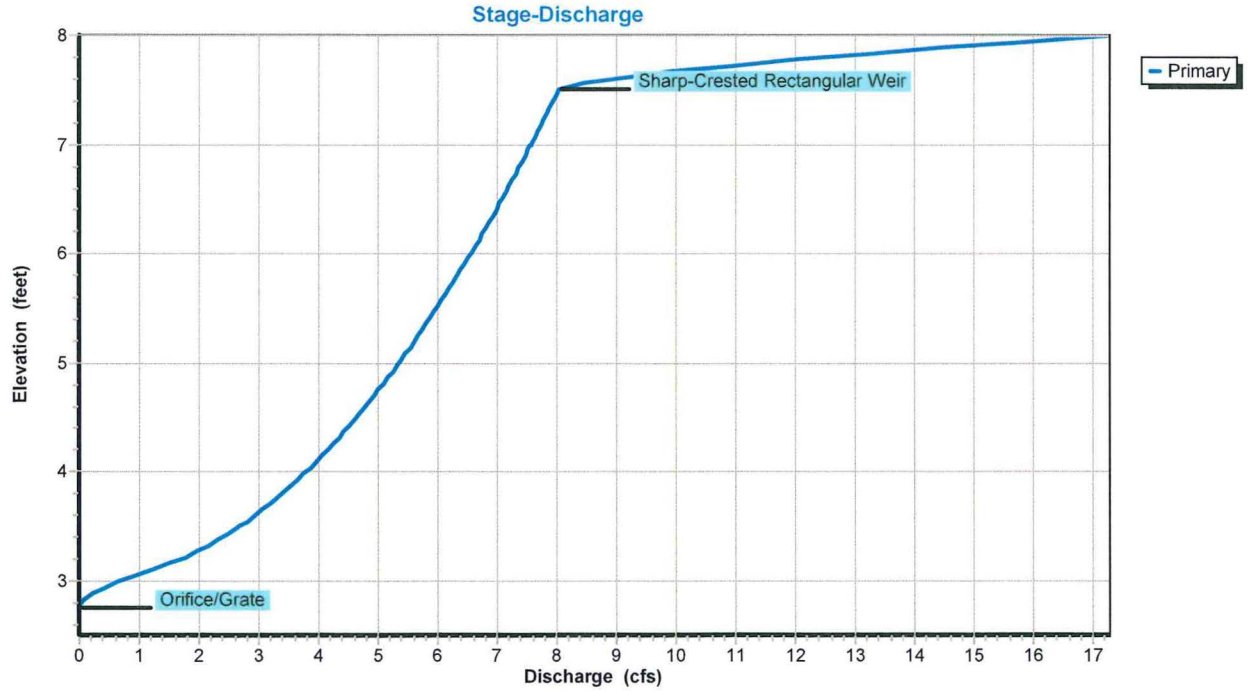
Device	Routing	Invert	Outlet Devices
#1	Primary	2.75'	**6.0" Vert. Orifice/Grate X 4.00** C= 0.600
#2	Primary	7.50'	**2.0' long Sharp-Crested Rectangular Weir X 4.00** 2 End Contraction(s)

Primary OutFlow Max=1.27 cfs @ 12.10 hrs HW=3.12' (Free Discharge)
└─**1=Orifice/Grate** (Orifice Controls 1.27 cfs @ 2.06 fps)
└─**2=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond BIO-F: BIO-FILTERS



Pond BIO-F: BIO-FILTERS



Stage-Area-Storage for Pond BIO-F: BIO-FILTERS

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
2.50	12,777	0
2.60	12,777	511
2.70	12,777	1,022
2.80	12,777	1,533
2.90	12,777	2,044
3.00	12,777	2,555
3.10	12,777	3,066
3.20	12,777	3,578
3.30	12,777	4,089
3.40	12,777	4,600
3.50	12,777	5,111
3.60	12,777	5,366
3.70	12,777	5,622
3.80	12,777	5,877
3.90	12,777	6,133
4.00	12,777	6,389
4.10	12,777	6,644
4.20	12,777	6,900
4.30	12,777	7,155
4.40	12,777	7,411
4.50	12,777	7,666
4.60	12,777	7,922
4.70	12,777	8,177
4.80	12,777	8,433
4.90	12,777	8,688
5.00	12,777	8,944
5.10	12,777	9,199
5.20	12,777	9,455
5.30	12,777	9,711
5.40	12,777	9,966
5.50	12,777	10,222
5.60	12,777	10,477
5.70	12,777	10,733
5.80	12,777	10,988
5.90	12,777	11,244
6.00	12,777	11,499
6.10	12,777	11,755
6.20	12,777	12,010
6.30	12,777	12,266
6.40	12,777	12,521
6.50	12,777	12,777
6.60	12,777	13,033
6.70	12,777	13,288
6.80	12,777	13,544
6.90	12,777	13,799
7.00	12,777	14,157
7.10	13,246	15,458
7.20	13,714	16,806
7.30	14,183	18,201
7.40	14,652	19,643
7.50	15,121	21,131
7.60	15,589	22,667
7.70	16,058	24,249
7.80	16,527	25,878
7.90	16,995	27,554
8.00	**17,464**	**29,277**

Summary for Pond DIV: P-DIV

[57] Hint: Peaked at 12.66' (Flood elevation advised)

Inflow Area =	3.000 ac,100.00% Impervious, Inflow Depth > 4.60" for 10-Year event				
Inflow =	16.96 cfs @	12.00 hrs,	Volume=	1.149 af	
Outflow =	16.96 cfs @	12.00 hrs,	Volume=	1.149 af,	Atten= 0%, Lag= 0.0 min
Primary =	14.78 cfs @	12.00 hrs,	Volume=	0.592 af	
Secondary =	2.18 cfs @	12.00 hrs,	Volume=	0.557 af	

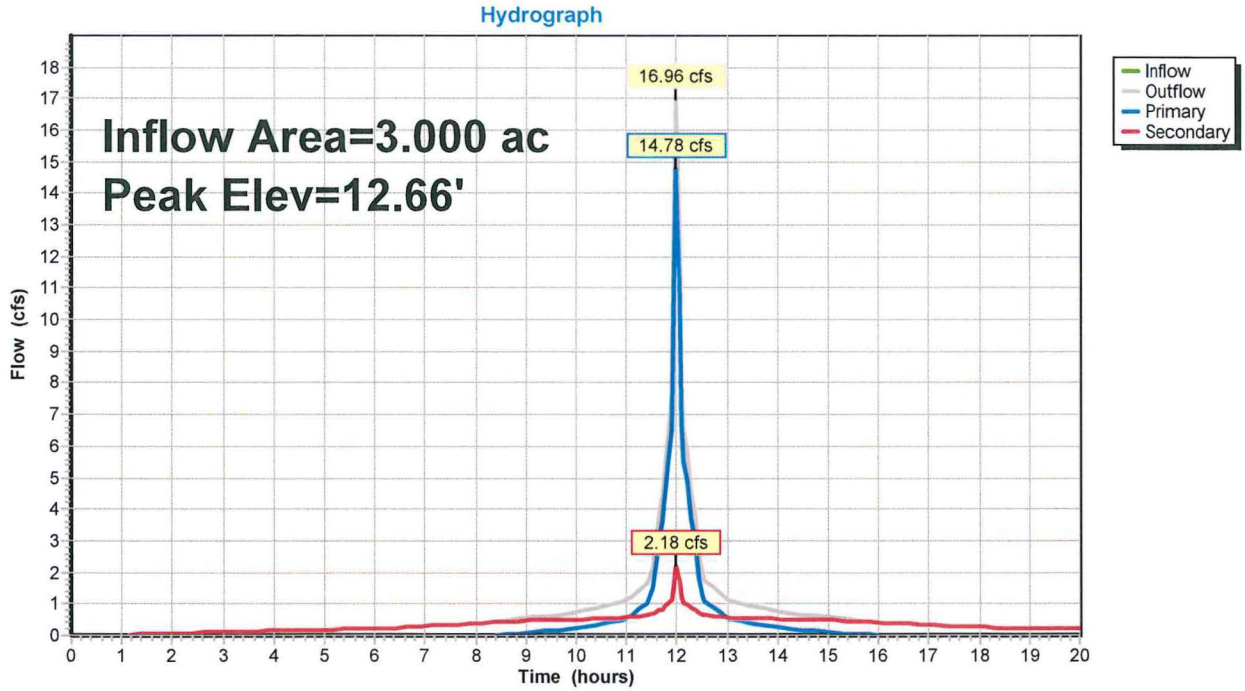
Routing by Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 12.66' @ 12.00 hrs

Device	Routing	Invert	Outlet Devices
#1	Secondary	7.10'	**6.0" Vert. Orifice/Grate** C= 0.600
#2	Primary	7.50'	**8.0" Vert. Orifice/Grate X 4.00** C= 0.600

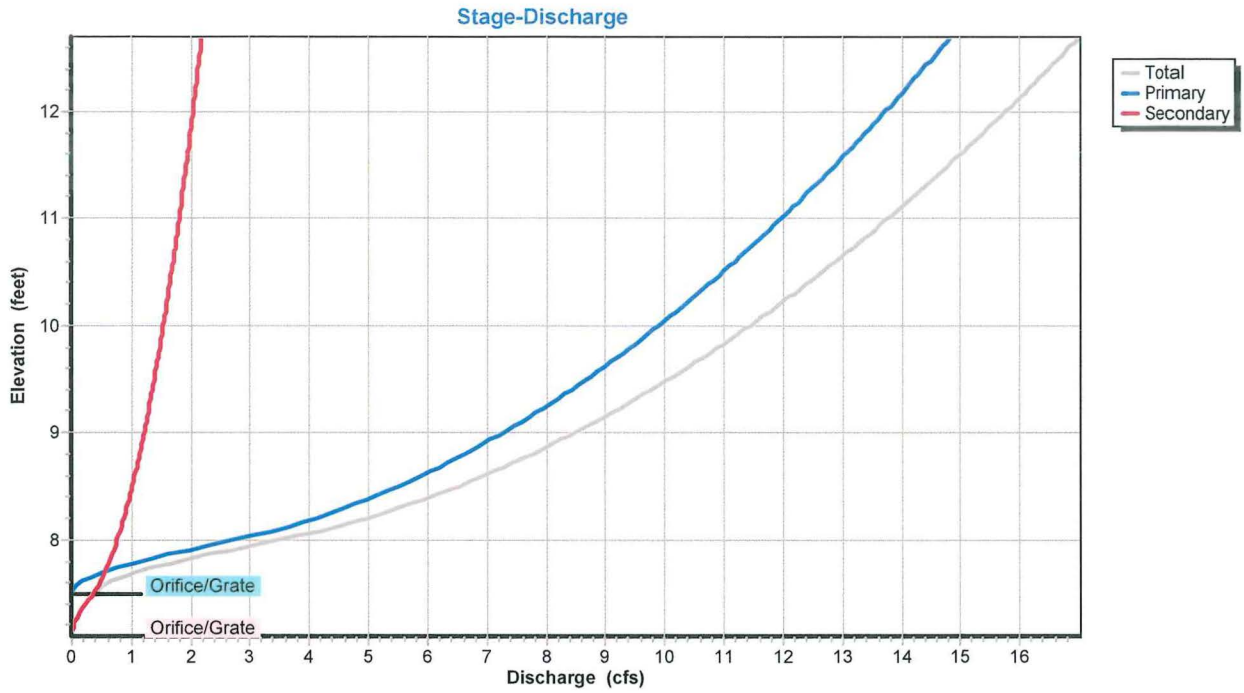
Primary OutFlow Max=14.71 cfs @ 12.00 hrs HW=12.62' (Free Discharge)
└**2=Orifice/Grate** (Orifice Controls 14.71 cfs @ 10.53 fps)

Secondary OutFlow Max=2.17 cfs @ 12.00 hrs HW=12.62' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 2.17 cfs @ 11.05 fps)

Pond DIV: P-DIV



Pond DIV: P-DIV



Stage-Area-Storage for Pond DIV: P-DIV

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
7.10	**0**	9.18	0	11.26	0
7.14	0	9.22	0	11.30	0
7.18	0	9.26	0	11.34	0
7.22	0	9.30	0	11.38	0
7.26	0	9.34	0	11.42	0
7.30	0	9.38	0	11.46	0
7.34	0	9.42	0	11.50	0
7.38	0	9.46	0	11.54	0
7.42	0	9.50	0	11.58	0
7.46	0	9.54	0	11.62	0
7.50	0	9.58	0	11.66	0
7.54	0	9.62	0	11.70	0
7.58	0	9.66	0	11.74	0
7.62	0	9.70	0	11.78	0
7.66	0	9.74	0	11.82	0
7.70	0	9.78	0	11.86	0
7.74	0	9.82	0	11.90	0
7.78	0	9.86	0	11.94	0
7.82	0	9.90	0	11.98	0
7.86	0	9.94	0	12.02	0
7.90	0	9.98	0	12.06	0
7.94	0	10.02	0	12.10	0
7.98	0	10.06	0	12.14	0
8.02	0	10.10	0	12.18	0
8.06	0	10.14	0	12.22	0
8.10	0	10.18	0	12.26	0
8.14	0	10.22	0	12.30	0
8.18	0	10.26	0	12.34	0
8.22	0	10.30	0	12.38	0
8.26	0	10.34	0	12.42	0
8.30	0	10.38	0	12.46	0
8.34	0	10.42	0	12.50	0
8.38	0	10.46	0	12.54	0
8.42	0	10.50	0	12.58	0
8.46	0	10.54	0	12.62	0
8.50	0	10.58	0	12.66	0
8.54	0	10.62	0		
8.58	0	10.66	0		
8.62	0	10.70	0		
8.66	0	10.74	0		
8.70	0	10.78	0		
8.74	0	10.82	0		
8.78	0	10.86	0		
8.82	0	10.90	0		
8.86	0	10.94	0		
8.90	0	10.98	0		
8.94	0	11.02	0		
8.98	0	11.06	0		
9.02	0	11.10	0		
9.06	0	11.14	0		
9.10	0	11.18	0		
9.14	0	11.22	0		

Summary for Subcatchment E-WS#1: E-WS#1 (Existing)

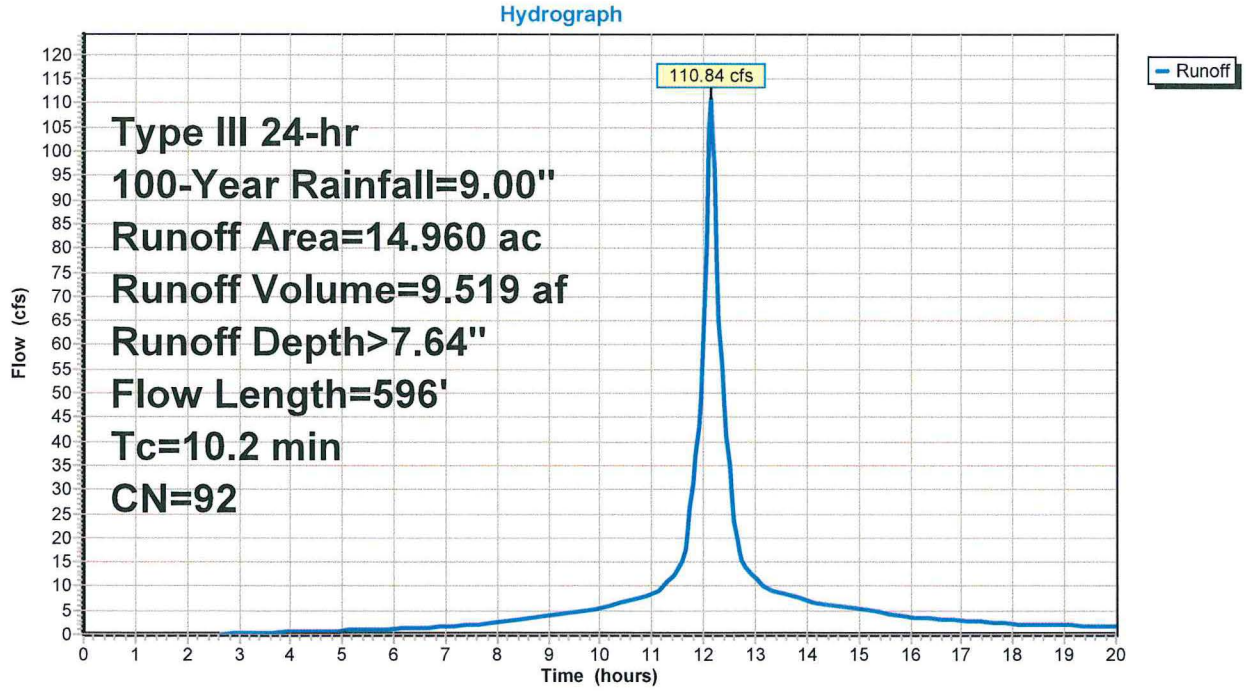
Runoff = 110.84 cfs @ 12.14 hrs, Volume= 9.519 af, Depth> 7.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=9.00"

	Area (ac)	CN	Description
*	2.550	98	Impervious, HSG C
*	2.550	98	Impervious, HSG D
	3.250	96	Gravel surface, HSG C
	3.250	96	Gravel surface, HSG D
	1.680	74	>75% Grass cover, Good, HSG C
	1.680	80	>75% Grass cover, Good, HSG D
	14.960	92	Weighted Average
	9.860		65.91% Pervious Area
	5.100		34.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	100	0.1100	0.24		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.38"
3.2	496	0.0160	2.57		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
10.2	596	Total			

Subcatchment E-WS#1: E-WS#1 (Existing)



Summary for Subcatchment P-WS#1A: P-WS#1A (Proposed)

[49] Hint: Tc<2dt may require smaller dt

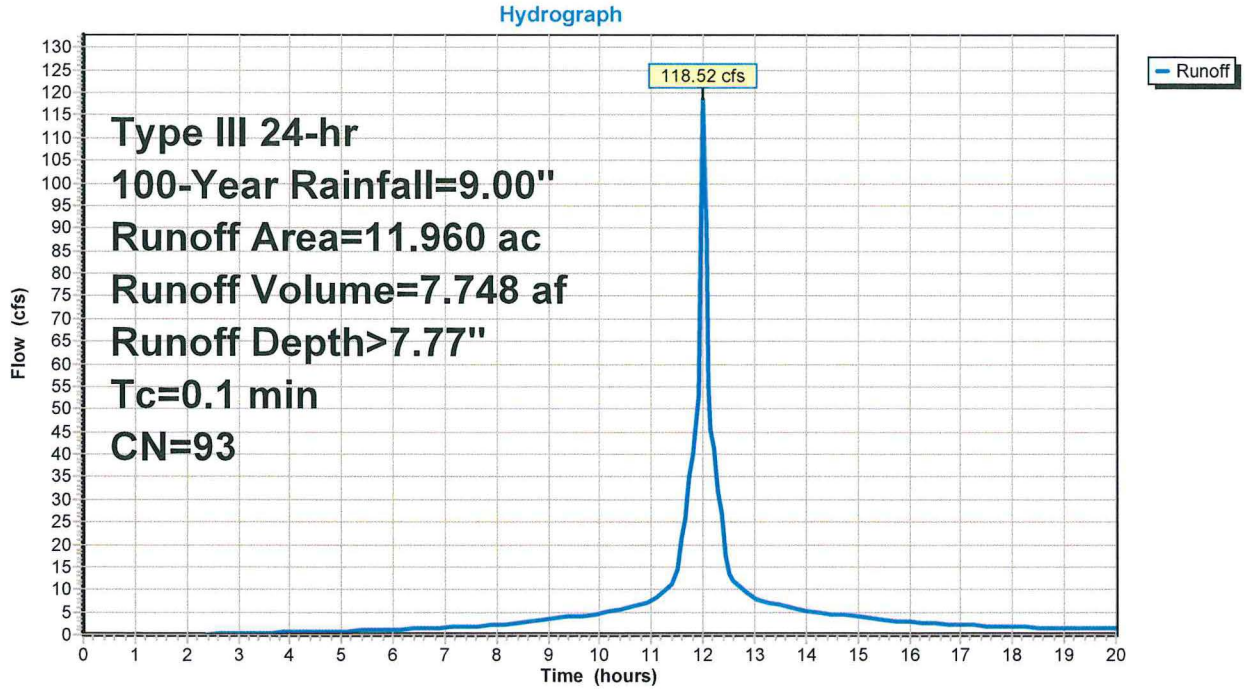
Runoff = 118.52 cfs @ 12.00 hrs, Volume= 7.748 af, Depth> 7.77"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=9.00"

Area (ac)	CN	Description
4.400	98	Paved parking, HSG C
4.400	98	Paved parking, HSG D
0.350	89	Gravel roads, HSG C
0.350	91	Gravel roads, HSG D
1.230	74	>75% Grass cover, Good, HSG C
1.230	80	>75% Grass cover, Good, HSG D
11.960	93	Weighted Average
3.160		26.42% Pervious Area
8.800		73.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1					**Direct Entry,**

Subcatchment P-WS#1A: P-WS#1A (Proposed)



Summary for Subcatchment P-WS#1B: P-WS#1B (Proposed)

[49] Hint: Tc<2dt may require smaller dt

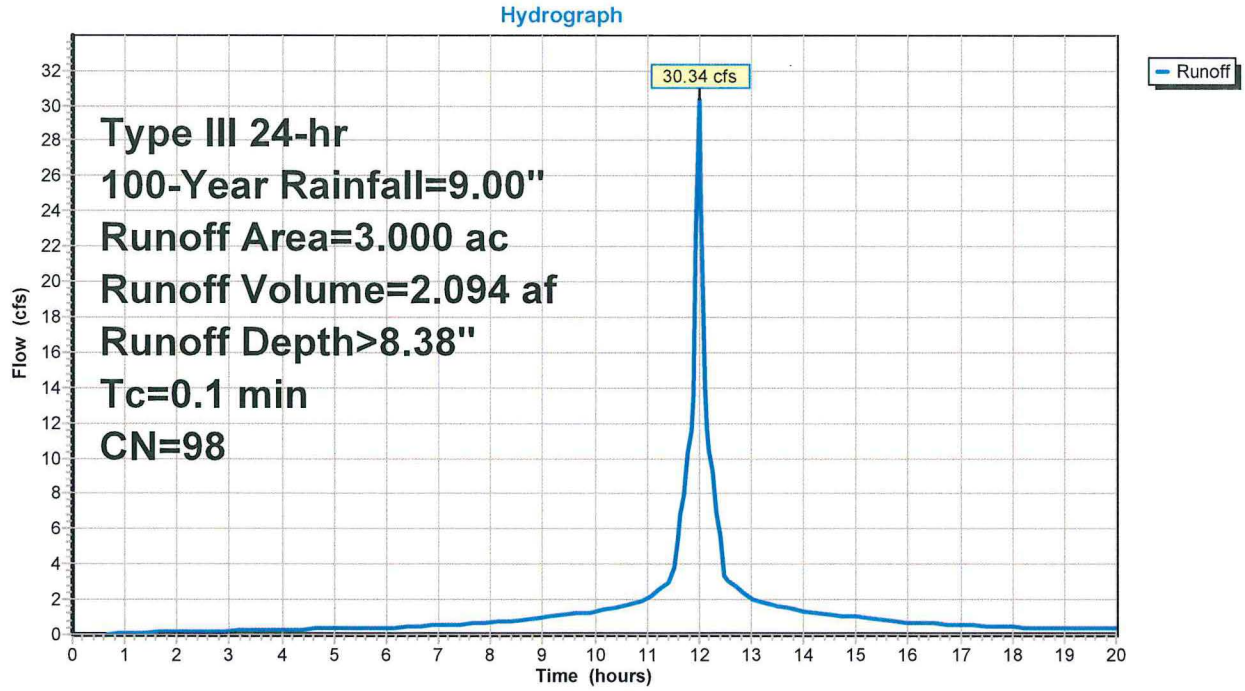
Runoff = 30.34 cfs @ 12.00 hrs, Volume= 2.094 af, Depth> 8.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=9.00"

Area (ac)	CN	Description
1.500	98	Roofs, HSG C
1.500	98	Roofs, HSG D
3.000	98	Weighted Average
3.000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1					**Direct Entry,**

Subcatchment P-WS#1B: P-WS#1B (Proposed)



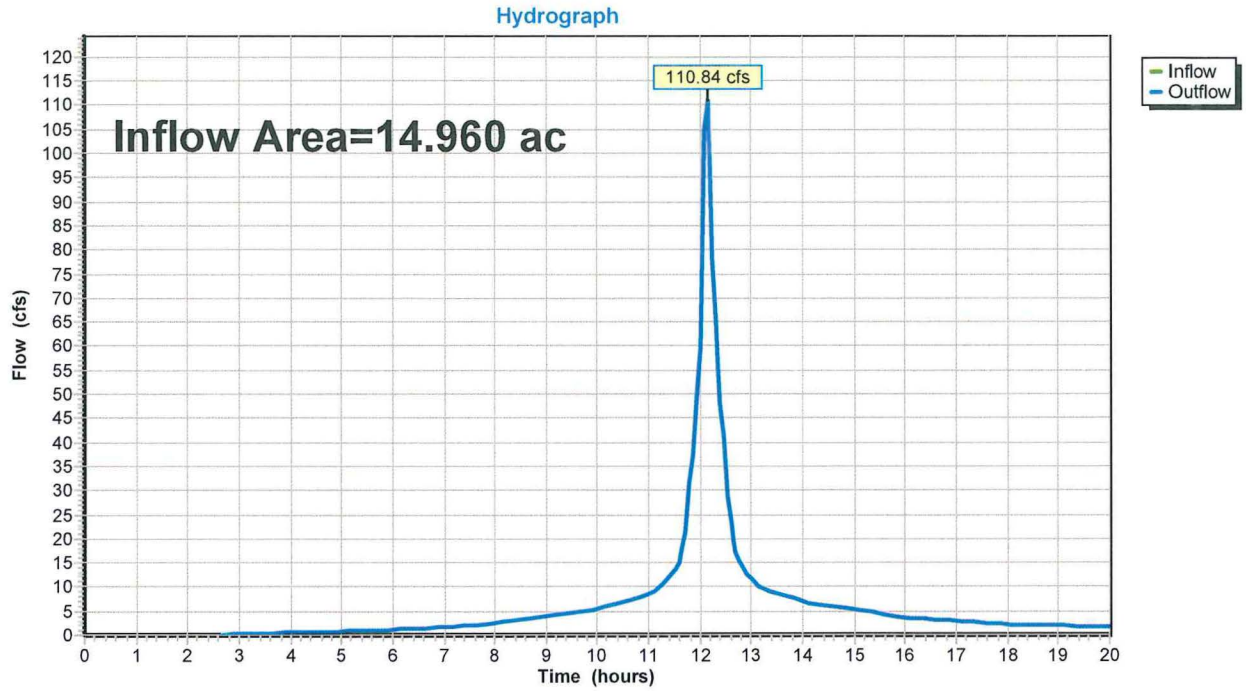
Summary for Reach E-POI#1: E-POI#1 (Existing)

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 14.960 ac, 34.09% Impervious, Inflow Depth > 7.64" for 100-Year event
Inflow = 110.84 cfs @ 12.14 hrs, Volume= 9.519 af
Outflow = 110.84 cfs @ 12.14 hrs, Volume= 9.519 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs

Reach E-POI#1: E-POI#1 (Existing)



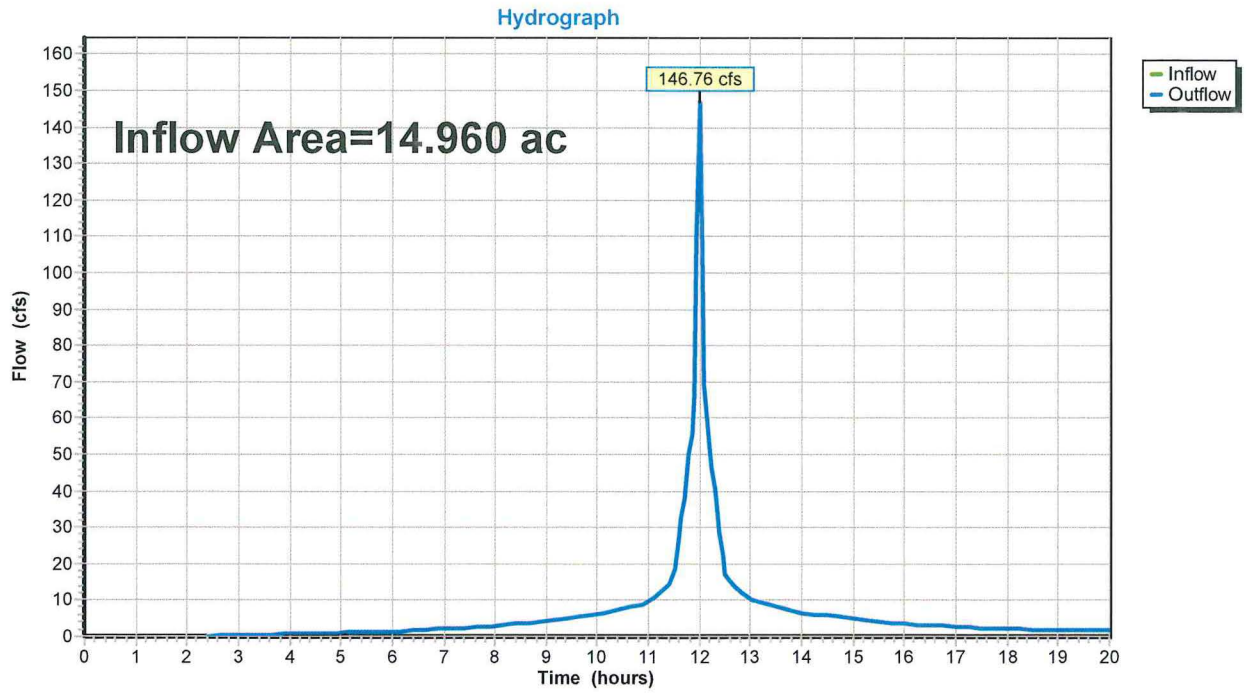
Summary for Reach P-POI#1: P-POI#1 (Developed)

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 14.960 ac, 78.88% Impervious, Inflow Depth > 7.85" for 100-Year event
Inflow = 146.76 cfs @ 12.00 hrs, Volume= 9.792 af
Outflow = 146.76 cfs @ 12.00 hrs, Volume= 9.792 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs

Reach P-POI#1: P-POI#1 (Developed)



Summary for Pond BIO-F: BIO-FILTERS

Inflow	=	3.79 cfs @	12.00 hrs,	Volume=	0.791 af
Outflow	=	1.96 cfs @	12.11 hrs,	Volume=	0.741 af, Atten= 48%, Lag= 6.4 min
Primary	=	1.96 cfs @	12.11 hrs,	Volume=	0.741 af

Routing by Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 3.27' @ 12.11 hrs Surf.Area= 12,777 sf Storage= 3,926 cf

Plug-Flow detention time= 73.9 min calculated for 0.741 af (94% of inflow)
Center-of-Mass det. time= 42.4 min (727.6 - 685.2)

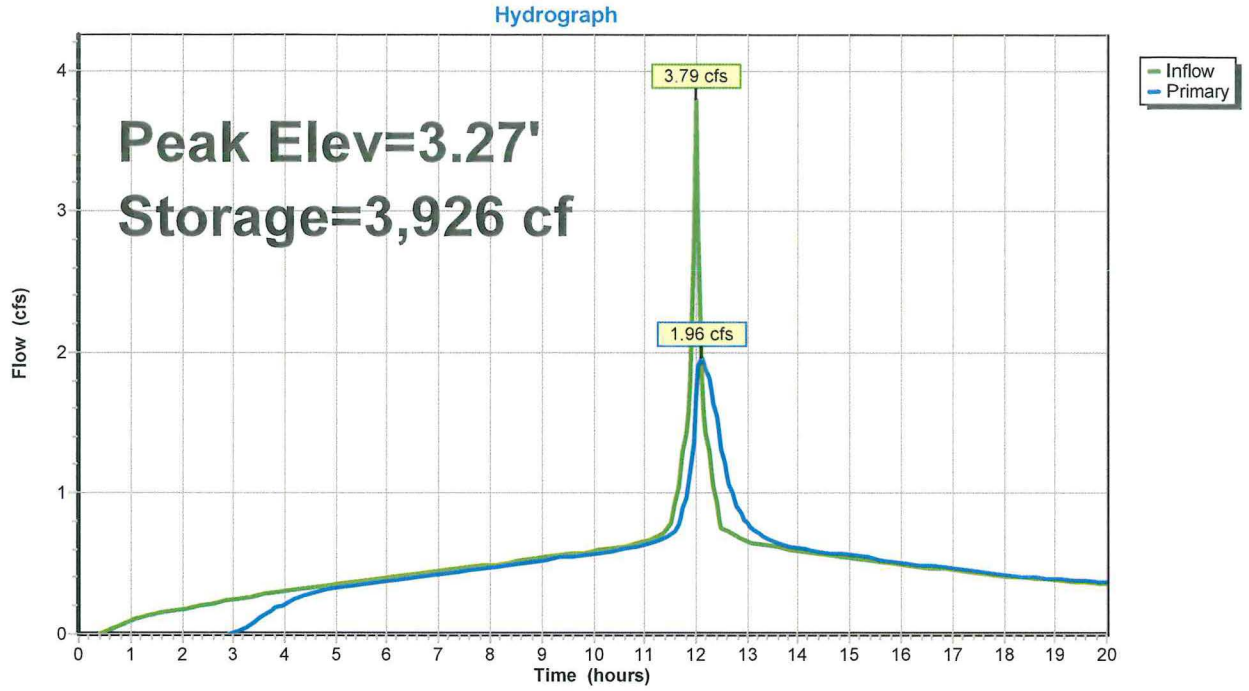
Volume	Invert	Avail.Storage	Storage Description
#1	2.50'	29,277 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
2.50	12,777	0.0	0	0
3.50	12,777	40.0	5,111	5,111
6.99	12,777	20.0	8,918	14,029
7.00	12,777	100.0	128	14,157
8.00	17,464	100.0	15,121	29,277

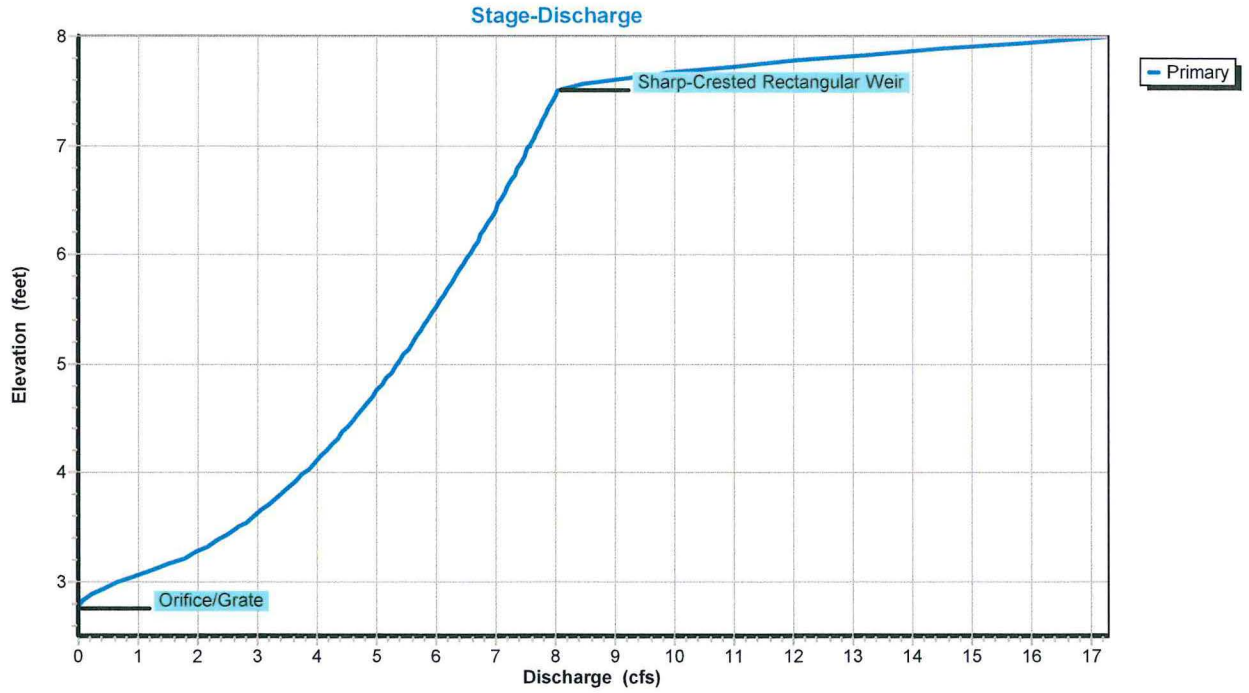
Device	Routing	Invert	Outlet Devices
#1	Primary	2.75'	**6.0" Vert. Orifice/Grate X 4.00** C= 0.600
#2	Primary	7.50'	**2.0' long Sharp-Crested Rectangular Weir X 4.00** 2 End Contraction(s)

Primary OutFlow Max=1.95 cfs @ 12.11 hrs HW=3.27' (Free Discharge)
└─**1=Orifice/Grate** (Orifice Controls 1.95 cfs @ 2.49 fps)
└─**2=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond BIO-F: BIO-FILTERS



Pond BIO-F: BIO-FILTERS



Stage-Area-Storage for Pond BIO-F: BIO-FILTERS

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
2.50	12,777	0
2.60	12,777	511
2.70	12,777	1,022
2.80	12,777	1,533
2.90	12,777	2,044
3.00	12,777	2,555
3.10	12,777	3,066
3.20	12,777	3,578
3.30	12,777	4,089
3.40	12,777	4,600
3.50	12,777	5,111
3.60	12,777	5,366
3.70	12,777	5,622
3.80	12,777	5,877
3.90	12,777	6,133
4.00	12,777	6,389
4.10	12,777	6,644
4.20	12,777	6,900
4.30	12,777	7,155
4.40	12,777	7,411
4.50	12,777	7,666
4.60	12,777	7,922
4.70	12,777	8,177
4.80	12,777	8,433
4.90	12,777	8,688
5.00	12,777	8,944
5.10	12,777	9,199
5.20	12,777	9,455
5.30	12,777	9,711
5.40	12,777	9,966
5.50	12,777	10,222
5.60	12,777	10,477
5.70	12,777	10,733
5.80	12,777	10,988
5.90	12,777	11,244
6.00	12,777	11,499
6.10	12,777	11,755
6.20	12,777	12,010
6.30	12,777	12,266
6.40	12,777	12,521
6.50	12,777	12,777
6.60	12,777	13,033
6.70	12,777	13,288
6.80	12,777	13,544
6.90	12,777	13,799
7.00	12,777	14,157
7.10	13,246	15,458
7.20	13,714	16,806
7.30	14,183	18,201
7.40	14,652	19,643
7.50	15,121	21,131
7.60	15,589	22,667
7.70	16,058	24,249
7.80	16,527	25,878
7.90	16,995	27,554
8.00	**17,464**	**29,277**

Summary for Pond DIV: P-DIV

[57] Hint: Peaked at 23.42' (Flood elevation advised)

Inflow Area =	3.000 ac,100.00% Impervious, Inflow Depth > 8.38" for 100-Year event				
Inflow =	30.34 cfs @	12.00 hrs,	Volume=	2.094 af	
Outflow =	30.34 cfs @	12.00 hrs,	Volume=	2.094 af,	Atten= 0%, Lag= 0.0 min
Primary =	26.55 cfs @	12.00 hrs,	Volume=	1.302 af	
Secondary =	3.79 cfs @	12.00 hrs,	Volume=	0.791 af	

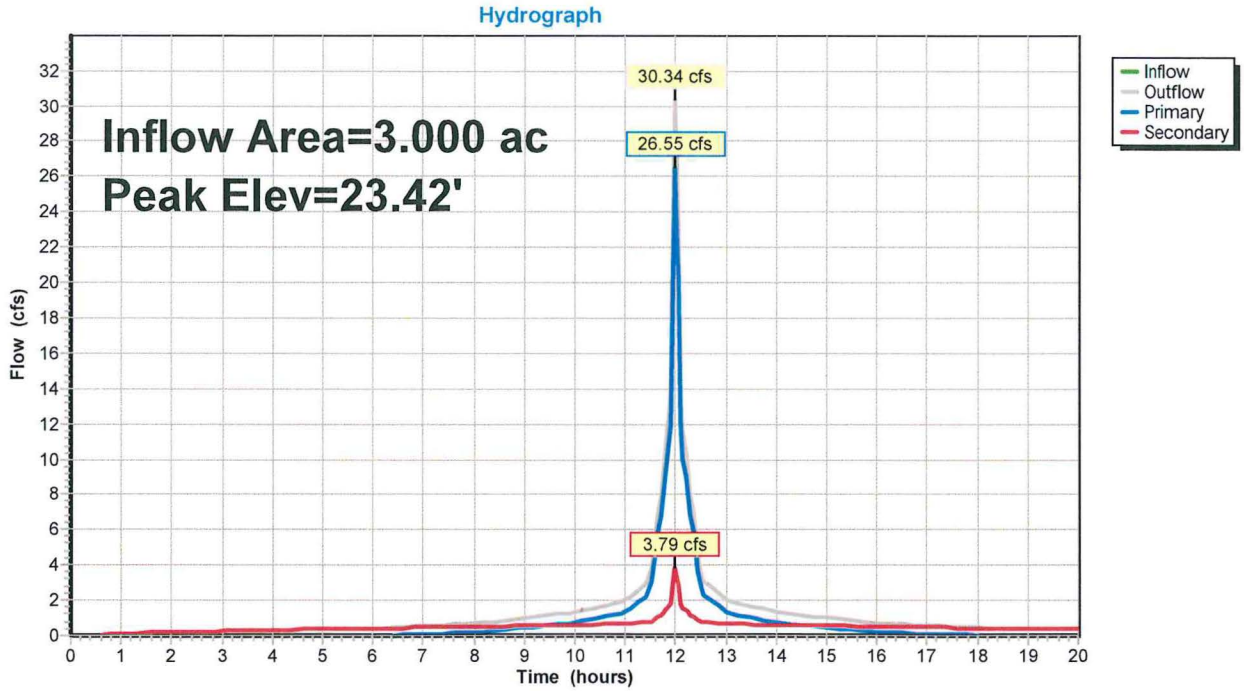
Routing by Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 23.42' @ 12.00 hrs

Device	Routing	Invert	Outlet Devices
#1	Secondary	7.10'	**6.0" Vert. Orifice/Grate** C= 0.600
#2	Primary	7.50'	**8.0" Vert. Orifice/Grate X 4.00** C= 0.600

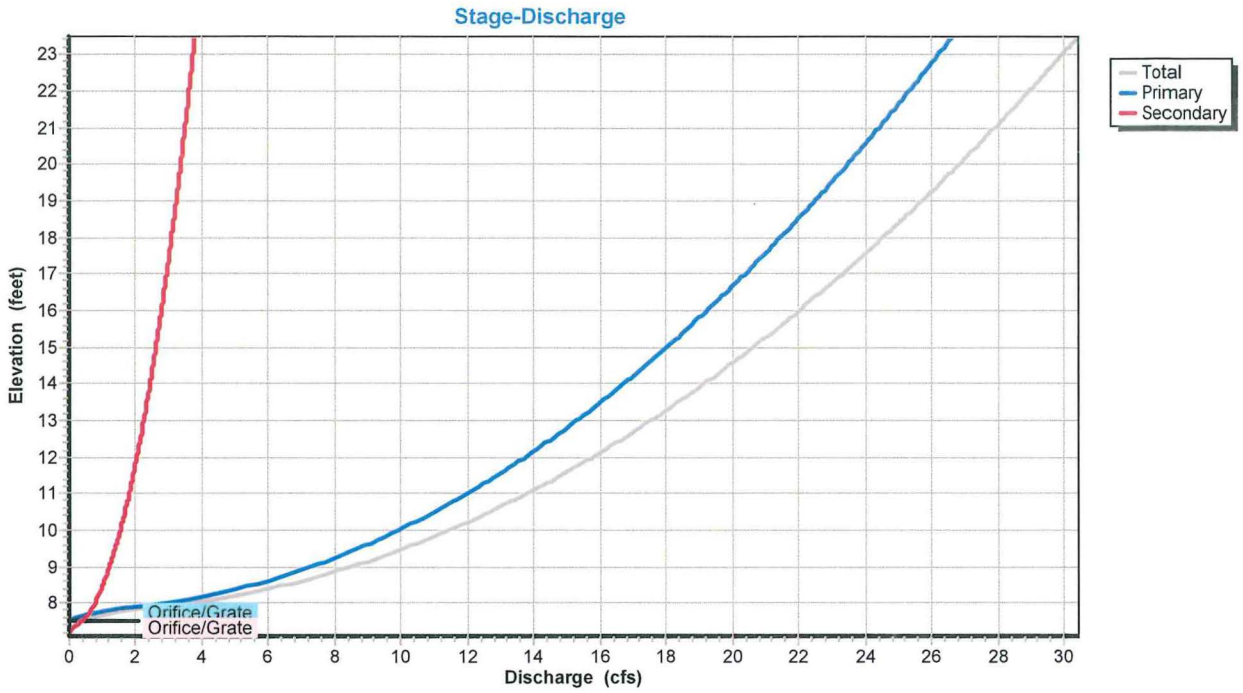
Primary OutFlow Max=26.42 cfs @ 12.00 hrs HW=23.28' (Free Discharge)
└**2=Orifice/Grate** (Orifice Controls 26.42 cfs @ 18.93 fps)

Secondary OutFlow Max=3.77 cfs @ 12.00 hrs HW=23.28' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 3.77 cfs @ 19.22 fps)

Pond DIV: P-DIV



Pond DIV: P-DIV



Stage-Area-Storage for Pond DIV: P-DIV

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
7.10	**0**	17.50	0
7.30	0	17.70	0
7.50	0	17.90	0
7.70	0	18.10	0
7.90	0	18.30	0
8.10	0	18.50	0
8.30	0	18.70	0
8.50	0	18.90	0
8.70	0	19.10	0
8.90	0	19.30	0
9.10	0	19.50	0
9.30	0	19.70	0
9.50	0	19.90	0
9.70	0	20.10	0
9.90	0	20.30	0
10.10	0	20.50	0
10.30	0	20.70	0
10.50	0	20.90	0
10.70	0	21.10	0
10.90	0	21.30	0
11.10	0	21.50	0
11.30	0	21.70	0
11.50	0	21.90	0
11.70	0	22.10	0
11.90	0	22.30	0
12.10	0	22.50	0
12.30	0	22.70	0
12.50	0	22.90	0
12.70	0	23.10	0
12.90	0	23.30	0
13.10	0		
13.30	0		
13.50	0		
13.70	0		
13.90	0		
14.10	0		
14.30	0		
14.50	0		
14.70	0		
14.90	0		
15.10	0		
15.30	0		
15.50	0		
15.70	0		
15.90	0		
16.10	0		
16.30	0		
16.50	0		
16.70	0		
16.90	0		
17.10	0		
17.30	0		

EAGLE BAY

TOWN OF STONY POINT
ROCKLAND COUNTY
NEW YORK

SECTION 3:

SPDES ACKNOWLEDGEMENT LETTER, FILLED OUT NOTICE OF INTENT (N.O.I.), AND MS4 SWPPP ACCEPTANCE FORM

BY

ATZL, NASHER & ZIGLER P.C.
ENGINEERS-SURVEYORS-PLANNERS
234 NORTH MAIN STREET
NEW CITY, NY 10956
TEL: (845) 634-4694
FAX: (845) 634-5543
E-MAIL: rnasher@anzny.com

0644089821

NOTICE OF INTENT

New York State Department of Environmental Conservation
Division of Water
625 Broadway, 4th Floor
Albany, New York 12233-3505

NYR [ ][ ][ ][ ][ ][ ]
(for DEC use only)

Stormwater Discharges Associated with Construction Activity Under State Pollutant Discharge Elimination System (SPDES) General Permit # GP-0-15-002

All sections must be completed unless otherwise noted. Failure to complete all items may result in this form being returned to you, thereby delaying your coverage under this General Permit. Applicants must read and understand the conditions of the permit and prepare a Stormwater Pollution Prevention Plan prior to submitting this NOI. Applicants are responsible for identifying and obtaining other DEC permits that may be required.

-IMPORTANT-

RETURN THIS FORM TO THE ADDRESS ABOVE

OWNER/OPERATOR MUST SIGN FORM

Owner/Operator Information

Owner/Operator (Company Name/Private Owner Name/Municipality Name)
BREAKERS STONY POINT LP

Owner/Operator Contact Person Last Name (NOT CONSULTANT)
HERSKOWITZ

Owner/Operator Contact Person First Name
ELI

Owner/Operator Mailing Address
3 EASTVIEW ROAD

City
MONSEY

State
NY

Zip
10952 -

Phone (Owner/Operator)
914 - 403 - 8228

Fax (Owner/Operator)
- -

Email (Owner/Operator)
elihersskowitz@gmail.com

FED TAX ID
- (not required for individuals)

Project Site Information

Project/Site Name

EAGLE BAY

Street Address (NOT P.O. BOX)

36 HUDSON DRIVE

Side of Street

○ **North** ○ **South** ● **East** ○ **West**

City/Town/Village (THAT ISSUES BUILDING PERMIT)

TOWN OF STONY POINT

State: NY

Zip: 10980 -

County: ROCKLAND

DEC Region: 3

Name of Nearest Cross Street

TOMKINS AVENUE

Distance to Nearest Cross Street (Feet)

800

Project In Relation to Cross Street

● **North** ○ **South** ○ **East** ○ **West**

Tax Map Numbers
Section-Block-Parcel

15.04-6-3,4 & 6

Tax Map Numbers

1. Provide the Geographic Coordinates for the project site in NYTM Units. To do this you **must** go to the NYSDEC Stormwater Interactive Map on the DEC website at:

www.dec.ny.gov/imsmaps/stormwater/viewer.htm

Zoom into your Project Location such that you can accurately click on the centroid of your site. Once you have located your project site, go to the tool boxes on the top and choose "i"(identify). Then click on the center of your site and a new window containing the X, Y coordinates in UTM will pop up. Transcribe these coordinates into the boxes below. For problems with the interactive map use the help function.

X Coordinates (Easting): 585815

Y Coordinates (Northing): 4565380

2. What is the nature of this construction project?

○ **New Construction**

● **Redevelopment with increase in impervious area**

○ **Redevelopment with no increase in impervious area**

3. Select the predominant land use for both pre and post development conditions.
SELECT ONLY ONE CHOICE FOR EACH

Pre-Development Existing Land Use

- ○ FOREST
- ○ PASTURE/OPEN LAND
- ○ CULTIVATED LAND
- ○ SINGLE FAMILY HOME
- ○ SINGLE FAMILY SUBDIVISION
- ○ TOWN HOME RESIDENTIAL
- ○ MULTIFAMILY RESIDENTIAL
- ○ INSTITUTIONAL/SCHOOL
- ○ INDUSTRIAL
- ● COMMERCIAL
- ○ ROAD/HIGHWAY
- ○ RECREATIONAL/SPORTS FIELD
- ○ BIKE PATH/TRAIL
- ○ LINEAR UTILITY
- ○ PARKING LOT
- ○ OTHER

Post-Development Future Land Use

- ○ SINGLE FAMILY HOME
- ○ SINGLE FAMILY SUBDIVISION — Number of Lots
- ○ TOWN HOME RESIDENTIAL
- ● MULTIFAMILY RESIDENTIAL
- ○ INSTITUTIONAL/SCHOOL
- ○ INDUSTRIAL
- ○ COMMERCIAL
- ○ MUNICIPAL
- ○ ROAD/HIGHWAY
- ○ RECREATIONAL/SPORTS FIELD
- ○ BIKE PATH/TRAIL
- ○ LINEAR UTILITY (water, sewer, gas, etc.)
- ○ PARKING LOT
- ○ CLEARING/GRADING ONLY
- ○ DEMOLITION, NO REDEVELOPMENT
- ○ WELL DRILLING ACTIVITY *(Oil, Gas, etc.)
- ○ OTHER

***Note:** for gas well drilling, non-high volume hydraulic fractured wells only

4. In accordance with the larger common plan of development or sale, enter the total project site area; the total area to be disturbed; existing impervious area to be disturbed (for redevelopment activities); and the future impervious area constructed within the disturbed area. (Round to the nearest tenth of an acre.)

Total Site Area	Total Area To Be Disturbed	Existing Impervious Area To Be Disturbed	Future Impervious Area Within Disturbed Area
15.0	15.0	11.6	11.8

5. Do you plan to disturb more than 5 acres of soil at any one time? ○ **Yes** ● **No**

6. Indicate the percentage of each Hydrologic Soil Group(HSG) at the site.

A	B	C	D
%	%	50 %	50 %

7. Is this a phased project? ○ **Yes** ○ **No**

8. Enter the planned start and end dates of the disturbance activities.

Start Date 08/01/2019 – **End Date** 10/01/2021

9. Identify the nearest surface waterbody(ies) to which construction site runoff will discharge.

Name

HUDSON RIVER

9a. Type of waterbody identified in Question 9?

- ○ Wetland / State Jurisdiction On Site (Answer 9b)
- ○ Wetland / State Jurisdiction Off Site
- ○ Wetland / Federal Jurisdiction On Site (Answer 9b)
- ○ Wetland / Federal Jurisdiction Off Site
- ○ Stream / Creek On Site
- ○ Stream / Creek Off Site
- ○ River On Site
- ● River Off Site
- ○ Lake On Site
- ○ Lake Off Site
- ○ Other Type On Site
- ○ Other Type Off Site

9b. How was the wetland identified?

- ○ Regulatory Map
- ○ Delineated by Consultant
- ○ Delineated by Army Corps of Engineers
- ○ Other (identify)

10. Has the surface waterbody(ies) in question 9 been identified as a 303(d) segment in Appendix E of GP-0-15-002? ○ **Yes** ● **No**

11. Is this project located in one of the Watersheds identified in Appendix C of GP-0-15-002? ○ **Yes** ● **No**

12. Is the project located in one of the watershed areas associated with AA and AA-S classified waters? ○ **Yes** ● **No**
If no, skip question 13.

13. Does this construction activity disturb land with no existing impervious cover and where the Soil Slope Phase is identified as an E or F on the USDA Soil Survey? ○ **Yes** ○ **No**
If Yes, what is the acreage to be disturbed?

14. Will the project disturb soils within a State regulated wetland or the protected 100 foot adjacent area? ○ **Yes** ● **No**

15. Does the site runoff enter a separate storm sewer system (including roadside drains, swales, ditches, culverts, etc)? ● **Yes** ○ **No** ○ **Unknown**

16. What is the name of the municipality/entity that owns the separate storm sewer system?

TOWN OF STONY POINT

17. Does any runoff from the site enter a sewer classified as a Combined Sewer? ○ **Yes** ● **No** ○ **Unknown**

18. Will future use of this site be an agricultural property as defined by the NYS Agriculture and Markets Law? ○ **Yes** ● **No**

19. Is this property owned by a state authority, state agency, federal government or local government? ○ **Yes** ● **No**

20. Is this a remediation project being done under a Department approved work plan? (i.e. CERCLA, RCRA, Voluntary Cleanup Agreement, etc.) ○ **Yes** ● **No**

21. Has the required Erosion and Sediment Control component of the SWPPP been developed in conformance with the current NYS Standards and Specifications for Erosion and Sediment Control (aka Blue Book)? ● **Yes** ○ **No**

22. Does this construction activity require the development of a SWPPP that includes the post-construction stormwater management practice component (i.e. Runoff Reduction, Water Quality and Quantity Control practices/techniques)? ● **Yes** ○ **No**
If No, skip questions 23 and 27-39.

23. Has the post-construction stormwater management practice component of the SWPPP been developed in conformance with the current NYS Stormwater Management Design Manual? ● **Yes** ○ **No**

24. The Stormwater Pollution Prevention Plan (SWPPP) was prepared by:

- ● **Professional Engineer (P.E.)**
- ○ **Soil and Water Conservation District (SWCD)**
- ○ **Registered Landscape Architect (R.L.A)**
- ○ **Certified Professional in Erosion and Sediment Control (CPESC)**
- ○ **Owner/Operator**
- ○ **Other**

SWPPP Preparer: ATZL, NASHER & ZIGLER P.C.

Contact Name (Last, Space, First): NASHER, RYAN

Mailing Address: 232 NORTH MAIN STREET

City: NEW CITY

State: NY Zip: 10956-

Phone: 845-634-4694 Fax: 845-634-5543

Email: RNASHER@ANZNY.COM

SWPPP Preparer Certification

I hereby certify that the Stormwater Pollution Prevention Plan (SWPPP) for this project has been prepared in accordance with the terms and conditions of the GP-0-15-002. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of this permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

First Name: RYAN **MI**: A

Last Name: NASHER

Signature

Date / /

25. Has a construction sequence schedule for the planned management practices been prepared? ● Yes ○ No

26. Select **all** of the erosion and sediment control practices that will be employed on the project site:

Temporary Structural

- ○ Check Dams
- ○ Construction Road Stabilization
- ○ Dust Control
- ○ Earth Dike
- ○ Level Spreader
- ○ Perimeter Dike/Swale
- ○ Pipe Slope Drain
- ○ Portable Sediment Tank
- ○ Rock Dam
- ○ Sediment Basin
- ○ Sediment Traps
- ● Silt Fence
- ● Stabilized Construction Entrance
- ● Storm Drain Inlet Protection
- ○ Straw/Hay Bale Dike
- ○ Temporary Access Waterway Crossing
- ○ Temporary Stormdrain Diversion
- ○ Temporary Swale
- ○ Turbidity Curtain
- ○ Water bars

Biotechnical

- ○ Brush Matting
- ○ Wattling

Vegetative Measures

- ○ Brush Matting
- ○ Dune Stabilization
- ○ Grassed Waterway
- ● Mulching
- ○ Protecting Vegetation
- ○ Recreation Area Improvement
- ● Seeding
- ○ Sodding
- ○ Straw/Hay Bale Dike
- ○ Streambank Protection
- ○ Temporary Swale
- ● Topsoiling
- ○ Vegetating Waterways

Permanent Structural

- ○ Debris Basin
- ○ Diversion
- ○ Grade Stabilization Structure
- ● Land Grading
- ○ Lined Waterway (Rock)
- ○ Paved Channel (Concrete)
- ○ Paved Flume
- ● Retaining Wall
- ○ Riprap Slope Protection
- ○ Rock Outlet Protection
- ○ Streambank Protection

Other

Post-construction Stormwater Management Practice (SMP) Requirements

Important: Completion of Questions 27-39 is not required if response to Question 22 is No.

27. Identify all site planning practices that were used to prepare the final site plan/layout for the project.

- ● **Preservation of Undisturbed Areas**
- ○ **Preservation of Buffers**
- ○ **Reduction of Clearing and Grading**
- ○ **Locating Development in Less Sensitive Areas**
- ○ **Roadway Reduction**
- ○ **Sidewalk Reduction**
- ○ **Driveway Reduction**
- ○ **Cul-de-sac Reduction**
- ○ **Building Footprint Reduction**
- ○ **Parking Reduction**

27a. Indicate which of the following soil restoration criteria was used to address the requirements in Section 5.1.6("Soil Restoration") of the Design Manual (2010 version).

- ● All disturbed areas will be restored in accordance with the Soil Restoration requirements in Table 5.3 of the Design Manual (see page 5-22).
- ○ Compacted areas were considered as impervious cover when calculating the **WQv Required,** and the compacted areas were assigned a post-construction Hydrologic Soil Group (HSG) designation that is one level less permeable than existing conditions for the hydrology analysis.

28. Provide the total Water Quality Volume (WQv) required for this project (based on final site plan/layout).

Total WQv Required

		0	.	4	4	2	**acre-feet**

29. Identify the RR techniques (Area Reduction), RR techniques(Volume Reduction) and Standard SMPs with RRv Capacity in Table 1 (See Page 9) that were used to reduce the Total WQv Required(#28).

Also, provide in Table 1 the total impervious area that contributes runoff to each technique/practice selected. For the Area Reduction Techniques, provide the total contributing area (includes pervious area) and, if applicable, the total impervious area that contributes runoff to the technique/practice.

Note: Redevelopment projects shall use Tables 1 and 2 to identify the SMPs used to treat and/or reduce the WQv required. If runoff reduction techniques will not be used to reduce the required WQv, skip to question 33a after identifying the SMPs.

Table 1 - Runoff Reduction (RR) Techniques and Standard Stormwater Management Practices (SMPs)

	Total Contributing Area (acres)		Total Contributing Impervious Area (acres)
RR Techniques (Area Reduction)			
○ Conservation of Natural Areas (RR-1)		and/or	
○ Sheetflow to Riparian Buffers/Filters Strips (RR-2)		and/or	
○ Tree Planting/Tree Pit (RR-3)		and/or	
○ Disconnection of Rooftop Runoff (RR-4)		and/or	
RR Techniques (Volume Reduction)			
○ Vegetated Swale (RR-5)			
○ Rain Garden (RR-6)			
○ Stormwater Planter (RR-7)			
○ Rain Barrel/Cistern (RR-8)			
○ Porous Pavement (RR-9)			
○ Green Roof (RR-10)			
Standard SMPs with RRv Capacity			
○ Infiltration Trench (I-1)			
○ Infiltration Basin (I-2)			
○ Dry Well (I-3)			
○ Underground Infiltration System (I-4)			
● Bioretention (F-5)			3.10
○ Dry Swale (O-1)			
Standard SMPs			
○ Micropool Extended Detention (P-1)			
○ Wet Pond (P-2)			
○ Wet Extended Detention (P-3)			
○ Multiple Pond System (P-4)			
○ Pocket Pond (P-5)			
○ Surface Sand Filter (F-1)			
○ Underground Sand Filter (F-2)			
○ Perimeter Sand Filter (F-3)			
○ Organic Filter (F-4)			
○ Shallow Wetland (W-1)			
○ Extended Detention Wetland (W-2)			
○ Pond/Wetland System (W-3)			
○ Pocket Wetland (W-4)			
○ Wet Swale (O-2)			

Table 2 - Alternative SMPs (DO NOT INCLUDE PRACTICES BEING USED FOR PRETREATMENT ONLY)

Alternative SMP	Total Contributing Impervious Area(acres)
○ **Hydrodynamic**	
○ **Wet Vault**	
○ **Media Filter**	
○ **Other**	

Provide the name and manufacturer of the Alternative SMPs (i.e. proprietary practice(s)) being used for WQv treatment.

Name

Manufacturer

Note: Redevelopment projects which do not use RR techniques, shall use questions 28, 29, 33 and 33a to provide SMPs used, total WQv required and total WQv provided for the project.

30. Indicate the Total RRv provided by the RR techniques (Area/Volume Reduction) and Standard SMPs with RRv capacity identified in question 29.

Total RRv provided

0.485 **acre-feet**

31. Is the Total RRv provided (#30) greater than or equal to the total WQv required (#28).

● **Yes** ○ **No**

If Yes, go to question 36.
If No, go to question 32.

32. Provide the Minimum RRv required based on HSG.
[Minimum RRv Required = (P)(0.95)(Ai)/12, Ai=(S)(Aic)]

Minimum RRv Required

. **acre-feet**

32a. Is the Total RRv provided (#30) greater than or equal to the Minimum RRv Required (#32)?

○ **Yes** ○ **No**

If Yes, go to question 33.
Note: Use the space provided in question #39 to summarize the specific site limitations and justification for not reducing 100% of WQv required (#28). A detailed evaluation of the specific site limitations and justification for not reducing 100% of the WQv required (#28) must also be included in the SWPPP.
If No, sizing criteria has not been met, so NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.

33. Identify the Standard SMPs in Table 1 and, if applicable, the Alternative SMPs in Table 2 that were used to treat the remaining total WQv(=Total WQv Required in 28 - Total RRv Provided in 30).

Also, provide in Table 1 and 2 the total impervious area that contributes runoff to each practice selected.

Note: Use Tables 1 and 2 to identify the SMPs used on Redevelopment projects.

33a. Indicate the Total WQv provided (i.e. WQv treated) by the SMPs identified in question #33 and Standard SMPs with RRv Capacity identified in question 29.

WQv Provided

[ ][ ][ ].[ ][ ][ ] **acre-feet**

Note: For the standard SMPs with RRv capacity, the WQv provided by each practice = the WQv calculated using the contributing drainage area to the practice - RRv provided by the practice. (See Table 3.5 in Design Manual)

34. Provide the sum of the Total RRv provided (#30) and the WQv provided (#33a). [ ][ ][ ].[ ][ ][ ]

35. Is the sum of the RRv provided (#30) and the WQv provided (#33a) greater than or equal to the total WQv required (#28)? ○ **Yes** ○ **No**

If Yes, go to question 36.
If No, sizing criteria has not been met, so NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.

36. Provide the total Channel Protection Storage Volume (CPv) required and provided or select waiver (36a), if applicable.

CPv Required

[ ][ ][ ].[ ][ ][ ] **acre-feet**

CPv Provided

[ ][ ][ ].[ ][ ][ ] **acre-feet**

36a. The need to provide channel protection has been waived because:

● Site discharges directly to tidal waters or a fifth order or larger stream.

○ Reduction of the total CPv is achieved on site through runoff reduction techniques or infiltration systems.

37. Provide the Overbank Flood (Qp) and Extreme Flood (Qf) control criteria or select waiver (37a), if applicable.

Total Overbank Flood Control Criteria (Qp)

Pre-Development

[ ][ ][ ].[ ][ ][ ] **CFS**

Post-development

[ ][ ][ ].[ ][ ][ ] **CFS**

Total Extreme Flood Control Criteria (Qf)

Pre-Development

[ ][ ][ ].[ ][ ][ ] **CFS**

Post-development

[ ][ ][ ].[ ][ ][ ] **CFS**

37a. The need to meet the Qp and Qf criteria has been waived because:

- ● Site discharges directly to tidal waters or a fifth order or larger stream.
- ○ Downstream analysis reveals that the Qp and Qf controls are not required

38. Has a long term Operation and Maintenance Plan for the post-construction stormwater management practice(s) been developed? ● Yes ○ No

If Yes, Identify the entity responsible for the long term Operation and Maintenance

BREAKERS STONY POINT LP

39. Use this space to summarize the specific site limitations and justification for not reducing 100% of WQv required(#28). (See question 32a) This space can also be used for other pertinent project information.

40. Identify other DEC permits, existing and new, that are required for this project/facility.

- ○ Air Pollution Control
- ○ Coastal Erosion
- ○ Hazardous Waste
- ○ Long Island Wells
- ○ Mined Land Reclamation
- ○ Solid Waste
- ○ Navigable Waters Protection / Article 15
- ○ Water Quality Certificate
- ○ Dam Safety
- ○ Water Supply
- ○ Freshwater Wetlands/Article 24
- ○ Tidal Wetlands
- ○ Wild, Scenic and Recreational Rivers
- ○ Stream Bed or Bank Protection / Article 15
- ○ Endangered or Threatened Species(Incidental Take Permit)
- ○ Individual SPDES
- ○ SPDES Multi-Sector GP N Y R
- ○ Other
- ● None

41. Does this project require a US Army Corps of Engineers Wetland Permit? ○ Yes ● No
If Yes, Indicate Size of Impact. .

42. Is this project subject to the requirements of a regulated, traditional land use control MS4? ● Yes ○ No
(If No, skip question 43)

43. Has the "MS4 SWPPP Acceptance" form been signed by the principal executive officer or ranking elected official and submitted along with this NOI? ● Yes ○ No

44. If this NOI is being submitted for the purpose of continuing or transferring coverage under a general permit for stormwater runoff from construction activities, please indicate the former SPDES number assigned. N Y R

Owner/Operator Certification

I have read or been advised of the permit conditions and believe that I understand them. I also understand that, under the terms of the permit, there may be reporting requirements. I hereby certify that this document and the corresponding documents were prepared under my direction or supervision. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further understand that coverage under the general permit will be identified in the acknowledgment that I will receive as a result of submitting this NOI and can be as long as sixty (60) business days as provided for in the general permit. I also understand that, by submitting this NOI, I am acknowledging that the SWPPP has been developed and will be implemented as the first element of construction, and agreeing to comply with all the terms and conditions of the general permit for which this NOI is being submitted.

Print First Name: ELI

MI:

Print Last Name: HERSKOWITZ

Owner/Operator Signature:

Date: / /

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

NYS Department of Environmental Conservation
Division of Water
625 Broadway, 4th Floor
Albany, New York 12233-3505

MS4 Stormwater Pollution Prevention Plan (SWPPP) Acceptance Form

for

Construction Activities Seeking Authorization Under SPDES General Permit

*(NOTE: Attach Completed Form to Notice Of Intent and Submit to Address Above)

I. Project Owner/Operator Information	
1. Owner/Operator Name:	BREAKERS STONY POINT LP
2. Contact Person:	ELI HERSKOWITZ
3. Street Address:	3 EASTVIEW ROAD
4. City/State/Zip:	MONSEY/NY/10952
II. Project Site Information	
5. Project/Site Name:	EAGLE BAY
6. Street Address:	36 HUDSON DRIVE
7. City/State/Zip:	STONY POINT/NY/10980
III. Stormwater Pollution Prevention Plan (SWPPP) Review and Acceptance Information	
8. SWPPP Reviewed by:	JOHN O'ROURKE, P.E.
9. Title/Position:	TOWN ENGINEER
10. Date Final SWPPP Reviewed and Accepted:	
IV. Regulated MS4 Information	
11. Name of MS4:	TOWN OF STONY POINT
12. MS4 SPDES Permit Identification Number: NYR20A	284
13. Contact Person:	JOHN O'ROURKE, P.E.
14. Street Address:	3132 ROUTE 207
15. City/State/Zip:	CAMPBELL HALL, NY 10916
16. Telephone Number:	(845) 294-3700

MS4 SWPPP Acceptance Form - continued

V. Certification Statement - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative

I hereby certify that the final Stormwater Pollution Prevention Plan (SWPPP) for the construction project identified in question 5 has been reviewed and meets the substantive requirements in the SPDES General Permit For Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4s). Note: The MS4, through the acceptance of the SWPPP, assumes no responsibility for the accuracy and adequacy of the design included in the SWPPP. In addition, review and acceptance of the SWPPP by the MS4 does not relieve the owner/operator or their SWPPP preparer of responsibility or liability for errors or omissions in the plan.

Printed Name: JIM MONAGHAN

Title/Position: TOWN SUPERVISOR

Signature:

Date:

VI. Additional Information

(NYS DEC - MS4 SWPPP Acceptance Form - January 2015)

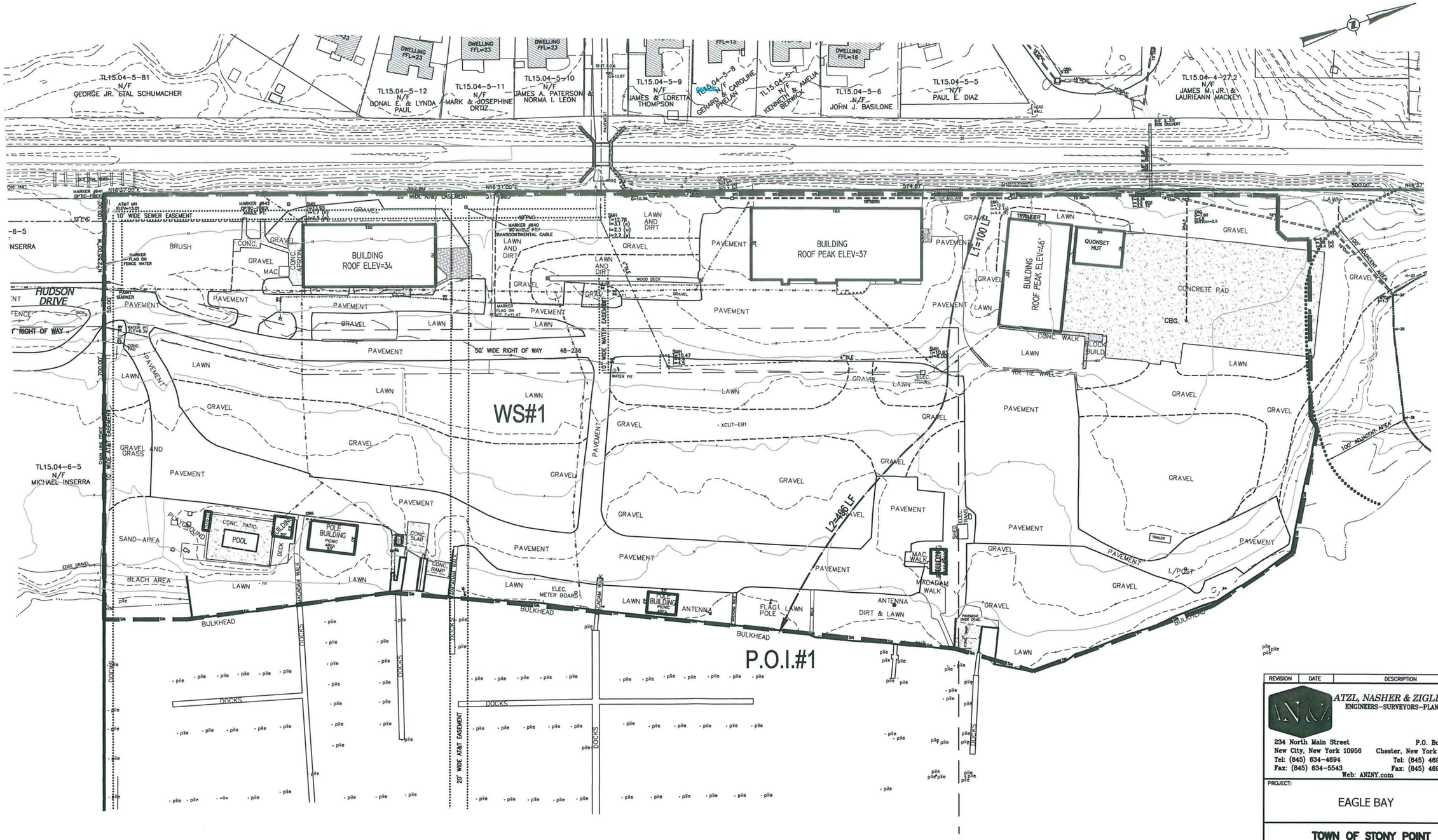
EAGLE BAY

TOWN OF STONY POINT
ROCKLAND COUNTY
NEW YORK

DRAINAGE MAPS

BY

ATZL, NASHER & ZIGLER P.C.
ENGINEERS-SURVEYORS-PLANNERS
234 NORTH MAIN STREET
NEW CITY, NY 10956
TEL: (845) 634-4694
FAX: (845) 634-5543
E-MAIL: rnasher@anzny.com



REVISION	DATE	DESCRIPTION

ATZL, NASHER & ZIGLER P.C.
ENGINEERS–SURVEYORS–PLANNERS

234 North Main Street
New City, New York 10956
Tel: (845) 634-4694
Fax: (845) 634-5543

P.O. Box 636
Chester, New York 10918
Tel: (845) 469-1015
Fax: (845) 469-1016

Web: ANZNY.com

PROJECT:

EAGLE BAY

TOWN OF STONY POINT
ROCKLAND COUNTY, NEW YORK

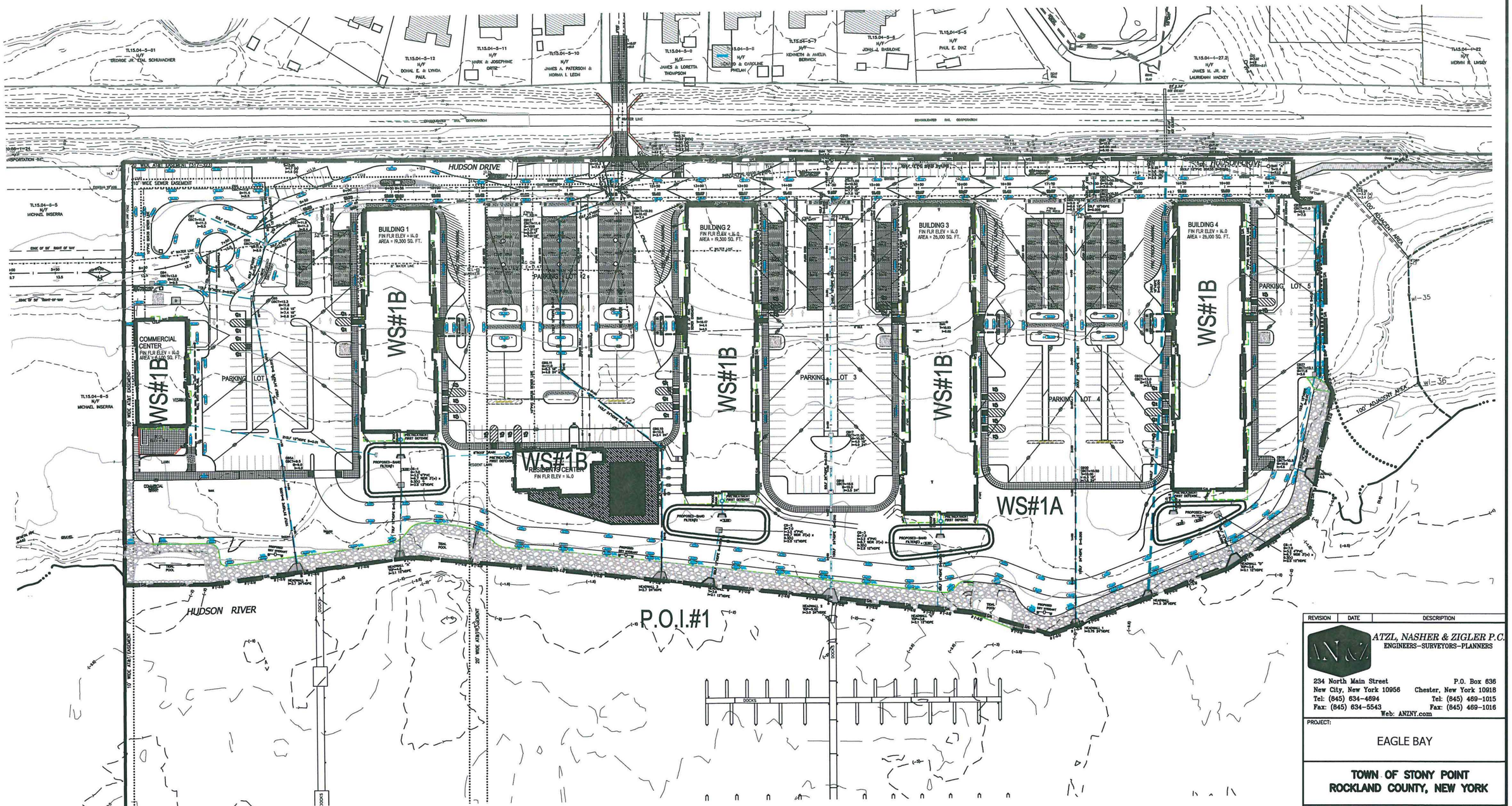
TITLE:

DRAINAGE MAP
EXISTING CONDITION

DRAWN BY: VC	CHECKED BY: RN
DATE: AUGUST 01, 2019	SCALE: 1 IN. = 50 FT.
PROJECT NO: 1407	DRAWING NO: E-1

RYAN A. NASHER, P.E.
N.Y.S. P.E. LIC. NO. 89066

JOHN R. ATZL
N.Y.S. P.E. LIC. NO. 50228



REVISION	DATE	DESCRIPTION

ATZL, NASHER & ZIGLER P.C.
ENGINEERS–SURVEYORS–PLANNERS

234 North Main Street
New City, New York 10956
Tel: (845) 634-4694
Fax: (845) 634-5543

P.O. Box 636
Chester, New York 10918
Tel: (845) 469-1015
Fax: (845) 469-1016

Web: ANZNY.com

PROJECT:

EAGLE BAY

TOWN OF STONY POINT
ROCKLAND COUNTY, NEW YORK

TITLE:

DRAINAGE MAP
DEVELOPED CONDITION

DRAWN BY: VC	CHECKED BY: RN
DATE: AUGUST 01, 2019	SCALE: 1 IN. = 50 FT.
PROJECT NO: 1407	DRAWING NO: D-1

STATE OF NEW YORK · RYAN A. NASHER · LICENSED PROFESSIONAL ENGINEER

RYAN A. NASHER, P.E.
N.Y.S. P.E. LIC. NO. 89066

STATE OF NEW YORK · JOHN R. ATZL · LICENSED PROFESSIONAL ENGINEER

JOHN R. ATZL
N.Y.S. P.E.S. LIC. NO. 50228

Appendix C: Ecology

Appendix C.I: Rare, Threatened and Endangered Plant Species Report

November 8, 2017

NYS Department of Environmental Conservation
Division of Fish, Wildlife & Marine Resources
New York Natural Heritage Program
625 Broadway, 5th Floor
Albany, NY 12233

Re: Rare, Threatened and Endangered Plant Survey, Breakers on the Hudson, Stony Point, NY.

Dear NHP Staff:

The New York Natural Heritage Program (NHP) issued their review (see Attachment 3) of available data for the Breakers at Stony Point Project (Project). This project intends to redesign and upgrade the existing marina and associated grounds with improved parking, access and boat slips. NHP did not identify any current records of rare, threatened, or endangered (RTE) species present in the vicinity of the project. One historical record, for the wild potato vine (*Ipomoea pandurata*) was identified as having been found adjacent to a quarry approximately one mile from the Project site, last observed in 1968.

This species is found in dry, open uplands such as clearings, although it can also be found in dry woodlands. Normandeau botanists, on behalf of ATZL, Nasher and Zigler, P.C., evaluated the project area using available aerial imagery and determined that there is sufficient evidence to suggest that appropriate habitat for this species may exist within the project area. The majority of the site is cleared and maintained for the use of the marina and its patrons, however a fence-line parallel to the train tracks at the rear of the property, as well as the undeveloped portion to the north may provide habitat for the species by being free of routine maintenance and vegetation clearing activities.

A field visit was conducted on Tuesday, October 2nd to survey the site for additional suitable habitat, as well as conduct methodical surveys for the wild potato vine and any other RTE plant species that may be present but previously unknown. The survey was conducted late in the growing season, although conditions did not indicate that any killing frost had been experienced, enabling positive identification of most species on site.

Site Description

The terrestrial portion of the site is comprised of a series of gravel parking areas and maintenance facilities associated with an existing marina on the west bank of the Hudson River in Stony Point, NY (see Attachment 1). The survey area is bounded on the west by an existing railroad, the north by a wetland connected to the river, and the south by another series of large gravel lots that currently are used for boat storage. The area immediately adjacent to the river is maintained as a park-like area

with a manicured lawn between a series of boat launches and lifts, as well as a small beach area. The site is greatly disturbed through development and continued use. The primary vegetation communities consist of disturbance-tolerant, non-native species such as yellow foxtail (*Setaria pumila*), common dandelion (*Taraxacum officinale*), clovers (*Trifolium* spp.), wild carrot (*Daucus carota*), white sweet-clover (*Melilotus albus*), and grass species such as hairy crabgrass (*Digitaria sanguinalis*), Kentucky blue grass (*Poa pratensis*), and orchard grass (*Dactylis glomerata*). The only areas of the project site that remain free of routine vegetation clearing are those that were previously identified on aerial imagery as the fence-line along the railroad tracks and the wetland area to the north.

Survey Results

No RTE plant species were located during the surveys. Little suitable area exists on site for rare plants due to the high amount of disturbance associated with the site. The lesser disturbed areas, such as the fence-line and wetland area to the north, are heavily infested with invasive plant species. The fence-line is covered by porcelain-berry (*Ampelopsis brevipedunculata*), Asian bittersweet (*Celastrus orbiculatus*), and Japanese knotweed (*Fallopia japonica*), with very little ecological space for any native species. The overstory consists of common hackberry (*Celtis occidentalis*), tree of heaven (*Ailanthus altissima*), and black gum (*Nyssa sylvatica*). The closest potential plant relative to wild potato vine was found to be field bindweed (*Convolvulus arvensis*), growing at the north end of the fence in the project area. This species was easily differentiated from wild potato vine in the field by the lack of a cordate leaf base. The portion of the wetland along the north end of the Project was entirely colonized by invasive common reed (*Phragmites australis*), and likewise does not allow for suitable habitat to support wild potato vine or most other rare plants.

Please find a site map with numbered photo locations as Attachment 1, a corresponding photolog as Attachment 2, and the NHP Review enclosed as Attachement 3. If you have any questions or concerns regarding the information contained within this brief report, please contact me at 207-518-6769 or by email at elema@normandeau.com.

Best regards,

Erik Lema, Senior Scientist/Botanist

Normandeau Associates, Inc.

Attachment 1

Breakers on the Hudson, Rare Plant Survey

Stony Point, NY

0 75 150 300 450 600 Feet

Photopoint Locations

Survey Area (approx.)

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

Attachment 2

Breakers on the Hudson, Stony Point, NY

Photo #1

Photopoint 1, view south over lawn/park area adjacent to slips.

Photo #2

Photopoint 2, view north across gravel lots.

Photo #3

Photopoint 3, view north along fence-line.

Photo#4

Photopoint 4 – view northwest of fence line. Railroad embankment in background.

Photo #5

Photopoint 5 – view west along small fence/divider.

Photo #6

Photopoint 6 – view south-southeast across maintained lot.

Photo #7

Photopoint 7 – view north along fence-line, behind maintenance facilities.

Photo #8

Photopoint 8 – view north along fence-line toward wetland area north of the Project.

Photo #9

Photopoint 9 – view northwest into wetland area.

Photo #10

Photopoint 10 – view south along access roads into interior of project area.

Photo #11

Photopoint 11 – view northwest from corner of Project toward undeveloped/wetland area.

Photo #12

Photopoint 12 – view south across maintained lawn/park area.

Photo #13

Photo depicting field bindweed (*Convolvulus arvensis*) amidst porcelain-berry (*Ampelopsis brevipedunculata*).

Appendix C.II: Haverstraw Bay Habitat Impairment Test

COASTAL FISH AND WILDLIFE RATING FORM

Name of area: **Haverstraw Bay**
Designated: **November 15, 1987**
Revised: **August 15, 2012**
County: **Rockland; Westchester**
Town(s): **Clarkstown, Haverstraw, Stony Point, Cortland**
7.5' Quadrangles: **Haverstraw, NY; NOAA Chart No. 12343**

Assessment Criteria	**Score**
Ecosystem Rarity (ER) -- the uniqueness of the plant and animal community in the area and the physical, structural and chemical features supporting this community.	
ER Assessment - An extensive area of shallow estuarine habitat, rare in the lower Hudson River and in New York State	**64**
Species Vulnerability (SV) – the degree of vulnerability throughout its range in New York State of a species residing in the ecosystem or utilizing the ecosystem for its survival.	
SV Assessment – Shortnose sturgeon (E), bald eagle (T), common loon (SC), Atlantic sturgeon (E) Additive Division: 36 + 36/2 + 25/4 + 16/8= 62.25	**62.25**
Human Use (HU) -- the conduct of significant, demonstrable commercial, recreational, or educational wildlife-related human use, either consumptive or non-consumptive, in the area or directly dependent upon the area.	
HU Assessment -- The area contributes to recreational and commercial fisheries throughout the northeastern U.S.	**36**
Population Level (PL) – the concentration of a species in the area during its normal, recurring period of occurrence, regardless of the length of that period of occurrence.	
PL Assessment -- A major spawning, nursery, and wintering area for various estuarine fish species; population levels unusual in the northeastern U.S.	**25**
Replaceability (R) – ability to replace the area, either on or off site, with an equivalent replacement for the same fish and wildlife and uses of those same fish and wildlife, for the same users of those fish and wildlife.	
R Assessment – Irreplaceable	**1.2**
Habitat Index (ER+SV+HU+PL)= 187.25	**Significance (HI x R)= 224.7**

LOCATION AND DESCRIPTION OF HABITAT

The Haverstraw Bay Significant Coastal Fish and Wildlife Habitat area extends approximately six miles on the Hudson River, from Stony Point to Croton Point, in the Towns of Stony Point, Haverstraw, and Clarkstown, in Rockland County, and the Town of Cortlandt, in Westchester County (7.5' Quadrangle: Haverstraw, N.Y.; NOAA Chart No. 12343).

The fish and wildlife habitat, approximately 8,700 acres, encompasses the entire river over this approximate six-mile reach, which is the widest section of the Hudson River estuary. Haverstraw Bay has extensive shallow areas (less than 15 feet deep at mean low water) that deepen to a navigation channel (which is dredged to maintain a depth of about 35 feet) in the western half of the area. During much of the year, this area is the place where freshwater from the upper river mixes with salt water from the Atlantic Ocean to produce a predominantly brackish water habitat with salinities varying from 0-10 ppt. Several submerged aquatic vegetation beds, dominated by water celery (*Vallisneria americana*), are found here.

Habitat disturbances, such as dredging, shoreline filling and bulkheading, waste disposal, and pollution from upland and in-river sources, have all been significant at some time during the recent history of this area. The land area surrounding Haverstraw Bay supports a variety of land uses, including industrial, commercial, recreational and residential developments, although much undeveloped forestland also remains.

FISH AND WILDLIFE VALUES

The regular occurrence of brackish water over extensive areas of shallow bottom in Haverstraw Bay creates highly favorable conditions for biological productivity within the estuary. The habitat contains diverse communities of submergent aquatic vegetation, phytoplankton and zooplankton, aquatic invertebrates and many fish species.

Although the location of the salt front varies annually (and seasonally), Haverstraw Bay regularly comprises a substantial part of the nursery area for striped bass (*Morone saxatilis*), American shad (*Alosa sapidissima*), white perch (*Morone americana*), Atlantic tomcod (*Microgadus tomcod*), and Atlantic sturgeon (*Acipenser oxyrhynchus*) (E). Other anadromous species, such as blueback herring (*Alosa aestivalis*) and alewife (*Alosa pseudoharengus*), spawn in upstream freshwater areas, but move south and concentrate in this area before leaving the river in the fall.

The submerged aquatic vegetation provides food for fish, invertebrates and waterfowl as well as refuge for fish and invertebrates. Haverstraw Bay is a major nursery and feeding area for certain marine species, most notably bay anchovy (*Anchoa mitchilli*), Atlantic menhaden (*Brevoortia tyrannus*) and Atlantic blue crab (*Callinectes sapidus*). Depending on location of the salt front, a majority of the spawning and wintering populations of Atlantic sturgeon (*Acipenser oxyrhynchus*) (C-Fed) in the Hudson may reside in Haverstraw Bay. Shortnose sturgeon (*Acipenser brevirostrum*) (E) usually winter in this area as well. Atlantic tomcod (*Microgadus tomcod*), bluefish (*Pomatomus saltatrix*), fourspine stickleback (*Apeltes quadracus*), Hogchoker (*Trinectes maculatus*), killifish(*Fundulus spp.*), rainbow smelt (*Osmerus mordax*)(R), silversides (*Menidia menidia*), summer flounder (*Paralichthys dentatus*), threespine stickleback (*Gasterosteus aculeatus*), white perch (*Morone americana*), common carp (*Cyprinus carpio*), American eel (*Anguilla rostrata*) and white catfish (*Ameiurus catus*) are also found in this area.

Significant numbers of waterfowl may occur in Haverstraw Bay during spring (March-April) and fall (September-November) migrations.

Bald eagles (*Haliaeetus leucocephalus*) (T) overwinter in northern Haverstraw Bay and along Croton Point, the latter being a place where common loons (*Gavia immer*) (SC) also overwinter. Harbor seals (*Phoca vitulina*) use the surface waters of this habitat during winter months.

Haverstraw Bay is a critical habitat for most estuarine-dependent fisheries originating from the Hudson River. This area contributes directly to the production of in-river and ocean populations of food, game, and forage fish species. Consequently, commercial and recreational fisheries throughout the Atlantic Coast depend on, or benefit from, these biological inputs from the Hudson River estuary.

IMPACT ASSESSMENT

Any activity that would degrade water quality, increase turbidity or sedimentation, alter flows, water salinities or temperature in Haverstraw Bay would result in significant impairment of the habitat. Discharges of sewage, effluents or stormwater runoff containing sediments or chemical pollutants may result in significant adverse impacts on the habitat area. Similarly, spills of oil or other hazardous substances, and leachate of contaminated groundwater, constitute a potential threat to fish and wildlife in the bay. All species may be affected by water pollution, such as chemical contamination (including food chain effects resulting from bioaccumulation), oil spills, excessive turbidity or sediment loading, nonpoint source runoff, and waste disposal (including vessel wastes).

Any physical modification of the habitat or adjacent wetlands, through dredging, filling or bulkheading, would result in a direct loss of valuable habitat area. Construction of shoreline structures, such as docks, piers, bulkheads, or revetments, in areas not previously altered by human activity would result in the loss of productive areas which support the fish and wildlife resources of Haverstraw Bay. Construction of structures in areas previously altered may result in a direct loss of valuable habitat. Habitat disturbances would be most detrimental during bird nesting, and fish spawning and nursery periods, which generally extend from April through August for most warm water and anadromous species, as well as bald eagle overwintering periods (December through March)..

Existing vegetated areas bordering Haverstraw Bay should be maintained and where possible restored to provide bank cover, soil stabilization, maintain or improve water quality and provide buffer areas from development. Of particular concern are the potential impacts related to development in adjacent forested areas.

Thermal discharges, depending on time of year, could have adverse effects on use of the area by migratory and resident species. Activities that result in the presence of significant electric, magnetic, or electromagnetic fields may affect benthic communities, migratory fish movement, and fish egg and larval development. Entrainment and impingement causes significant mortality to all life stages of fish, including endangered species. Activities that would enhance migratory, spawning, or nursery fish habitat, particularly where an area is essential to a species' life cycle or helps to restore an historic species population would be beneficial.

Unrestricted use of motorized vessels, including personal watercraft, in shallow waters can have adverse effects on the benthic community, and on fish and wildlife populations through re-suspension of sediments and through shoreline erosion which may reduce water clarity and increase sedimentation. Use of motorized vessels should be controlled (e.g., no wake zone, speed zones, zones of exclusion) in and adjacent to shallow waters and adjacent wetlands. Docks, piers, catwalks, or other structures may be detrimental to submerged aquatic vegetation beds through direct or indirect effects from shading, mooring chain and propeller scarring, and other associated human uses. In particular, the submerged aquatic vegetation beds are especially vulnerable to impacts that decrease light penetration into the water.

Where opportunities exist, appropriate restoration of intertidal and subtidal shallow habitats should be undertaken using the best available science and proper monitoring protocols. Restoration and enhancement efforts should be monitored, and the associated habitat effects should be reported and evaluated.

HABITAT IMPAIRMENT TEST

A **habitat impairment test** must be met for any activity that is subject to consistency review under Federal and State laws, or under applicable local laws contained in an approved local waterfront revitalization program. If the proposed action is subject to consistency review, then the habitat protection policy applies, whether the proposed action is to occur within or outside the designated area.

The specific **habitat impairment test** that must be met is as follows.

> In order to protect and preserve a significant habitat, land and water uses or development shall not be undertaken if such actions would:
> 1. destroy the habitat; or,
> 2. significantly impair the viability of a habitat.

Habitat destruction is defined as the loss of fish or wildlife use through direct physical alteration, disturbance, or pollution of a designated area or through the indirect effects of these actions on a designated area. Habitat destruction may be indicated by changes in vegetation, substrate, or hydrology, or increases in runoff, erosion, sedimentation, or pollutants.

Significant impairment is defined as reduction in vital resources (e.g., food, shelter, living space) or change in environmental conditions (e.g., temperature, substrate and salinity) beyond the tolerance range of an organism. Indicators of a significantly impaired habitat focus on ecological alterations and may include but are not limited to reduced carrying capacity, changes in community structure (food chain relationships, species diversity), reduced productivity and/or increased incidence of disease and mortality.

The *tolerance range* of an organism is not defined as the physiological range of conditions beyond which a species will not survive at all, but as the ecological range of conditions that supports the species population or has the potential to support a restored population, where practical. Either the loss of individuals through an increase in emigration or an increase in death rate indicates that the tolerance range of an organism has been exceeded. An abrupt increase in death rate may occur as an environmental factor falls beyond a tolerance limit (a range has both upper and lower limits). Many environmental factors, however, do not have a sharply defined tolerance limit, but produce increasing emigration or death rates with increasing departure from conditions that are optimal for the species.

The range of parameters which should be considered in applying the habitat impairment test includes but is not limited to the following:

1. physical parameters such as living space, circulation, flushing rates, tidal amplitude, turbidity, water temperature, depth (including loss of littoral zone), morphology, substrate type, vegetation, structure, erosion and sedimentation rates;
2. biological parameters such as community structure, food chain relationships, species diversity, predator/prey relationships, population size, mortality rates, reproductive rates, meristic features, behavioral patterns and migratory patterns; and,
3. chemical parameters such as dissolved oxygen, carbon dioxide, acidity, dissolved solids, nutrients, organics, salinity, and pollutants (heavy metals, toxics and hazardous materials).

KNOWLEDGABLE CONTACTS

Natural Resources Bureau
NYS Department of State
99 Washington Ave, Suite 1010
Albany, NY 12231
Phone: (518) 474.6000

Hudson River National Estuarine Research Reserve
Norrie Point Environmental Center
PO Box 315
Staatsburg, NY 12580
Phone: (845) 889.4745

Hudson River Fisheries Unit
NYS Department of Environmental Conservation
21 South Putt Corners Road
New Paltz, NY 12561
Phone: (845) 256.3071

The Hudson River Estuary Program
NYSDEC Region 3
21 S Putt Corners Rd
New Paltz, NY 12561
Phone: (845) 256.3016

New York Natural Heritage Program
625 Broadway, 5th Floor
Albany, NY 12233-4757
Phone: (518) 402.8935

Significant Coastal Fish and Wildlife Habitats

Haverstraw Bay (In Part) part 1 of 2
Hudson Highlands (In Part)

NEW YORK STATE DEPARTMENT OF STATE

Significant Coastal Fish and Wildlife Habitats

Haverstraw Bay)In Part) part 2 of 2
Croton River and Bay

NEW YORK STATE DEPARTMENT OF STATE

0 2000 feet

N

Appendix C.III: New York Natural Heritage Program (NHP) Report and Acceptance Correspondence

Adele Fiorillo

From: Adele Fiorillo
Sent: Monday, December 04, 2017 11:53 AM
To: Adele Fiorillo
Subject: FW: RTE plant survey report - NHP file 779 (2016)

Adele Fiorillo
NORMANDEAU ASSOCIATES, INC.
603-319-5303 (direct) 603-494-8931 (cell)

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From: Erik Lema
Sent: Monday, December 04, 2017 11:15 AM
To: Adele Fiorillo <afiorillo@normandeau.com>
Subject: FW: RTE plant survey report - NHP file 779 (2016)

FYI

ERIK LEMA
NORMANDEAU ASSOCIATES, INC.
207-518-6769 (direct) 716-912-1869 (cell)

From: Young, Steve (DEC) [mailto:steve.young@dec.ny.gov]
Sent: Monday, November 27, 2017 1:31 PM
To: Erik Lema
Subject: RE: RTE plant survey report - NHP file 779 (2016)

Hi Erik,
I agree that no habitat exists for this plant at that location.
Steve

Steve Young
Chief Botanist
NY Natural Heritage Program
625 Broadway, Fifth Floor
Albany, NY 12233-4757
518-402-8951
www.nynhp.org

From: Erik Lema [mailto:elema@normandeau.com]
Sent: Monday, November 27, 2017 11:16 AM

To: Young, Steve (DEC) <steve.young@dec.ny.gov>
Subject: RTE plant survey report - NHP file 779 (2016)

ATTENTION: This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.

Mr. Young,

I recently spoke with Mr. Nick Conrad regarding the NHP review of the proposed Breakers project in Stony Point. In this report (included as Attachment 3 in our survey report), NHP identified a historical record of *Ipomoea pandurata* in the vicinity. I performed a field survey of the site in October and did not locate any suitable habitat for the species. I would be interested in any comments that you may have regarding the survey. This project will be reviewed by both NY DEC and USACE, so any information you can provide regarding my conclusion that little suitable habitat exists on site would be appreciated and can be included in the project documentation. Please let me know if you have any questions whatsoever, thanks!

Erik

ERIK LEMA, NHCWS
Senior Wetland Scientist/Botanist
NORMANDEAU ASSOCIATES, INC.
550 Forest Ave, Suite 201, Portland ME 04101
207-518-6769 (direct) 716-912-1869 (cell)
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Please consider the environment before printing this e-mail.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Fish and Wildlife, New York Natural Heritage Program
625 Broadway, Fifth Floor, Albany, NY 12233-4757
P: (518) 402-8935 | F: (518) 402-8925
www.dec.ny.gov

November 18, 2019

Ramya Ramanathan
Atzl, Nasher & Zigler P.C.
232 N Main Street
New City, NY 10956

Re: Eagle Bay Mixed Use Development
County: Rockland Town/City: Stony Point

Dear Ramya Ramanathan:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above project.

Enclosed is a report of rare or state-listed animals and plants, and significant natural communities that our database indicates occur in the vicinity of the project site.

For most sites, comprehensive field surveys have not been conducted; the enclosed report only includes records from our database. We cannot provide a definitive statement as to the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

Our database is continually growing as records are added and updated. If this proposed project is still under development one year from now, we recommend that you contact us again so that we may update this response with the most current information.

The presence of the plants and animals identified in the enclosed report may result in this project requiring additional review or permit conditions. For further guidance, and for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the NYS DEC Region 3 Office, Division of Environmental Permits at dep.r3@dec.ny.gov, (845) 256-3054.

Sincerely,

Heidi Krahling
Environmental Review Specialist
New York Natural Heritage Program

1268

The following state-listed animals have been documented at or in the vicinity of the project site.

The following list includes animals that are listed by NYS as Endangered, Threatened, or Special Concern; and/or that are federally listed or are candidates for federal listing.

For information about any permit considerations for the project, please contact the NYSDEC Region 3 Office, Department of Environmental Permits, at dep.r3@dec.ny.gov, (845) 256-3054.

The following species has been documented at the project site, and nesting within 0.2 mile.

COMMON NAME	SCIENTIFIC NAME	NY STATE LISTING	FEDERAL LISTING	
Birds				
Bald Eagle *Breeding and Nonbreeding*	*Haliaeetus leucocephalus*	Threatened		965

The following species have been documented in the Hudson River and so could occur near the project site.

COMMON NAME	SCIENTIFIC NAME	NY STATE LISTING	FEDERAL LISTING	
Fish				
Shortnose Sturgeon	*Acipenser brevirostrum*	Endangered	Endangered	11619
Atlantic Sturgeon	*Acipenser oxyrinchus*	No Open Season	Endangered	11464

Appendix C.IV: NYSDEC Correspondence

#1407

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Region 3 Main Office
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February 19, 2016

Tom Gubitosa, Chairman
Town of Stony Point
74 East Main Street
Stony Point, NY 10980

Re: The Breakers, 22, 31, & 36 Hudson Drive
CH 6224
Town of Stony Point, Rockland County

Chairman Gubitosa:

The NYS Department of Environmental Conservation (DEC) has reviewed the State Environmental Quality Review (SEQR) Lead Agency Request and the SEQR Draft Scoping Document. The reviewed documents include the "The Breakers" plan sheets 1-4 dated September 30, 2015; a SEQR Environmental Assessment Form (EAF) was not included with the Lead Agency request. The proposal consists of 205 residential housing units, commercial space, and a large marina providing 230 boat slips and a fishing pier with kiosk.

Please note that the Draft Scope incorrectly lists DEC as an interested agency; it is an involved agency. As currently proposed, this project will at minimum require a Docks, moorings, platform permit and State Pollutant Discharge Elimination System (SPDES) permit for stormwater from construction activities; freshwater wetland, excavation and fill in navigable waters, and incidental taking of endangered/threatened species permits may also be required. DEC jurisdiction over this project, with reference to the Environmental Conservation Law (ECL), is as follows and includes DEC comments on the proposed content of the Draft Environmental Impact Statement (EIS):

Protection of Waters – Article 15, Title 5 of the ECL
Excavation and Fill in Navigable Waters - The Hudson River is a navigable waterbody and any work waterward of Mean High Water requires a permit. Any modification, replacement, or expansion of the existing bulkheads or breakwaters may require an excavation and fill permit. Depending on the size and number proposed, pilings for the proposed docking facility may require an excavation and fill permit.

No underwater bathymetry has been provided. This should be required in the Draft EIS to demonstrate whether any dredging will be needed for the proposed docking facility. Additional discussion of the intended use of the facility will also be needed to document the boat draft which be necessary for the vessels that will utilize the facility.

Staff recommend that any repair, replacement, or modification to shoreline stabilization utilize less hardened structures. For more information and examples, the applicant is directed to the DEC website pages on Shoreline Stabilization http://www.dec.ny.gov/permits/50534.html and Shoreline Stabilization Techniques http://www.dec.ny.gov/permits/67096.html, as well as the Hudson River National Estuarine Research Reserve, Hudson River Sustainable Shorelines Project pages at http://www.hrnerr.org/hudson-river-sustainable-shorelines/. The Sustainable Shoreline Project includes links for various demonstration projects along the Hudson River.

Docks, moorings and platforms - The plans indicate that there is an existing water grant associated with the property. If a license is not required from Office of General Services (OGS), any work on the dock will not exempt from Protection of Waters Docks & Moorings regulation pursuant to §608.4(c)(1). Any modification or expansion to structures over waters of the state requires a permit. If any portion of the proposed docks is over state-owned lands underwater, then a license from OGS will be required in addition to the DEC permit.

Although this is a historic marina, it appears that the proposed docking facility is far greater in size than either the current marina or even the larger, historic marina. The proposal appears to include a number of non-docking structures over the water, including extensive structures along the shore, completely covering the near-shore area. A central pier structure is proposed at a size approximately 30-feet in width and 350-feet in length[1], which is far in excess of what has typically been permitted. It also appears to have another structure proposed on top of it.

The use of structures over navigable waters of the State for non-water-dependent uses and extensive shading of near-shore areas generally does not meet Protection of Waters permit issuance standards. Justification of the size, location, number, and use of structures over water will be required for DEC permits and should be included in the Draft EIS.

Water Quality Certification - In addition to the Excavation/Fill Permit, if any proposed work requires a permit from the Army Corps of Engineers pursuant to Section 404 of the Clean Water Act, then a Section 401 Water Quality Certification will also be required. Issuance of these certifications in NYS has been delegated to DEC.

Submerged Aquatic Vegetation (SAV)
There are extensive SAV beds mapped in the area of the proposed docking facility. Although not directly regulated, SAV beds provide important habitat for a variety of aquatic species, including the endangered shortnose sturgeon. Impact to these beds will be considered as part of any Protection of Waters permit review. Avoidance and minimization of impacts will be a requirement of meeting the Protection of Waters permit issuance standard pursuant to §608.8(c) – "proposal will not cause unreasonable,

[1] Measures are approximate as the plans provided were not at the state scale of 1":50', but approximately 1":112.

uncontrolled or unnecessary damage to the natural resources of the State". DEC staff request that specific consideration of SAV bed impacts be included in the Draft EIS.

Freshwater Wetlands – Article 24 of the ECL
As indicated on the plans, this property includes portions of DEC-regulated freshwater wetland HS-2, Class I. Any disturbance to the wetland or 100-foot adjacent area will require a permit. Although wetland and adjacent area boundaries are shown on the plans, the boundary has not been validated by DEC staff. DEC requests that a validated boundary be required for the Draft EIS.

Endangered & Threatened Species - Article 11, Title 5 of the ECL
Shortnose sturgeon (Acipenser brevirostrum)
The Hudson River is habitat for the state-listed endangered species shortnose sturgeon. In-water work has the potential to impact this species and prohibition timeframes on work may be required to avoid a taking of a protected species pursuant to 6 NYCRR Part 182.

- Impact driving of piles is a danger to sturgeon, particularly the young. If there is a need to install piles, the preferred method for installation is vibratory. If impact driving is require, then the project may be subject to a limited work window of August 15th to October 30th to avoid a taking of sturgeon.
- Any proposed dredging may also be subject to a restrictive work window to avoid impact to sturgeon.

Bald eagle (Haliaeetus leucocephalus)
There are known bald eagle nests in the vicinity of the project. Currently, two nests are known within ~ 0.25 mile of the site, but a new nest could be established in closer proximity this season or in future seasons. Potential impacts must be assessed in accordance with the National Bald Eagle Management guidelines; available online at https://www.fws.gov/southdakotafieldoffice/NationalBaldEagleManagementGuidelines.pdf. If impacts to bald eagles cannot be avoided, a taking permit may be required.

There are no other nearby records of state-listed species. The absence of data does not necessarily mean that rare or state-listed species, natural communities or other significant habitats do not exist on or adjacent to the proposed site. Rather, our files currently do not contain information which indicates their presence. For most sites, comprehensive field surveys have not been conducted. We cannot provide a definitive statement on the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

State Pollutant Discharge Elimination System (SPDES) - Article 17, Title 7, 8 of the ECL, stormwater
For construction disturbing more than one acre, stormwater discharges require a State Pollutant Discharge Elimination System (SPDES). It appears that this project will require a permit and may be eligible for coverage under the SPDES General Permit for Stormwater Discharges from Construction Activity (GP-0-15-002).

For information on stormwater and the general permit, see the DEC website at http://www.dec.ny.gov/chemical/8468.html. As this site is within an MS4 area (Municipal Separate Storm Sewer System), the stormwater plan must be reviewed and accepted by the municipality and the MS-4 Acceptance Form must be submitted to the Department.

Other Issues

Solid Waste and Environmental Remediation

This site is categorized in the Soil Conservation Service Soil Survey Geographic Database as "Udorthents, wet substratum" which suggests that this area is historic fill. Excavation and re-location of historic fill is a regulated activity pursuant to 6 NYCRR Part 360, Solid Waste Management. Regulation section 6 NYCRR 360-1.7(b)(9) provides an exemption for the disturbance of old landfills and historic fill, but it is conditioned on DEC review and approval of the waste handling plan. DEC recommends that the potential for historic waste be included in the Soils and Topography section of the Draft EIS.

The previous industrial use of the property suggests there may be site contamination. DEC recommends that the Draft EIS include the history of spills on the site and a description of the environmental conditions of structures to be demolished so that contaminated products such as asbestos or lead paint are appropriately identified.

Invasive Species

Staff recommend that native plants be utilized as much as possible in the vicinity of the river and under no circumstances should any plantings include any invasive species, as identified in 6 NYCRR Part 575, the Prohibited and Regulated Invasive Species Regulations. The regulations, including the lists of species, are available online at http://www.dec.ny.gov/regs/2490.html.

Historic Resources

The New York State Museum and the New York State Office of Parks, Recreation, and Historic Preservation records indicate that the project is located within an area considered to be sensitive with regard to archaeological resources. The action is also adjacent to two sites on the National/State Register of Historic Places, Stony Point Lighthouse and Stony Point Battlefield. Review of potential impacts to these register sites will be required by DEC and should be included in the Draft EIS along with potential archaeological resources.

A determination of impact on cultural and historic resources by New York State Office of Historic Preservation will be a requirement of a complete application for DEC permits pursuant to Uniform Procedures, 6 NYCRR §621.3(a)(8). For more information, the applicant can visit the SHPO website at http://www.nysparks.com/shpo/.

Coastal Resources

This site is within the Coastal Management Zone and review by the NYS State Office of Planning & Development for coastal consistency may be required. In addition, the

Re: The Breakers, 29 & 31 Hudson Drive
CH 6224
Town of Stony Point, Rockland County

proposed docking facility is located in the DOS Significant Coastal Fish & Wildlife Habitat Area, Haverstraw Bay. This should be include the Draft EIS under "Ecology". For more information, the applicant can visit their website at http://www.dos.ny.gov/opd/.

By copy of this letter, the applicant is made aware of these issues. For the freshwater wetland validation and questions on the Hudson River SAV beds and impacts sturgeon, the applicant may contact Heather Gierloff, NYSDEC Bureau of Habitat, at (845) 256-3086. Questions on impact assessment for bald eagle can be directed to Lisa Masi, NYSDEC Bureau of Wildlife, at (845) 256-2257. If the applicant has questions on regulation of historic fill excavation and meeting the Part 360 exemption, they can contact Steve Parisio, NYSDEC Division of Materials Management at (845) 256-3126.

If there are any questions, please feel free to contact me at (845) 256-3014 or by email at rebecca.crist@dec.ny.gov.

Respectfully,

Rebecca S. Crist
Deputy Regional Permit Administrator

Cc: Wayne Corts, Hudson Marina LLC
Dave Zigler PLS, Atzl, Nasher, & Zigler, P.C.

Ecc: Army Corps of Engineers
NYSDOS Office of Planning & Development
NYS Office of General Services, Land Management
Heather Gierloff, NYSDEC Bureau of Habitat
Gregg Kenney, NYSDEC Hudson River Fisheries
Lisa Masi, NYSDEC Bureau of Wildlife
Steve Parisio, NYSDEC Division of Materials Management

Appendix C.V: Submerged Coastal Fish and Wildlife Habitat (SCFWH) Assessment report

NORMANDEAU ASSOCIATES
Environmental Consultants

HAVERSTRAW BAY SIGNIFICANT COASTAL FISH AND WILDLIFE ASSESSMENT FOR THE BREAKERS AT THE STONY POINT MARINA FACILITLY, STONY POINT, NEW YORK

Presented To:
Eliezer Herskowitz
Breakers on the Hudson, LLC
5 Eastview Road
Monsey, NY 10952

Submitted:
February 2018

Submitted By:
Normandeau Associates, Inc.
30 International Drive, Suite 6
Portsmouth, NH 03801
R- 23955.000

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1.0 INTRODUCTION

The Breakers on the Hudson, LLC (The Breakers) with the assistance of Atzl, Nasher, and Zigler P.C is preparing an application to the New York State Department of Environmental Conservation (NYSDEC) and US Army Corps of Engineers (USACOE) requesting in-water work authorization:

- to extend and repair portions of an existing bulkhead,
- revising the docking structure layout which will involve pile removal,
- and replacement, and removal or repair of portions of the existing breakwater

at the Stony Point Marina Facility (SPMF). SPMF is located in the village of Stony Point, New York on the western shore of the Hudson River near River Mile (RM) 39 (River Miles are measured upstream from Battery Park in Manhattan at RM 0).

Based on the location of the proposed activities, an assessment of potential impacts to Haverstraw Bay Significant Coastal Fish and Wildlife Habitat (SCFWH) is required. This assessment includes fisheries species and the benthic macroinvertebrate community potentially impacted by the breakwater installation.

Haverstraw Bay SCFWH consists of 8,700 acres of the river from Croton Point to Stony Point and is comprised of predominately shallow brackish habitat. Its shallow bottom creates highly favorable conditions for diverse communities for many fish species such as the Atlantic and Shortnose Sturgeon and Striped Bass.

2.0 ESTIMATION OF IMPACT AREA

Potential impacts due to the replacement of the wave screen at Stony Point Marina are largely confined to temporary disturbance during construction, with some alteration of habitat due to the improved structure. The new structure and replacement piers will be installed within the existing wave screen footprint, which will limit the extent of habitat loss and mitigate any temporary physical disturbance. Temporary impacts may include turbidity, sedimentation, and increased noise disturbance. These impacts will largely be confined to the immediate area of the marina, with some potential to extend to the surrounding waters, especially for sound-related disturbance.

2.1 DESCRIPTION OF AFFECTED ENVIRONMENT – Haverstraw Bay SCFWH

The designated habitat, Haverstraw Bay, the most northern end of the lower Hudson River Estuary extends approximately 6 miles on the Hudson River from Stony Point to Croton Point. Stony Point Marina Facility is located at River Mile 39 (Figure 2-1). Haverstraw Bay has extensive shallow areas (less than 15 feet deep at mean low water) that deepen to a navigation channel (which is dredged to maintain a depth of about 35 feet) in the western half of the area. Haverstraw Bay is predominantly brackish water habitat where the freshwaters from the upper

river mix with the marine water of the Atlantic, producing salinities varying from 0 to 10 parts per thousand (NYSDOS 1987).

Phytoplankton

In the Hudson River Estuary primary production decreases with increase distance from New York - New Jersey Harbor (USFWS 2008). The majority of primary production in Haverstraw Bay between River Miles 34 and 41, a mesohaline salinity zone, comes from phytoplankton due to its expanses of shallow water (USFW 2008). Freshwater phytoplankton in the Hudson River Estuary is dominated by diatoms (Bacillariophyceae), followed by seasonal blooms of green and blue-green algae (Cholorophyceae and Cyanobacteria), and dinoflagellates (Dinoflagellata) with the distribution of many species dependent on salinity (Kiviat et al. 2006). A 1986-1987 phytoplankton survey in the Hudson River (Marshall 1988) identified 137 species of phytoplankton of which 43 percent were diatoms, Cholorophyceae (27%), and Cyanobacteria (15.3%) (as cited in Smith et al. 1998). Phytoplankton growth in the Hudson River Estuary is generally limited by the well mixed, turbid water as well as grazing (Cole and Caraco 2006). These limitations reduce the potential autochthonous input of organic matter into the Hudson River Estuary which is provided by phytoplankton primary productivity (Caraco and Cole 2006). A major reduction in phytoplankton abundance after the introduction of zebra mussels into the Hudson River has further decreased the role of primary production in this system (Cole and Caraco 2006). A 1993-1994 phytoplankton survey in the Hudson River after the introduction of zebra mussels in 1992 reported at total of 161 species with Bacillariphyceae (78%), Chlorophyceae (15%), Cyanobacteria (3%), Chrysophyceae (2.5%), Pyrrhophyceae (1%) and Cryptophyceae (0.6%) (Smith et al. 1998). The most common species of phytoplankton in the freshwater tidal Hudson River is the pennate diatom *Asterionella formosa* (USFWS 2008). Also abundant in Haverstraw Bay are *Asterionella japonica*, a marine species typically found in the lower estuary and *Coscinodiscus excentricus* which is widely distributed along the entire estuary (USFWS 2008).

Submerged Aquatic Vegetation

Submerged aquatic vegetation (SAV) is a critical component of aquatic ecosystems, both freshwater and marine by providing food for fish, invertebrates and waterfowl as well as shelter for fish and invertebrates (NYSDOS 1987). The distribution of SAV has been shown to be a good indicator of water quality conditions (Kollar et al., 1993). Haverstraw Bay of the Hudson River between River Miles 34 and 41 submerged aquatic vegetation beds are dominated by Water Celery (*Vallisneria americana*) comprising more than 90% of SAV plant biomass. (NYSDOS 1987; Findlay etl al. 2006). Water Chestnut (*Trapa natans*) has increased SAV coverage since its introduction into the Hudson River in the 1930's and often co-occurs with Water Celery. SAV distribution maps reflecting current SAV habitat are unclear on Water Celery-Water Chestnut competition (Tinoco et al. 2017). Additional SAV species are present in Haverstraw Bay: Eurasian Watermilfoil (*Myriophyllum spicatum*), Clasping-Leaf Pondweed (*Potamogeton perfoliatus*), Curly Pondweed (*P. crispus*), and Sago Pondweed (*P. pectinatus*) (Findlay etl al. 2006). Despite shallow water in Haverstraw Bay, SAV beds are not common in this reach of the Hudson River, perhaps because of the generally high turbidity (Findlay etl al. 2006).

Zooplankton

Haverstraw Bay of the Hudson River between River Miles 34 and 41 are shallow water tidal zones where virtually all primary production comes from phytoplankton (USFWS 2008). Zooplankton in the Hudson River Estuary do not play a major role in the overall energy flow but are an important intermediate between phytoplankton and many fish and larger invertebrates (Pace and Lonsdale 2006). Little information exists regarding the specific zooplankton community within this region, and the salinity of this region varies depending on season, tide, and freshwater input (USFWS 2008), indicating that a variety of freshwater and estuarine zooplankton species are likely to be found in this transition zone between marine and freshwater habitats.

Freshwater zooplankton in the Hudson River Estuary consists primarily of flagellates, ciliates, rotifer, copepods, and cladocerans (Pace and Lonsdale 2006). Flagellates here are comprised of several species and presumed to feed on bacteria while the ciliates are mainly composed of choreotrichs (Pace and Lonsdale 2006). Rotifers commonly found in freshwater here are from the genera *Keratella* and *Plyarthra*, common copepods represented are cyclopoids, calanoids, and harpacticoids and the most common cladoceran is *Bosmina freyi* (Pace and Londsdale 2006). In estuarine water, copepods, represented by several species, are the most abundant member of the zooplankton community although flagellates, ciliates, rotifers and cladocerans are also present. In these waters, larger predatory zooplankton, ctenophores and mysids, are also present (Pace and Lonsdale 2006).

The distribution and abundance of zooplankton are dependent on several variables. Temporal scales including tidal, seasonal, and interannual affect the abundance and distribution of zooplankton while on a spatial scale, distribution and abundance can change on a large (river location) to small scale (zooplankton patches) (Pace and Lonsdale 2006).

Time series analysis of abundance, biomass, and reproduction from 1987-1995 reports a 70% reduction in total biomass of zooplankton in the Hudson River following the introduction of zebra mussels in 1992 (Pace et al. 1998).

Macroinvertebrates and Shellfish

Little information on the benthic community between Hudson River Mile 34-41 exists, although this region of the Hudson River likely consists of a mixture of marine and freshwater species (USFWS 2008). The benthic community of the freshwater Hudson River is typically composed of freshwater snails, clams, chironomids and other insects while marine and estuarine communities include marine worms and crustacean (USFWS 2008). The benthic infauna is likely composed of oligochaete worms, chironomids, and possibly polychaete worms. Included in the epifauna would be mysid shrimp, grass shrimp, amphipods, and isopods. Shellfish may include softshell clams or freshwater mussels (Unionidae) burrowed in sandy areas. Blue Crab zoea and megalopae (larval life stages) require relatively high salinities and are abundant in Haverstraw Bay. Flows make this portion of the Hudson River predominantly fresh water in the spring but during drought and summer months the salt front move up allowing species like Blue Crab to move up and utilize this region (USFWS 2008). Zebra mussels now inhabit the Hudson River from Albany to Haverstraw Bay colonizing rocky substrates, piers, and other hard habitats (USFWS 2008). Filtration of the water by zebra mussels has led to the decrease in

phytoplankton and small zooplankton abundance (Smith et al. 1998; Pace et al. 1998; Pace and Lonsdale 2006), and their abundance has led to the reduction of native mussel species through competition for food and space, and the fouling of water intake structures (USFWS 2008).

Finfish

Haverstraw Bay between Hudson River Miles 34-41 regular occurrence of brackish water over extensive areas of shallow bottom creates highly favorable conditions for diverse communities for many fish species (NYSDOT 1987). Haverstraw Bay is considered an important estuarine nursery and provides foraging, nursery, and over wintering habitat for a variety of fish species, including Striped Bass, American Shad, White Perch, Atlantic Tomcod, River Herring, Atlantic Sturgeon, and Shortnose Sturgeon (USFWS 2008). Notable estuarine-dependent finfish which may reside in Haverstraw Bay depending on the location of the salt front include Bluefish, Weakfish, Summer Flounder, Winter Flounder, Common Carp, American Eel, and White Catfish along with forage species such as Bay Anchovy, Atlantic Menhaden, Mummichog, Hogchoker, Killifish spp, Silversides spp, Threespine Stickleback, and Rainbow Smelt (NYSDOT 1987). A near-shore beach seine survey conducted annually from 1980 to 2000 in the mesohaline salinity zone of the Hudson River Estuary between late August and mid-November collected 60 species of fish with the most abundant species being Atlantic Silversides, Striped Bass, White Perch, American Shad, and Blueback Herring (Hurst et al. 2004).

Atlantic Sturgeon

The Atlantic Sturgeon is a long-lived, late maturing, estuarine-dependent, anadromous fish that ranges from Hamilton River, Labrador, to Hutchinson Island, Florida (Collette and Klein-MacPhee 2002; ASSRT 2007). Currently 32 rivers contain Atlantic Sturgeon, with approximately 20 having a spawning population (ASSRT 2007; GARFO 2016a). Atlantic Sturgeon of the New York Bight, Chesapeake Bay, Carolina, and South Atlantic distinct population segments (DPSs) were listed as endangered, and Atlantic Sturgeon of the Gulf of Maine DPS were listed as threatened on February 6, 2012. Critical habitat for these Atlantic Sturgeon DPSs was proposed on June 3, 2016 (81 FR 35701, 81 FR 36078), and designated on August 17, 2017 (82 FR 39160), and, approximately 547 km (340 miles) of aquatic habitat in the following rivers of Connecticut, Massachusetts, New York, New Jersey, Pennsylvania, and Delaware: Connecticut, Housatonic, Hudson, and Delaware. Large-scale movements are such that an individual from any of the five listed DPSs may occur in any of the identified areas throughout the species' range (GARFO 2016a). The current best available information on Atlantic Sturgeon presence within coastal rivers, estuaries, and bays of the Greater Atlantic Region suggests that the Hudson River supports habitat for all life stages up to the Troy Dam (approximately River Mile 148) with overwintering and rearing of juveniles in Haverstraw Bay (GARFO 2016a). Foraging is expected to occur from spring through fall wherever suitable forage—benthic invertebrates and fish—is present in areas in Haverstraw Bay and where appropriate habitat conditions are present—tidally influenced flats and mud, sand and mixed cobble substrates (ASSRT 2007; GARFO 2016a). From 1997 to 2017 Normandeau Associates, Inc (Normandeau) captured 105 Atlantic Sturgeon under permit NMFS 20651 in Haverstraw Bay River Miles 34-41. Thirty-eight of these fish were early juveniles < 500 mm fork length [FL], 64 fish were sub-adults > 500 mm to < 1000 mm [FL] with 2 sub-adults recorded as recaptured. Three Atlantic Sturgeon were collected during an ichthyoplankton survey with no length data recorded and presumed to be larvae.

Shortnose Sturgeon

The Shortnose Sturgeon is a demersal, amphidromous species that inhabits most large coastal rivers along the Atlantic coast from Minas Basin, Nova Scotia, to the St. Johns River, Florida (Gruchy and Parker 1980; Collette and Klein-MacPhee 2002; SSSRT 2010; GARFO 2016b). Nineteen distinct stocks of Shortnose Sturgeon are recognized, ranging in size from less than about 100 adults in the Merrimack River, Massachusetts, to greater than about 61,000 adults in the Hudson River, New York (NMFS 1998; Woodland and Secor 2007). NMFS has not recognized DPSs for this species. Shortnose Sturgeon was officially listed as a federally endangered species on March 11, 1967 (32 FR 4001). Critical habitat has not been designated for the Shortnose Sturgeon. The current best available information on Shortnose Sturgeon presence within coastal rivers, estuaries, and bays of the Greater Atlantic Region suggests that the Hudson River supports habitat for all life stages up to the Troy Dam (approximately River Mile 148) with overwintering of juveniles, sub-adults and adults in Haverstraw Bay (GARFO 2016b). Foraging is expected to occur from spring through fall wherever suitable forage—benthic invertebrates and fish—is present in areas in Haverstraw Bay and where appropriate habitat conditions are present—tidally influenced flats and mud, sand and mixed cobble substrates (ASSRT 2007; GARFO 2016b). From 1997 to 2017 Normandeau captured 80 Shortnose Sturgeon under permit NMFS 20651 in Haverstraw Bay River Miles 34-41. Sixty-nine of these fish were adults > 600 mm [FL] and 10 fish were sub-adults > 450 mm to < 600 mm [FL] with no fish recorded as recaptured. One Shortnose Sturgeon was captured and released with no length data recorded.

Figure 2-1 **Map showing the location of the Project Site in relation to the Haverstraw Bay SCFWH northern boundary (green line). Adapted from NY DOS habitat impairment test document.**

3.0 HABITAT IMPAIRMENT TEST AND SUMMARY OF IMPACTS

The installation of a solid wave screen and floating dock to replace the deteriorating structures at Stony Point Breakers Marina (the Site) in Stony Point, NY (RM 39) has the potential to slightly affect the Haverstraw Bay SCFWH through habitat alteration and temporary disturbance during construction.

New York State requires a habitat impairment test be performed in order to determine whether activities that occur in the river or nearby will destroy or significantly impair SCFWH. Because the installation of a wave screen at the Site is subject to consistency review under Federal and State laws and adjacent to the Hudson Highlands SCFWH, we endeavor to present the habitat impairment test for this project here.

Eagle Bay/Stony Point Breakers plans to make changes to the marina in three phases: 1. Demolition, 2. Wave Screen Construction, and 3. Dock Installation. The replacement of the wave screen and dock structures will occur within the footprint of the existing structures, therefore very little change to the amount of available habitat through direct physical alteration will occur in either the short or long term and no net loss of littoral habitat is expected.

Disturbance of the river bottom and pollution, including construction noise and increased turbidity, is expected to occur during project operations as the current wave screen structure and dock are removed and placed on a barge for removal to an off-site, permitted facility. This disturbance will be temporary and largely contained or mitigated by the structure of the barge and pilings in addition to the implementation of sediment and noise control BMPs during the proposed action.

Increased turbidity may cause difficulty to animals searching for prey, or disrupt the respiration of fish and invertebrates at high levels. No dredging is proposed for this project, but demolition and construction will occur using heavy equipment operating from barges, so increased boat traffic is expected. Increases in turbidity and sedimentation are expected to be minimal and have a temporary impact on the habitat and local fish and invertebrate community, except where the updated wave screen is installed and may create permanent but minor changes in wave energy and currents.

Noise from vessels, construction equipment, and pile driving has the potential to displace resident fish and may have physiological impacts to fish and invertebrates that cannot escape the area. However, noise from this project is expected to be limited to a period of one hour over a total of 17 days. Impacts to the fish and invertebrate community due to noise are expected to be minimal and temporary.

The Haverstraw Bay SCFWH is valuable to many Hudson River species. We do not believe that the Eagle Bay/Stony Point Breakers installation of riprap on top of an existing sunken barge will impair habitat to a degree that it will be detrimental to the benthic and fisheries community as a whole. The project site represents a very small area (2.83 ac) in relation to the SCFWH (approximately 8,700 acres), and the existing habitat within the marina is already altered. All impacts other than the replacement of the wave screen with more modern, sturdy materials are expected to be temporary and minor.

In conclusion, no destruction or significant habitat impairment in the footprint of the existing structure is expected.

4.0 REFERENCES

32 FR 4001. Department of the Interior; Office of the Secretary; Native Fish and Wildlife; Endangered Species; 32 Federal Register 48 (11 March 1967). pp. 4001.

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81 FR 36078. Endangered and Threatened Species; Critical Habitat for the Endangered Carolina and South Atlantic Distinct Population Segments of Atlantic Sturgeon, Proposed Rule. 81 Federal Register 107 (3 June 2016). pp. 36078 - 36123.

82 FR 39160. Endangered and Threatened Species; Designation of Critical Habitat for the Endangered New York Bight, Chesapeake Bay, Carolina and South Atlantic Distinct Population Segments of Atlantic Sturgeon and the Threatened Gulf of Maine Distinct Population Segment of Atlantic Sturgeon, Final Rule. 82 Federal Register 158 (17 August 2017). pp. 39160 - 39274.

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Appendix C.VI: Wave Screen and Floating Dock Reconstruction

PROJECT NARRATIVE

1. Introduction:

Stony Point Breakers Marina (The Site) sits on the Hudson River in Stony Point, NY and is home to a number of local vessels. Due to its location, The Site is subject to currents and waves from the river and its vessel traffic which damage and compromise the marine structures. The Site is currently protected from such wave action by a timber wave screen that has severely deteriorated over its lifespan to the point where it is now failing in numerous locations. Protection of the marina is compromised; the wooden docks within the marina exhibit damage far beyond wear and tear. The project proposes to remove the wave screen and replace in-kind using updated materials for a stronger, more durable structure that will reduce wave energies on the land side. This action will enable the removal and replacement of the constructed docks which have added longevity due to their improved protection.

2. Site Location and Description:

This Project is in the Town of Stony Point, in Rockland County along the Hudson River just South of Stony Point State Park. Figure 1 delineates the bounds of the Site. The center of the site is at the following general coordinates:

Lat: 41 degrees, 14 min, 7 seconds North
Long: 73 degrees, 58 mins, 30 seconds West

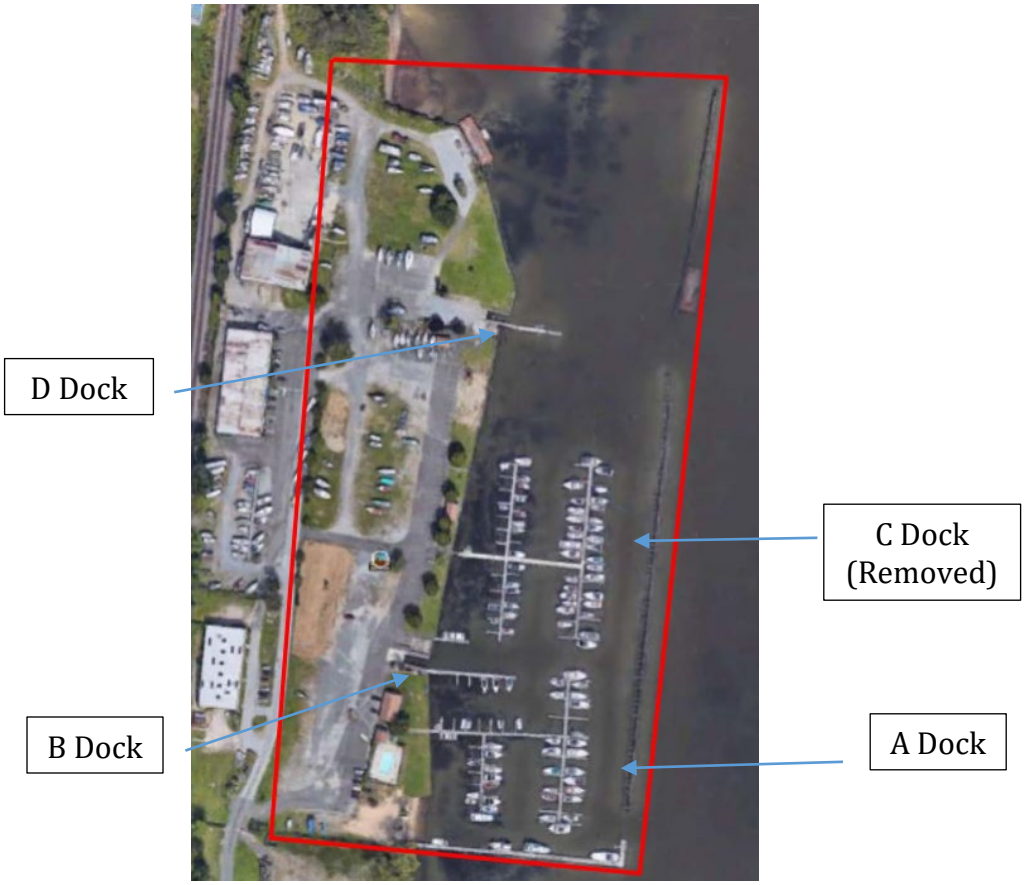

Figure 1: Aerial of Project Site, 2017, via Google Earth

The project will take place in the in the footprint of the existing wave screen and floating docks, which can be seen in Figure 1. The land portion of the site will be used for material delivery and as a laydown/loading area; a barge will be loaded with equipment and materials to be brought out to the location of the new wave screen.

Originally, the marina contained four dock sections, A Dock through D Dock, with 171 slips. In early 2018, C Dock was removed due to the excessive damage it had endured which decreased the slip count to 71. The proposed project would add 94 more slips and be located where C Dock used to be. The previous docks' locations are labeled below.

3. <u>Project Purpose and Need</u>

The marina is currently in a state of deterioration; the weathered wave screen is providing minimal protection from the river's wave action causing dock deterioration, failures, and unsafe

public operations. As such, replacing the docks necessitates replacement of the breakwater, otherwise the structures will fail again. The marina is an existing water dependent use for the public and exists in a Local Waterfront Revitalization area that is committed to boating on the Hudson River.

4. Description of Proposed Action

The proposed project will consist of three (3) phases: Demolition, Wave Screen Construction, and Dock Installation.

4.1. **Phase 1 - Demolition***:* A PC220 is to be transported out to the existing wave screen and marina via a work barge. The excavator will be equipped with a grapple to remove all material, including piling, that currently makes-up the wave screen. The intent is to extract the timber piles; if extraction is not possible, they will be cut at the mudline. The existing docks will be removed and rebuilt on land.

4.2. **Phase 2 - Wave Screen Construction:** The same PC220 and work barge will be used to drive piles, position timber members, and drive sheeting. The proposed wave screen is to utilize a 12 in. plumb and batter timber pile system, with bents 6 ft on center, and FRP sheet piles secured as the outward face. The sheeting will be embedded into the midline approximately 8 ft, and have timber whalers bolted to the timber piles for support. Material will be loaded on the barge on shore from the laydown area and floated to the intended area for the wave screen for installation.

4.3. **Phase 3 - Dock Installation:** The existing floating docks will be re-constructed using new timber, deck materials, and hardware. Once Phase 2 is complete, the existing docks will be lifted back into the water and installed using timber piles. The docks will be in the same footprint as the current layout, and include the same utilities – electrical and water.

5. Engineering and Construction Discussion:

The breakwater fence has to be designed for wake, storm waves, and currents to ensure resiliency. Utilizing ASCE24-14 and FEMA guidance, the structure will meet the 100-year storm requirements in the VE Zone offshore of the marina. Wake waves on the river will be the governing force on the wave fence, as the tug boats on the river generate higher waves than the 100-year storm. The top elevation of the fence will allow over-topping past the 100-year storm, relieving forces on the structure. However, the marina is required to be emptied in this storm event.

The location of the breakwater is selected to avoid any detrimental effects on adjacent structures i.e. it does not divert any flow or waves against adjacent properties. Moreover, due to the shallow water, and the shape of the breakwater, channelization is avoided, and flow levels remain unaffected.

In Phase 1, the excavator will remove the wave screen by using a grapple attachment to pull piles, timber sheeting, and structural timber from the water and onto the barge. The material will be brought to shore, placed in dumpsters, and hauled off site as waste. Likewise, the timber docks are floated to shore and removed with the existing travel lift.

Once the existing wave screen is demolished the excavator will load material from the shore onto the barge and begin driving piles for the new wave screen using an impact hammer in place of the grapple that will be used for material handling purposes. There will be 93 pile bents at 6′ on center to form the new portion of the wave screen. The dock-builders will frame out the whalers and bolt them to the timber piles before installing the sheet piles with the excavator.

6. Project Impacts

6.1. **Impact on Land –** With greater resistance and absorption of wave energy, the new wave screen will lessen the forces of the river on the shoreline.

6.2. **Impact on Water –** The water impacts of the project will take place behind the wave screen in the marina. The water within its limits will be calmer for vessel traffic and dock movements as they react with waves. Boats will impose minimal wakes inside the marina, so the waters will remain calm. The piles (all timber in wave screen?) will be pressure treated with Chromated Cooper Arsenate (CCA) in an area that is not subject to public access. Construction work is anticipated to be less than 30 days, and impacts are transient. Moreover, removal of the deleterious material and abandoned barges for the new breakwater will increase water flow and quality. Only beneficial impacts are anticipated.

6.3. **Impact on Air –** New York County is designated under NYSDEC regulations and the New York State Implementation Plan as a severe non-attainment area for Ozone as part of the New York City Metropolitan Area. However, this project will add no industrial equipment (stationary) that produces emissions. The material handling equipment will meet New York State requirements for non-road construction equipment emissions. The project will not impact air**.**

6.4. **Impact on Transportation –** The Project will make access by boat to the Hudson River more pleasant and simple for local boaters. An improved marina will attract more boaters and encourage them to travel the river.

6.5. **Impact on Energy –** The current marina has electrical service capacity up to 1200amps. No additional electrical services will be brought to site.

6.6. **Impact on Plants and Animals and significant habitats -** The Project is located in a Critical Habitat area for Atlantic Sturgeon, and within the Hudson River estuary. As such, it is anticipated that a moratorium on in-water work will be enforced for pile driving. Additionally, there is no Submerged Aquatic Vegetation in the project area nor wetlands, and wildlife is minimal. The performance of the work in accordance with the moratorium in an area devoid of habitat will result in negligible or no impact to plants and animals and significant habitats. *Please see the attached EFH Assessment form.*

Based upon the engineering, the structures to be demolished are old timber structures, dating from when creosote was utilized for preservation. The removal of these materials from the waterway will improve all future habitat.

6.7. **Impact on Aesthetic Resources –** The current state of the marina's docks and wave screen can be much improved; these structures are worn, failing, and unappealing. With a new, strong wave screen and stable, complete docks, the marina's aesthetics will improve drastically and become more attractive to recurring and potential patrons.

6.8. **Impact on Open Space and Recreation –** A renovated and protected marina will boost water-dependent recreation such as boating and fishing as the environment will be more feasible in which to enjoy these activities.

6.9. **Impact on Historic and Archeological Resources –** There are no documented historic or archaeological resources at the project site. There will be no impacts on Historic or Archaeological resources.

6.10. **Noise and Odor Impact –** The project involves the installation of pile supported structures and use of tracked equipment. Noise impacts are temporary in nature and considered to be non-impactful. Potential impacts of noise on wildlife will be negligible, as pile driving will be performed in accordance with the moratorium for in-water work. There are no operations that will cause odor of any level.

7. <u>Mitigation of Impacts</u>

As identified above, in the EFH Assessment in Section II, the Short EAF Form in Section III, the and the FCAF form in Section IV, the impacts are not deemed to be significant on this site. The replacement of the current structures with modern materials aids in the extension of the life cycle and maintenance periods, thereby requiring fewer replacements, major overhauls, and construction time on site.

7.1. Alternatives Assessment. In order to determine the least impactful solution for the rehabilitation of the waterfront structures, a detailed assessment of the alternatives was performed. The summary of findings and justifications are below:

7.1.1. Alternative 1: No Action: The state of the marina has already and continues to decline with inadequate protection for the Hudson River's waves. Action is needed to restore and preserve the marina.

7.1.2. Alternative 2: Replace Wave Screen in Kind (Proposed): The motivation for using a wave screen to protect the marina is physically and economically sound. The proposed plan replaces the wave screen in its current footprint with a very similar design; the notable changes are the inclusion of a batter pile and utilization of vinyl sheeting in lieu of timber. These design changes will improve the screens strength an resistance to wave energy.

7.1.3. Alternative 3: Repair Wave Screen: The condition of the wave screen is such that repairs cannot be affected without significant removals. As such, the demolition of the structure to affect replacement was deemed to be less impactful than repair.

7.1.4. Alternative 4: Floating Attenuator: A common mitigation for wave climate within marinas is the use of large, heavy barges to absorb wave energy. This is a cheaper solution which typically does come at a sacrifice of some effectiveness. This was not chosen as the scope of this project because sufficient and resilient attenuation was desired more than a reduction in initial cost.

7.2. Best Management Practices:

7.2.1. Soil and Erosion Control

7.2.1.1. The use of turbidity curtains/floating booms to mitigate turbidity and floating debris;

7.2.1.2. Construction will cease should a noticeable increase in turbidity occur until adequate BMPs are deployed to contain the work area;

7.2.1.3. SWPPP controls with be implemented and followed;

7.2.1.4. Shoreward erosion and sediment controls will be in place before the commencement of work;

7.2.1.5. Work will be accomplished at low tide as much as practically possible;

7.2.1.6. Construction debris will be collected and disposed of in approved off-site waste disposal areas.

7.2.2. Environmental Protection

7.2.2.1. Work will adhere to all required environmental moratoriums;

7.2.2.2. Construction debris will be tested for contamination, and any contaminated material will be disposed of as required in the remediation plan;

7.2.2.3. Barges and equipment will be protected against spills into the waterway;
7.2.2.4. A spill kit will be on site should any spill occur;
7.2.2.5. Construction equipment will not work waterward of MHW unless on floating platforms that cannot ground out;
7.2.2.6. Construction equipment, when not in service, will be staged a minimum of 50 ft away from the waterfront on impervious surfaces for spill protection.;
7.2.2.7. Care will be exercised to prevent any debris from dropping into the waterway by use of portable spill plates during active unloading operations. Any materials dropped shall be removed immediately and legally disposed of.

8. Construction Means and Methods, Sequence

8.1. Equipment.

8.1.1. The contractor will utilize a Komatsu PC220 equipped with pile driving hammer and grapple on site to install the foundation piles, vinyl sheeting, and structural timber members. As typical, this will be mounted on a barge for ease of access, as mobilization through the marina would be difficult.

8.1.2. A tug will mobilize the barge throughout the site where water depths are 3.5 ft at MLLW, and therefore a 3 ft draft tug will have minimal impact on the mudline.

8.1.3. Other minor equipment will include a materials barge, compressors, a lull, and construction vehicles.

8.2. Sequence & Methods

8.2.1. The crew will first construct the barge mentioned in Section 5 on site. All necessary material will be shipped directly to the site.

8.2.2. The PC220 will mount the completed barge and begin to deconstruct the existing wave screen. Using the grapple attachment, sheets and bracing will be removed from the pile supports and loaded on the barge. The barge will mobilize to the shore to deposit waste material into a dumpster as needed. Once all bracing and sheeting is removed, the excavator will pull piles up from the mud and discard as with the previous timber.

8.2.3. All anticipated new material – timber piles, timber bracing, vinyl sheeting, stainless steel hardware, and necessary falsework material will be delivered to the site before new construction begins.

8.2.4. A survey will be conducted to determine and mark a centerline for pile driving to guide the operator of the excavator. Once complete, the excavator will use the vibratory hammer to pick piles on shore and drive piles starting at the south end, driving a batter pile and then its partnered plumb pile.

8.2.5. Dock builders will follow behind the excavator on a working platform to install 4"x10" headers by bolting them through the piles at each bent. They will install the upper ones at high tide and the lower ones at low tide – this allows for ease of access to elevations needed for headers.

8.2.6. Longitudinal bracing will be installed on the eastward face of the pile line and bolted to the headers at both upper and lower locations.

8.2.7. The excavator will pick the vinyl sheets and drive them with the hammer at the face of the longitudinal bracing until the top of the sheeting is 6 in. above the top of the upper braces. Sheets are then bolted to the bracing.

8.2.8. Once the screen is complete, the existing docks will be removed and stripped; decking, electrical equipment, and other outfitting will be stored and repurposed as necessary and possible.

8.2.9. Prefabricated floating docks will then be brought to the shoreline to be floated into the marina and placed in their intended locations. Docks will be secured in place using timber piles.

8.3. Schedule. It is anticipated that the tasks detailed above, specifically the major tasks will take the following amounts of time:

8.3.1. Deconstruction of current wave screen – 26 days

8.3.2. Survey to establish centerline of new wave screen – 1 day

8.3.3. Pile driving in-water – 17 days total with 2 hours per day of active pile driving with vibratory hammer.

8.3.4. Plumb pile bents and install timber 4"x10" headers to secure – 24 days

8.3.5. Install 4"x12" braces with 1 in. bolts– 16 days

8.3.6. Drive vinyl SG-650 sheet piles and lag bolt to braces– 10 days

8.3.7. Site clean-up and demobilization – 2 days

9. Regulatory Compliance

9.1. The purpose of the Tidal Wetlands Act is to "preserve and protect tidal wetlands, and to prevent their despoliation and destruction, giving due consideration to the reasonable economic and social development of the State." See ECL § 25-0102. The Protection of Waters Act has a comparable objective. See ECL § 15-0105. The regulations adopted under these statutes are intended to effectuate these objectives, and thus are to be construed consistent with these legislative goals.

9.2. The standards for Tidal Wetlands permits are set forth in 6 NYCRR § 661.9(b). An applicant needs to show that the proposed project:

9.2.1. Is compatible with the preservation and protection of, and would not have an undue adverse impact on wetlands, taking into account the social and economic benefits of the proposal;

9.2.2. Is compatible with the public health and welfare;

9.2.3. Is reasonable and necessary, taking into account such factors as reasonable alternatives to the proposed activity and the degree to which that activity is water dependent; and

9.2.4. Complies with applicable use guidelines (if the use is designated as "presumptively incompatible", the applicant has the burden of overcoming the presumption that the use is incompatible with the protection and preservation of tidal wetlands).

9.3. For a Protection of Waters permit, an applicant needs to show that the proposed project:

9.3.1. Is reasonable and necessary;
9.3.2. Would not endanger the public health, safety or welfare; and
9.3.3. Would not cause unreasonable, uncontrolled or unnecessary damage to natural resources of the state.

9.4. See 6 NYCRR § 608.8. In considering a proposal's consistency with these standards, NYSDEC may, pursuant to 6 NYCRR §§ 608.7(b) (1)-(7), consider various factors, including:

9.4.1. The environmental impacts of the proposal, including effects on
- 9.4.1.1. Aquatic, wetland and terrestrial habitats;
- 9.4.1.2. Water quality;
- 9.4.1.3. Hydrology; and
- 9.4.1.4. Water course and waterbody integrity (e.g., turbidity and sedimentation).

9.4.2. The adequacy of design and construction techniques;
9.4.3. Operational and maintenance characteristics;
9.4.4. The safe commercial use of water resources;
9.4.5. The water-dependent nature of a use;
9.4.6. The safeguarding of life and property; and
9.4.7. Natural resource management objectives and values.

9.5. **<u>The proposed project satisfies the foregoing standards for issuance of Tidal Wetlands and Protection of Waters permits.</u>**

Appendix D: Archeological Investigation Report

Phase I Archaeological Investigation for the proposed Breakers subdivision
Town of Stony Point, Rockland County, New York

July 2016

Prepared for:
Atzl, Nasher & Zigler P.C., New City, New York

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

866

MANAGEMENT SUMMARY

PR#:
none known

Involved agencies:
Town of Stony Point
NYDEC

Phase:
Phase IA & IB

Location:
Town of Stony Point
Rockland County

Survey Area:
Length: about 1350 feet (412 meters) north-south
Width: about 500 feet (152) east-west
Acres Surveyed: about 7 acres (2.8 hectares)

USGS:
Haverstraw, NY

Survey overview:
ST no. & interval: 44 ST's at 25 ft (7.5m) intervals where possible
Size of freshly plowed area: na
Surface survey transect interval: Na

Results:
No prehistoric or historic sites
Property is an active marina with numerous buildings, paved & gravel parking areas and roads, parked boats on grass, & filled/graded soils

Results of Architectural Survey:
No. Of buildings/structures/cemeteries in project area: numerous (marina)
No. Of buildings/structures/cemeteries adjacent to project area: RR tracks/bed
No. Of previously determined NR listed or eligible buildings/structures/cemeteries/districts: none
No. Of identified eligible buildings/structures/cemeteries/districts: none on project area (adjacent to Stony Point Battlefield)

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

Date of Report:
Report completed July, 2016

TABLE OF CONTENTS

Introduction.....1

Environment.....1-2

Prehistoric Potential.....2-3

Historic Potential.....3-4

Field Methods.....4-5

Field Results.....5

Conclusions and Recommendations.....5

Bibliography.....6

Appendix 1: Figures and Photographs

Appendix 2: Shovel Tests

LIST OF FIGURES

Figure 1 Haverstraw, NY USGS

Figure 2 Location of the ST's on the project area

Figure 3 1779 Sauthier map

Figure 4 1854 map of Rockland County

Figure 5 1859 County map

Figure 6 1875 Beers atlas of Rockland County

Figure 7 1943 USGS

Figure 8 County Soil Survey

LIST OF PHOTOGRAPHS

Photo 1 Looking north from near Hudson Drive

Photo 2 Looking east from near ST 13

Photo 3 Looking at parking area for boats

Photo 4 Looking at more parked boats

Photo 5 Looking at "green" area and more parked boats

INTRODUCTION

Between June 24 and 30, 2016, TRACKER Archaeology, Inc. conducted a Phase IA documentary study and a Phase IB survey for the proposed Breakers subdivision, Town of Stony Point, Rockland County, New York.

The purpose of the Phase IA documentary study was to determine the prehistoric and historic potential of the project area for the recovery of archaeological remains. The Phase IA was implemented by a review of the original and current environmental data, archaeological site files, other archival literature, maps, and documents.

The prehistoric and historic site file search was conducted at the New York Historic Preservation Office in Waterford, New York. Various historic web sites were queried via the internet to review any pertinent site information.

The purpose of the Phase IB survey was to recover physical evidence for the presence or absence of archaeological remains on the property before their potential destruction. This was accomplished through subsurface testing and ground surface reconnaissance.

The project area (APE) consists of approximate 7 acres which includes numerous buildings, paved parking areas, parked boats, etc. The property is bound to the west by Conrail rail bed/tracks, to the east by the Hudson River, to the north by Stony Point State Park and to the south by Hudson Drive and private property.

The study was completed by TRACKER Archaeology, Inc. of Monroe, New York. Prehistoric and historic research was conducted by Kim Croshier and Alfred G. Cammisa, M.A., principal investigator. Field work was conducted by field direcdtor Alexander D'Amico, M.A. and Alfred T. Cammisa. Report preparation by Alfred G. Cammisa with Alexander Padilla, B.A.

The work was performed for Atzl, Nasher & Zigler P.C., New City, New York.

ENVIRONMENT

Geology

The project area is located in the southeast portion of New York State in the east part of Rockland County. This portion of New York lies within the New Jersey Lowland Physiographic Province. The surrounding Piedmont Physiographic Province is described as an upland of moderate elevations with several lowlands areas known as the New Jersey Lowlands (Schuberth 1968: cover map, 13-14; Isachsen et al 2000: 143).

Soil and Topography

Soils on the property consist:

Name	Soil Horizon Depth in (cm)	Color	Texture Inclusion	Slope %	Drain-age	Land-form
Uthorthents, wet substratum	na	na	fill is Sa to SiLo	0-15	poor	filled depressions, tidal marsh, drainages

Name	Soil Horizon Depth in (cm)	Color	Texture Inclusion	Slope %	Drain-age	Land-form
Ipswich	Oe1=0-12 (0-30) Oe2=12-40 (-1m) Oe3=40-60	5Y3/2 5Y3/3 10YR2/1	mucky peat & fiber mucky peat mucky peat	0-15	poor	areas along the Hudson River subject to daily flooding

(Bonnell 1990: map #6, pgs. 31, 42, 83, 87).

KEY:

Shade: Lt=Light, Dk=Dark, V=Very
Color: Br=Brown, Blk=Black, Gry=Gray, Gbr=Gray Brown, StBr=Strong Brown, Rbr=Red Brown, Ybr= Yellow Brown
Soils: Si=Silt, SiLo=Loam, Sa=Sand, Cl=Clay
Other: Sh=shale, M=Mottle, Gr=Gravelly, Cb=cobbles, Ch=channery, Fi=Fine,/=or

Elevations are approximately 4 to 12 feet above mean sea level.

Hydrology
The project area is adjacent to the Hudson River.

Vegetation
The predominant forest community in this area was probably the Oak Hickory. This forest is a nut producing forest with acorns and hickory nuts usually an obvious part of the leaf litter on the forest floor. The Oak Hickory Forest intermingles with virtually all other forest types. The northern extension of this forest community was also originally called the Oak-Chestnut forest, before the historic Chestnut blight (Kricher 1988:38, 57-60).

At the time of the Phase IB field survey, the study area consisted of an active marina with numerous buildings and paved and gravel parking areas, roads/driveways, and parked boats on grassy areas.

PREHISTORIC POTENTIAL

A prehistoric site file search was conducted at the New York State Historic Preservation Office. The search included less than a mile radius around the study area. The following sites were recorded:

NYSM Site	NYSHPO Site	Distance from APE ft(m)	Site Type
597		1565 (477)	old surface find: no info.
4631		adjacent (large area)	ACP: small village with camp out to promontory, shell heaps
7461		adjacent (large area)	small rock-shelter with Clearview-like sherds

NYSM Site	NYSHPO Site	Distance from APE ft(m)	Site Type
7817		4359 (1329)	ACP: traces of occupation
	8705.0071	5018 (1530)	Bare Is type point, scraper, round basalt w/pitting & some perforations, chert tool w/ unifacially retouched edge

Assessing the known environmental and prehistoric data, we can summarize the following:

-The project area is adjacent to the Hudson River.

-The property consists of level topography with swampy and filled soils.

-Numerous prehistoric sites were located in the vicinity of the study area, possibly close by.

In our opinion, the study area has an above average potential for the recovery of prehistoric remains on any intact soils. However, the chance of encountering intact soils is low.

HISTORIC POTENTIAL

Contact Period (Seventeenth Century)
A the time of European contact and settlement, the study area and surrounding territory were probably occupied by the Tappans who were likely a subtribe of the Munsi speaking Lenni Lenape (Delaware) (Bolton 1975:map & chart; Ferdon 1986: 22; Bedell 1968: 27-30; Synder 1969:2).

Indian trails entered Rockland County from New Jersey. The Assanpink Trail connected Trenton, New Jersey with Suffern in Rockland County (Synder 1969:2).

Eighteenth Century
During this century most of the inhabitants were engaged in growing maize, potatoes, cereals, fruit orchards and flax. Wool was sheared and spun and hay was gathered (Bedell 1968: 54).

The 1779 Sauthier map shows the project area in Stony Point. (Figure 3).

In 1781, 50 flat bottomed boats were docked at Stony Point. There were also 2 field cannon but no (earth) works of any kind (Green 1886:103).

Nineteenth Century
In 1826 the federal government purchased property on Stony Point promontory for a lighthouse (green 1886: 438).

The 1854 map of Rockland County depicts the project area in water and/or marsh (Figure 4).

The 1859 County map also shows the project area in water and/or marsh (Figure 5)

Early industries included brick making and limestone quarrying (Green 429:1886).

The first drug store was opened in 1865 in the village by E.O. Rose, the first public hall in 1873, and soon after the post office. In 1844 a factory for producing pyroligneoius acid was built (Green : 434:1886).

The 1875 Beers atlas now shows the railroad proposed through the water which would mean the project area was likely filled some time before the rail was constructed (Figure 6).

A marsh existed along the area that the railroad was constructed (Kiefer 1888:67).

Twentieth Century
The 1943 USGS shows the railroad in place with the project area adjacent to it (Figure 7).

An historic site file search was conducted at the New York State Historic Preservation Office. The search included less than a mile radius around the study area. The following sites were recorded:

NYSM Site	NYSHPO Site	Distance from APE ft(m)	Site Type
	90NRO2408	adjacent	NRL Stony Point Battlefield-National Historic Landmark: small scale Revolutionary War battle 7/16/1779
	8705.00081	3262 (995)	NRE R.B. Marks Site w/ sawed bones, kaolin pipe bowl, pearlware, lead glazed redware, manganese glaze redware, blue HP pearlware, white & cream wares, blue transferprint ww, annular ww, cut and wrought nails
	8705.00080	34181042)	Stony point Blacksmith Site w/crown cap, 3 cut nails, horse shoes, wrought nail, clams,

Assessing the known environmental and historic data, we can summarize the following:

-The project area is adjacent to the Hudson River.

-The property consists of level topography with swampy and filled soils.

-Historic sites are in the surrounding area. A National Historic Battlefield is adjacent to the project property.

-No historic map documented structure were on the project area which seems to have been a marsh or open water.

In our opinion, the study area has a higher than average potential for the recovery of late nineteenth to early twentieth century historic sites on any intact soils. However, the chance of encountering intact soils is low.

FIELD METHODS

Walkover
Exposed ground surfaces were subjected to a close quarters walk- over at approximately 3 to 5 meter transects. Covered ground terrain was reconnoitered at about 7.5 meter intervals for any above ground features, such as berms, depressions, rock configurations, etc. that could be evidence for a prehistoric or historic site. Photographs were taken of the project area.

Shovel Testing
Shovel tests were excavated at about 7.5 meter intervals across the project area. Shovel tests were paced apart. Each shovel test 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. All shovel tests were mapped on the project area map at this time with the assistance of a compass.

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 44 ST's across the project area at 25 foot intervals. No prehistoric artifacts or features were encountered. No historic artifacts or features were encountered. The project area consists of an active marina.

Stratigraphy
Stratigraphy across the property was fairly uniform and included the following:

A/O horizon: 2 to 8 cm. thick of root mat, leaf litter, and/or humus.

Graded A horizon and/or/fill: 7 to 30 cm. thick of 10YR4/3 dark brown sand often mottled, sometimes with gravel, and usually with twentieth century debris.

B horizon or fill or outwash bottom: about 10 cm. dug into where possible of 10YR5/6 yellow brown sand which is often impeded by debris, river cobbles, clay, gravel, etc. Since the soil map depicts the project area and fill soils or muck and historic maps depict the project area to have been in marsh and or water, this layer is suspect. However, it has the same color as subsoil in the region.

CONCLUSIONS AND RECOMMENDATIONS

The Phase IA had determined that based upon topographic characteristics and proximity to prehistoric sites and Indian trails, the property was assessed as having an above average potential for encountering prehistoric sites on any intact soils. However, the chance of encountering intact soils is low.

Based upon topographic characteristics and proximity to historic sites, Indian trails, and map documented structures, the property was assessed as having an above average potential for encountering historic sites on any intact soils. However, the chance of encountering intact soils is low.

During the course of the Phase IB archaeological field survey, 44 ST's were excavated at 25 foot intervals. No prehistoric artifacts or features were encountered. No historic artifacts or features were encountered. The project area was a developed marina with numerous buildings, paved and gravel parking areas and roads, parked boats on grassy area, and mottled, graded/filled soils. No further work is recommended.

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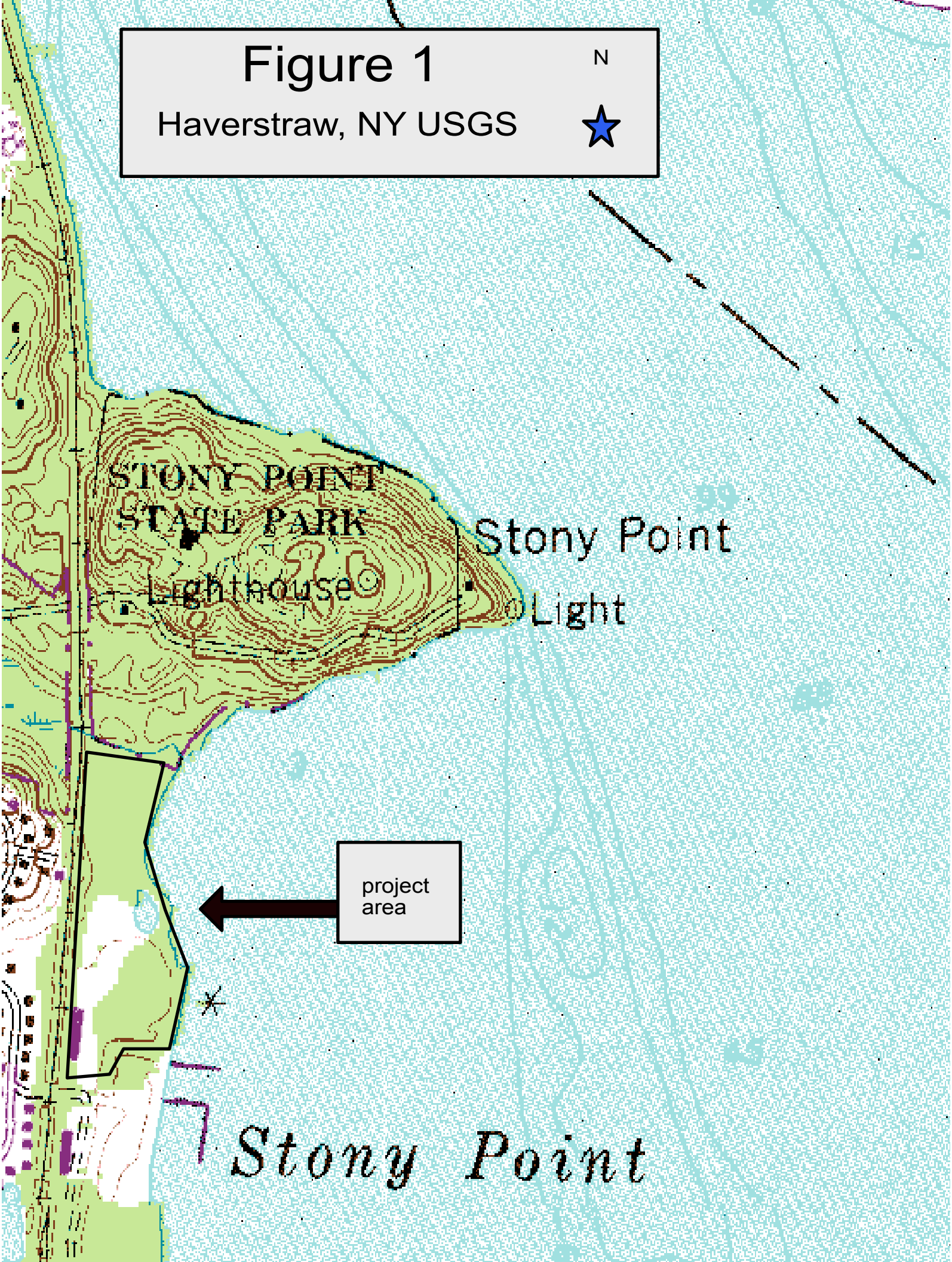
APPENDIX 1

Figure 1

Haverstraw, NY USGS



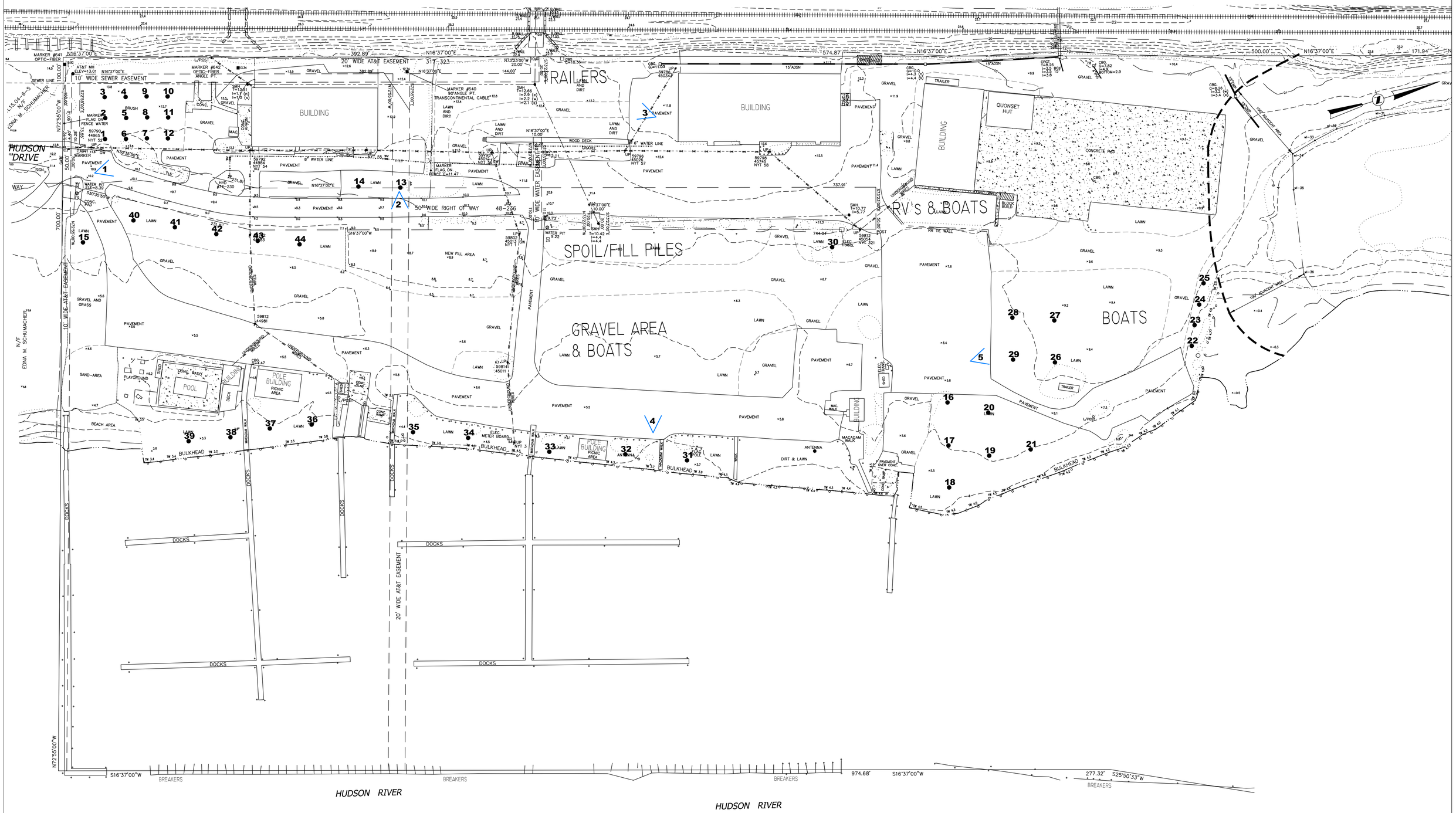


FIGURE 2: LOCATION OF SHOVEL TESTS

V PHOTO ANGLE

• NEGATIVE SHOVEL TEST

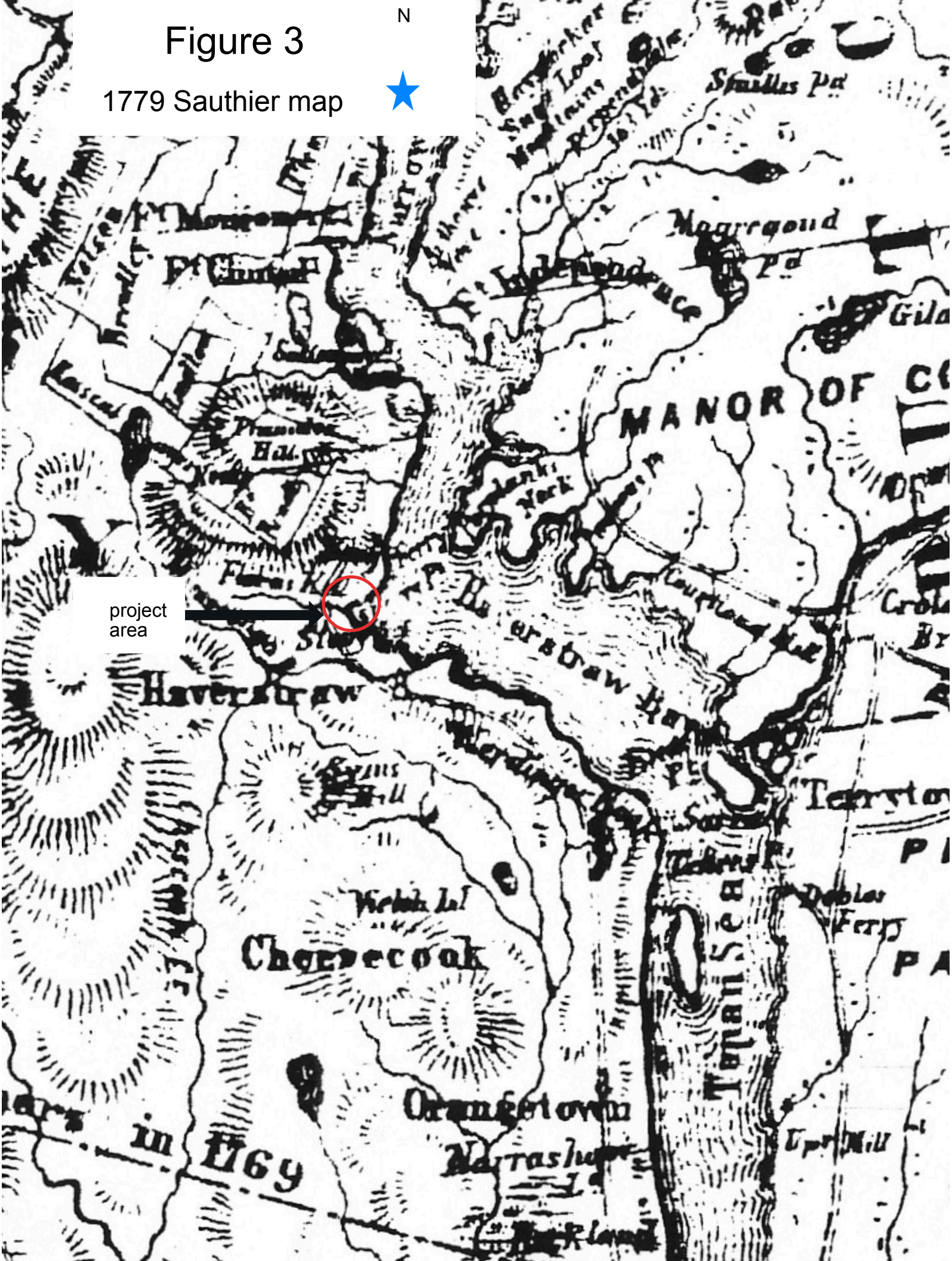
PROJECT NAME: THE BREAKERS

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

Figure 3

1779 Sauthier map

N



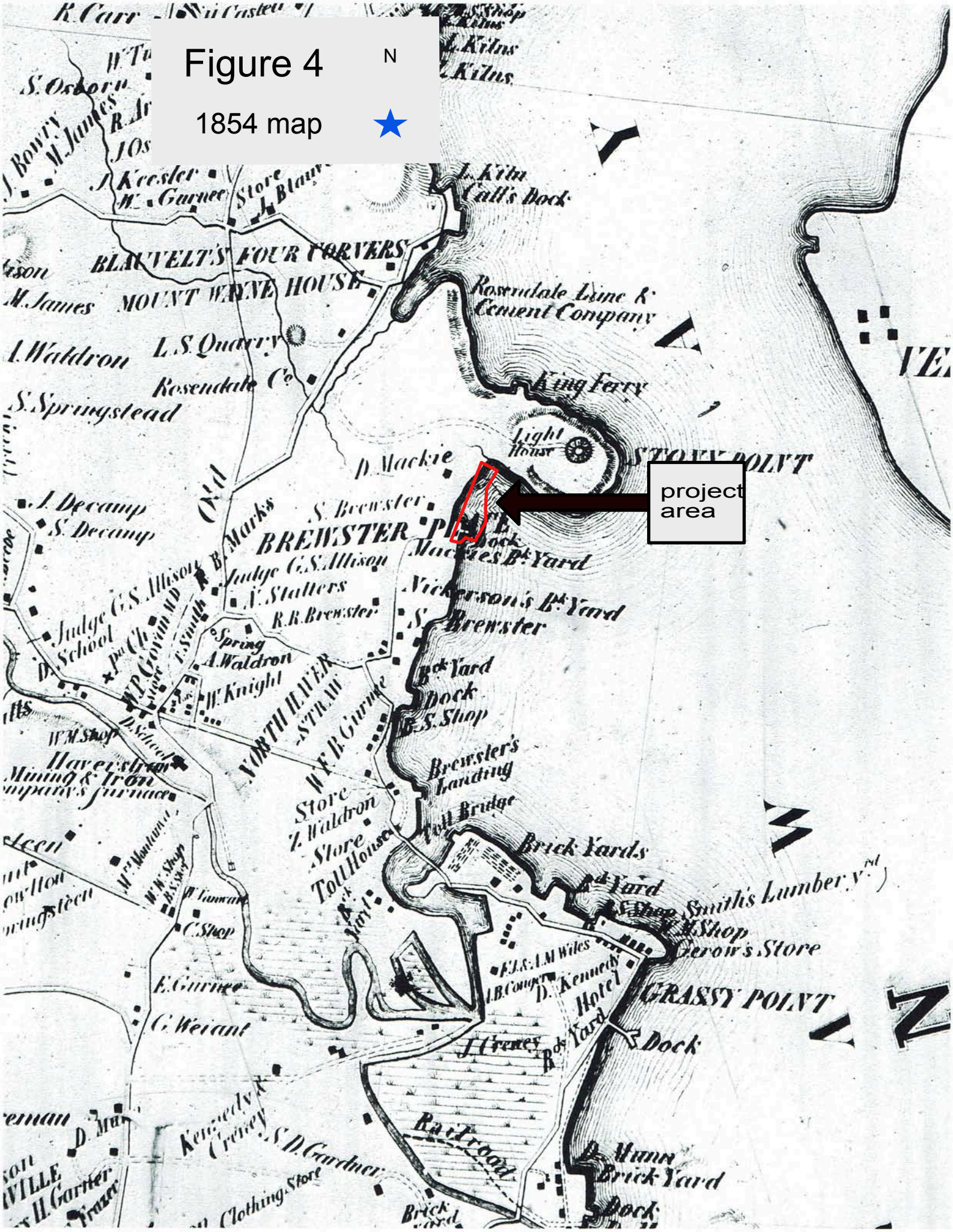


Figure 4
1854 map
N
project area
BLAUVELT'S FOUR CORNERS
MOUNT WAYNE HOUSE
Rosendale Lime & Cement Company
King Ferry
Light House
STONY POINT
BREWSTER PLACE
Brewster's Landing
Toll Bridge
Brick Yards
Smith's Lumber Yd
GRASSY POINT
Hotel
Dock
Railroad
Brick Yard
Clothing Store

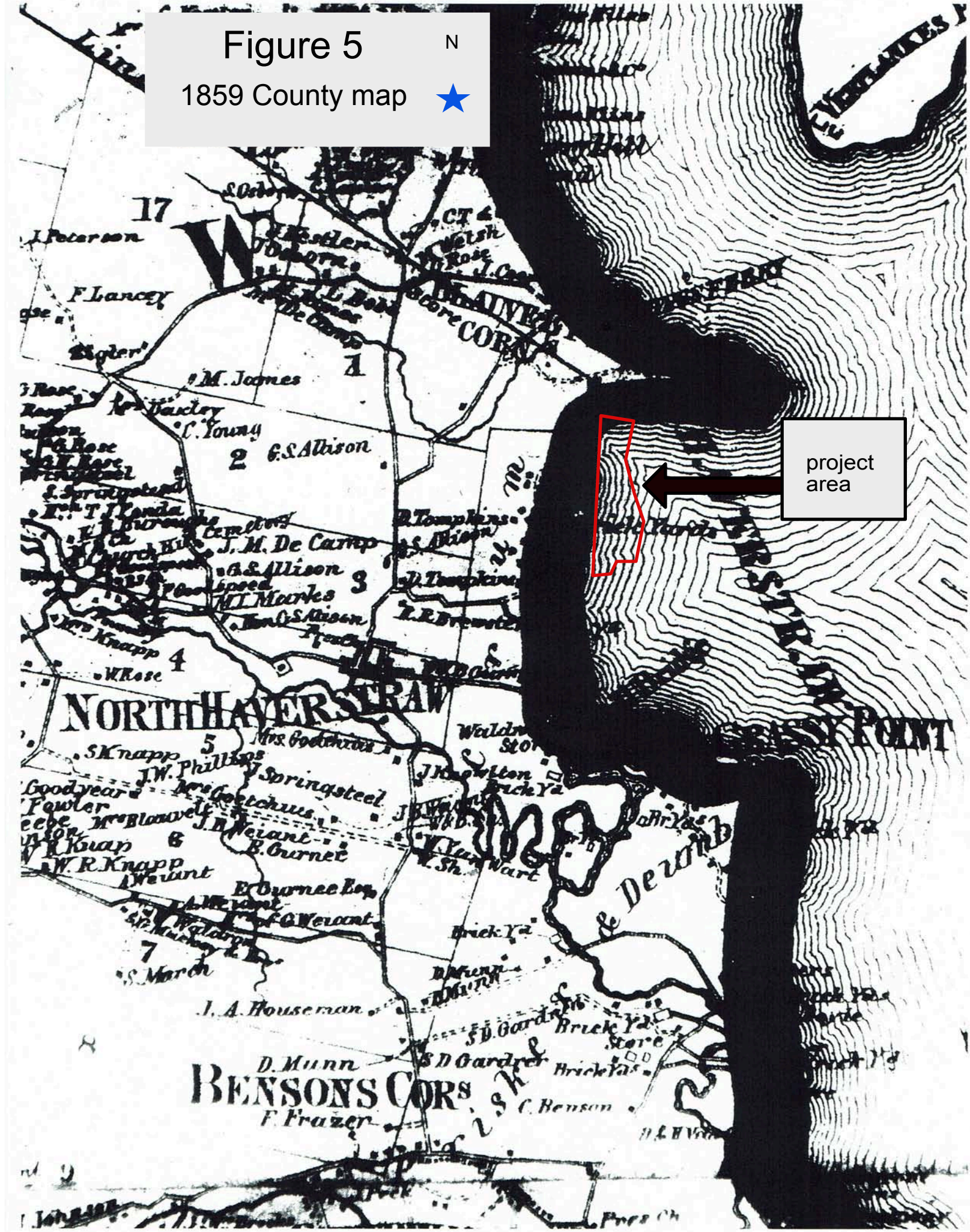


Figure 5
1859 County map
N
project area
NORTH HAVEN STRAW
BENSONS CORS
GRASSY POINT
J. M. De Camp
G. S. Allison
M. Jones
C. Young
F. Lancey
J. Peterson
J. A. Houseman
D. Munn
F. Frazer
C. Benson
S. Knapp
J. W. Phillips
Mrs. Goodchaus
J. Springsteel
B. Garnet
E. Garnee Esq
Brick Yd
Store

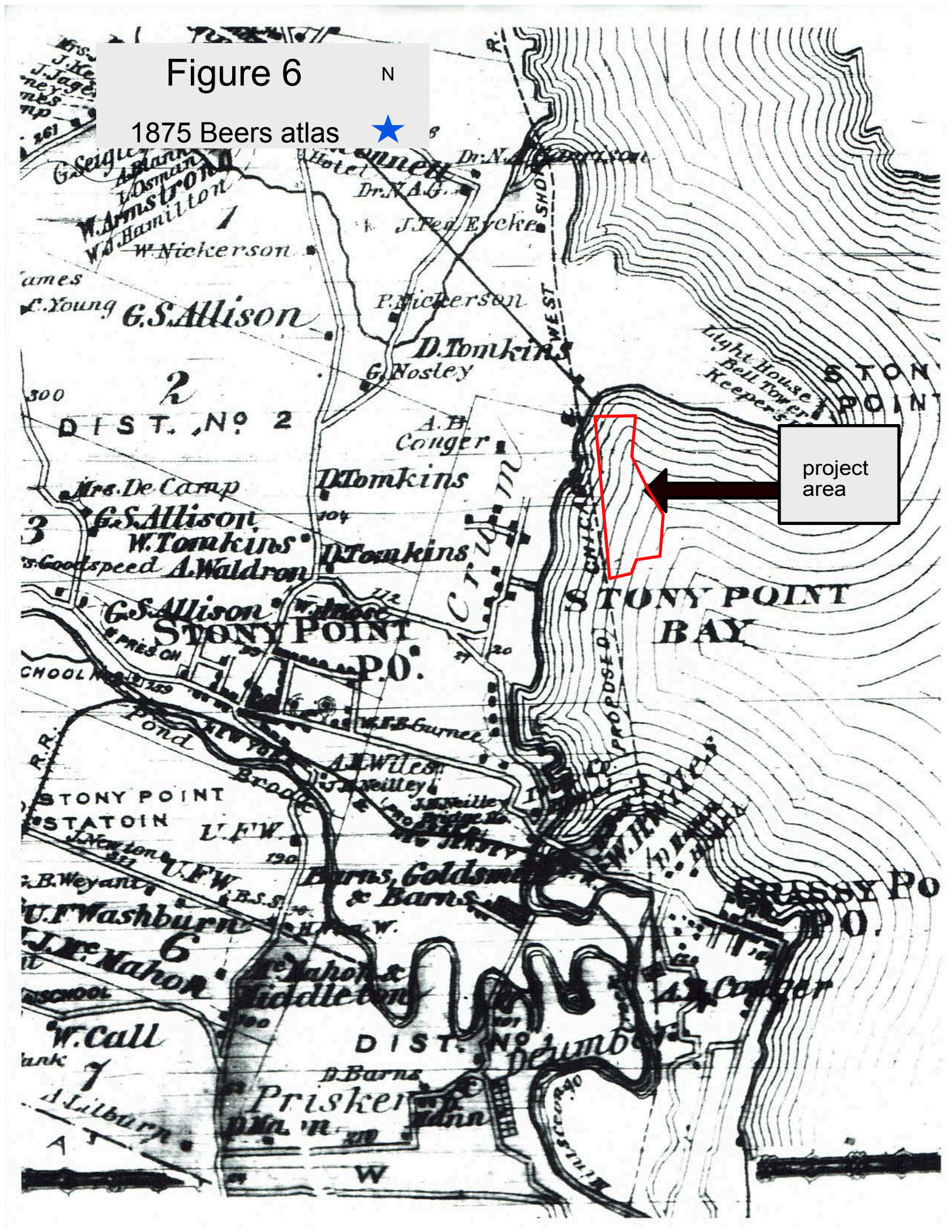


Figure 6
N
1875 Beers atlas
project area
STONY POINT BAY
STONY POINT P.O.
DIST. No 2
G.S.Allison
D.Tomkins
W.Nickerson
P.Nickerson
A.B. Conger
Light House Bell Tower Keepers
STONY POINT STATOIN
Pond
Brook
Priskel
DIST. No
W.Call
A.Lilburn
Burns, Goldsmith & Barns
Mrs. De Camp
W.Tomkins
A.Waldron
W.Armstrong
W.Hamilton
J.Fed Eycke
G.Nosley
A.Wiles
U.F.W.
U.F.Washburn
J.F.Mahon
Middleton
A.Conger
Hunts Cove
GRASSY PO

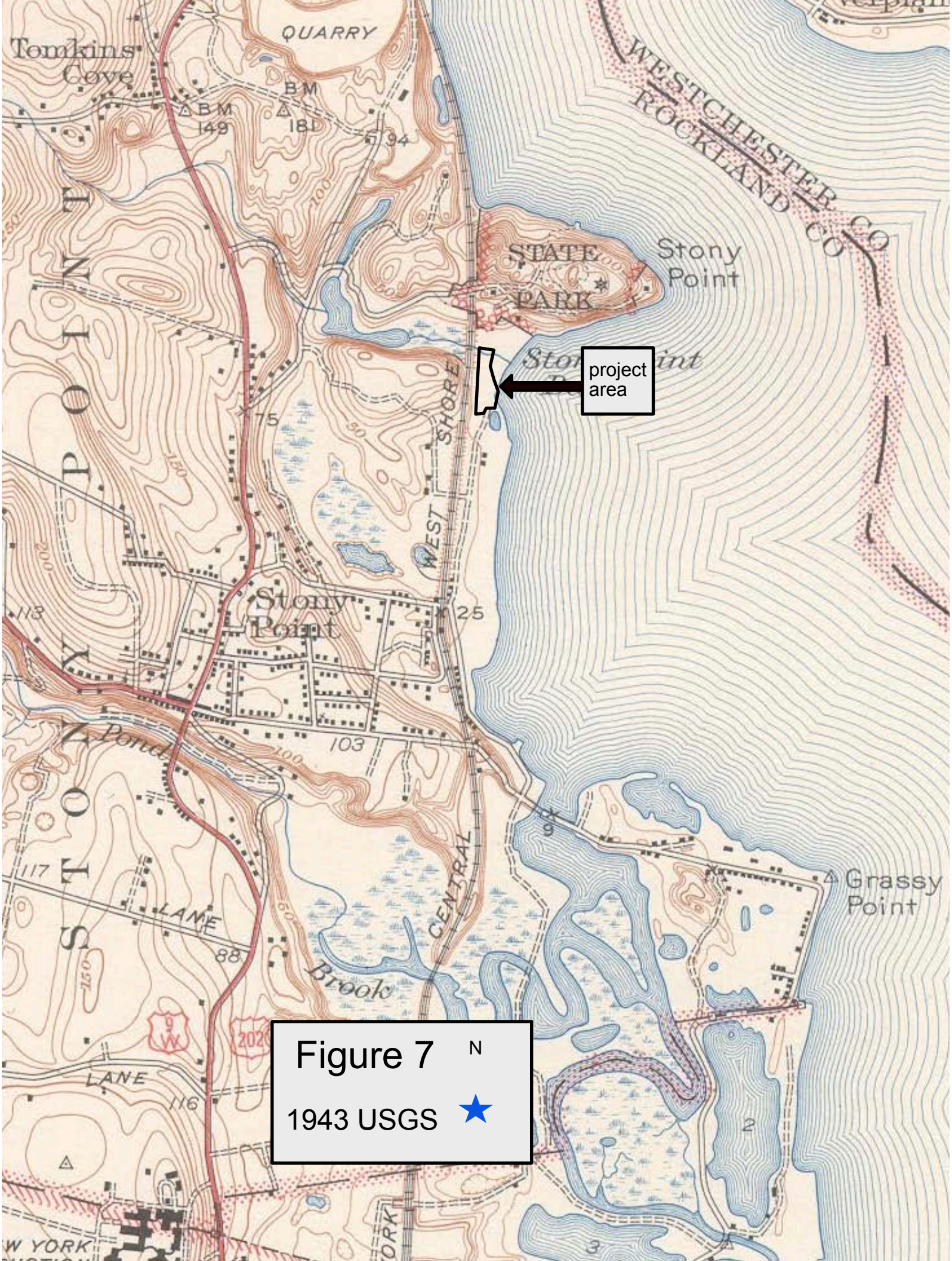


Figure 7

1943 USGS

N

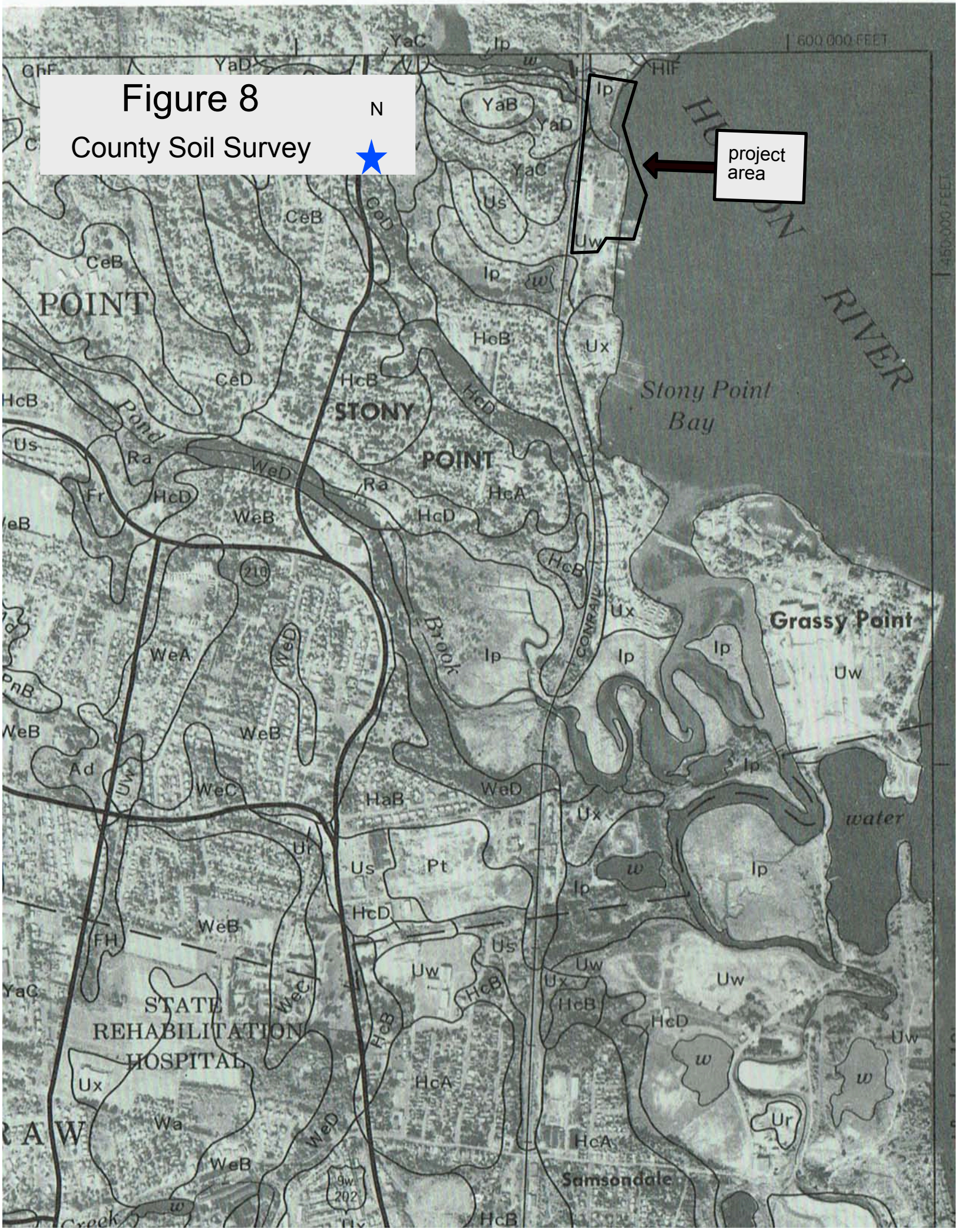


Figure 8
County Soil Survey
N
project area
600 000 FEET
450 000 FEET
HUDSON RIVER
Stony Point Bay
STONY POINT
POINT
Pond
Brook
CONRAIL
Grassy Point
water
STATE REHABILITATION HOSPITAL
Samsondale
YaC
YaD
YaB
Ip
HlF
Us
Uw
Ux
CeB
CeD
HcB
HcD
HcA
Ra
WeD
WeB
WeA
WeC
Fr
Ad
HaB
Pt
Ur
FH
Wa
w
210
9w
202

Photo 1
Looking north from near Hudson Dr.

Photo 2
Looking east from near ST 13

Photo 3
Looking at parking area for boats
Passport

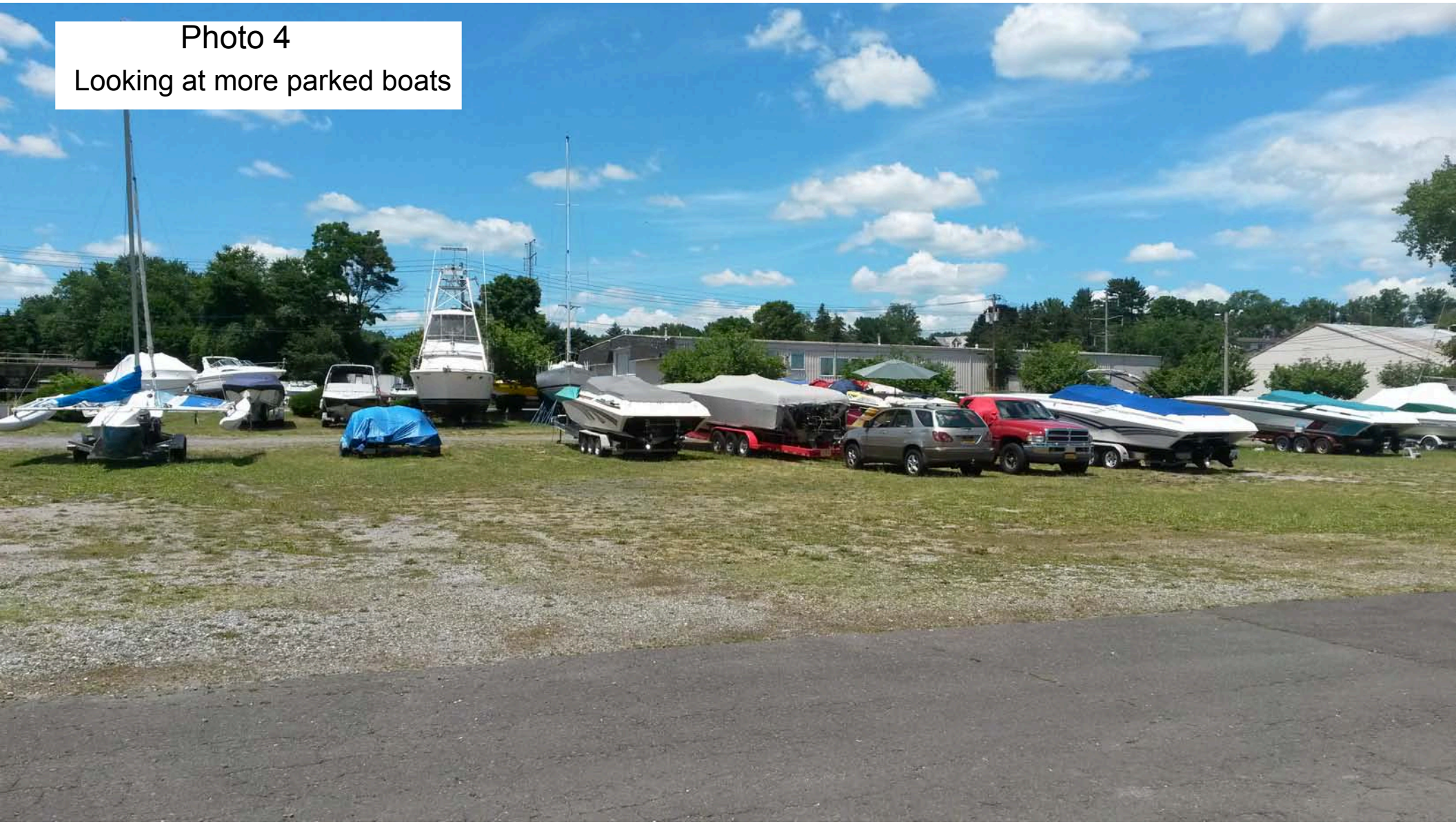


Photo 4
Looking at more parked boats

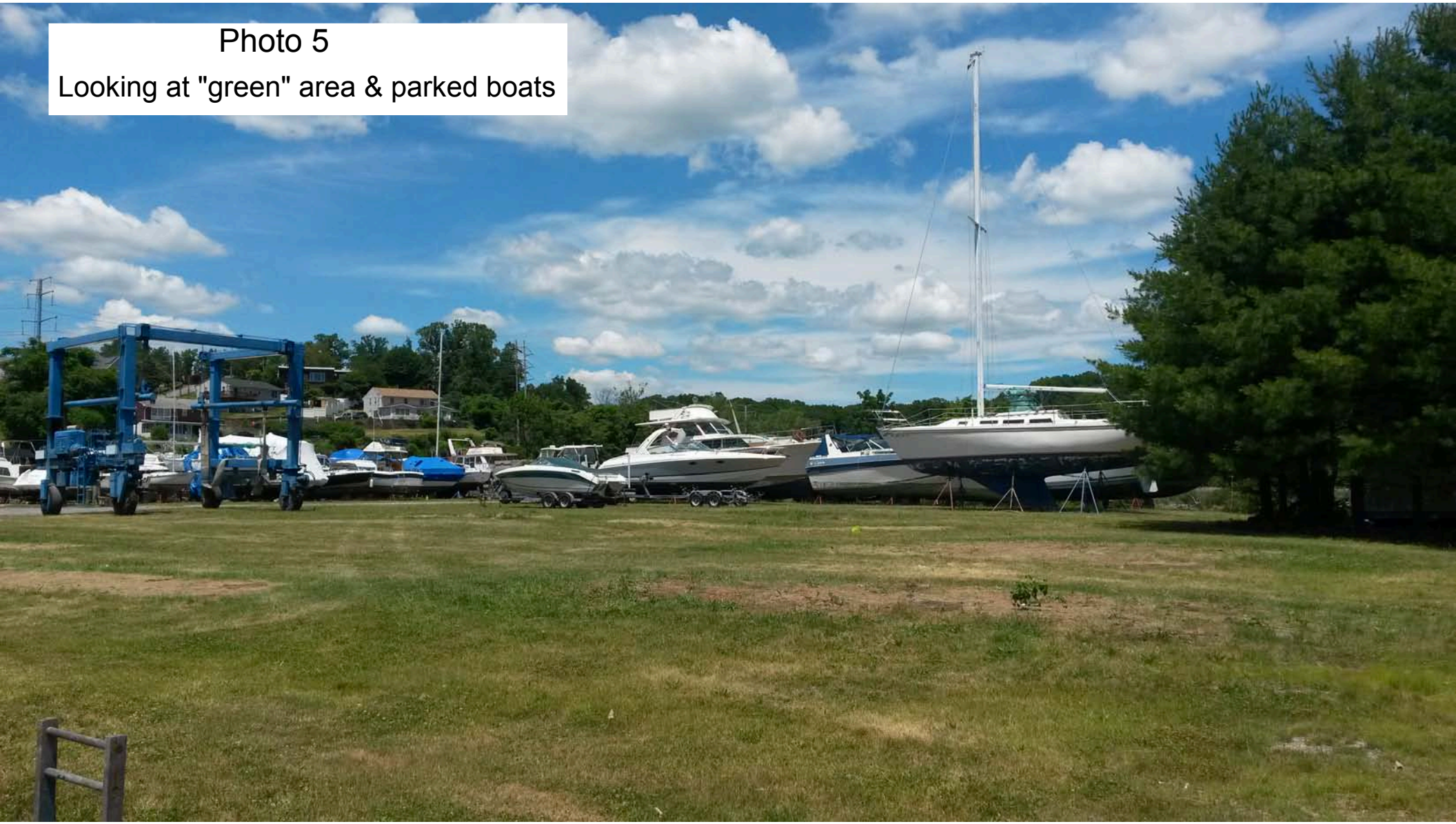


Photo 5
Looking at "green" area & parked boats

APPENDIX 2

SHOVEL TESTS

STP	LV	DEPTH(CM)	TEXTURE	COLOR	HOR	COMMENT
1	1	0-5	rootmat,leaves,humus		A/O	NCM
	2	5-16	Sa	10YR4/2-5/6	grd	mod glass,brick
	3	16-26	Sa	10YR5/6	B?	NCM
2	1	0-7	rootmat,leaves,humus		A/O	NCM
	2	7-20	Sa	10YR4/3	A?	win glass,coal
	3	20-30	Sa	10YR5/6	B?	NCM
3	1	0-8	rootmat,leaves,humus		A/O	NCM
	2	8-15	Sa	10YR4/3	A?	milkglass,brick,mod glas
	3	15-25	Sa	10YR5/6	B?	NCM
4	1	0-7	rootmat,leaves,humus		A/O	NCM
	2	7-18	Sa	10YR4/3	A?	brown stoneware
	3	18-28	Sa	10YR5/6	B?	NCM
5	1	0-7	rootmat,leaves,humus		A/O	NCM
	2	7-16	Sa	10YR4/3	A?	brick,coal,shell,modglass
	3	16-26	Sa	10YR5/6	B?	NCM
6	1	0-8	rootmat,leaves,humus		A/O	NCM
	2	8-30	Sa mottled	10YR3/2-5/1	fill	brick,wirenail,coal
	3	30-river cobbles				
7	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-25	Sa	10YR4/3	A?	NCM
	3	25-25	brick, metal bracket remains			
8	1	0-5	rootmat,leaves,humus		A/O	NCM
	2	5-21	Sa	10YR4/3	A	NCM
	3	21-31	brick, tile, coal			
9	1	0-6	rootmat,leaves,humus		A/O	NCM
	2	6-25	Sa	10YR4/2	A	brick, coal, metal,rubber
	3	25-35	Sa	10YR5/6	B	NCM
10	1	0-6	rootmat,leaves,humus		A/O	NCM
	2	6-16	Sa	10YR4/2	fill?	NCM
	3	16-26	Cl mottled	10YR5/1-5/8	?	whole brick
11	1	0-2	rootmat,leaves,humus		A/O	NCM
	2	2-18	Sa,gravel	10YR4/3	fill?	NCM
	3	18-33	Sa,gravel	10YR5/6	?	brick
12	1	0-5	rootmat,leaves,humus		A/O	NCM
	2	5-17	Sa	10YR4/3	A?	brick
	3	17-28	Sa	10YR5/6	B?	NCM

13	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-15	Sa, gravel mottled	10YR4/3-5/6	fill	concrete
	2	15-25	Sa	10YR5/6	B?	NCM
14	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-13	Sa,gravel	10YR4/3	fill	NCM
	3	13-24	Sa	10YR5/6	B?	NCM
15	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-16	Sa,gravel	10YR4/3	fill	NCM
	3	16-26	Sa	10YR5/6	B?	NCM
16	1	0-5	rootmat,leaves,humus		A/O	NCM
	2	5-17	Sa	10YR4/3	A?	brick
	3	17-27	Sa	10YR5/6	B?	NCM
17	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-15	Sa	10YR4/3	A?	NCM
	3	15-27	Sa	10YR5/6	B?	NCM
18	1	0-5	rootmat,leaves,humus		A/O	NCM
	2	5-17	Sa	10YR4/3	fill	brick,plastic,shell,metal
	2	17-28	Sa	10YR5/6	B?	NCM
19	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-16	Sa	10YR4/2	A?	mod glass,brick
	3	16-26	Sa	10YR5/6	B?	NCM
20	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-16	Lo	10YR4/3	A?	NCM
	3	16-27	Cl	10YR5/1	B?	NCM
21	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-14	Sa	10YR4/3	A?	brick, beer glass
	3	14-25	Sa	10YR5/6	B?	NCM
22	1	0-5	rootmat,leaves,humus		A/O	NCM
	2	5-18	Sa	10YR3/2	A?	NCM
	3	18-28	Sa	10YR5/6	B?	NCM
23	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-14	Sa	10YR4/2	A?	brick, shell
	3	14-24	Sa	10YR4/3	B?	NCM
24	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-32	Sa	10YR4/3	A?	brick, mod glass, plastic, aluminum
	3	32-44	Sa	10YR5/6	B?	NCM
25	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-14	Sa	10YR4/3	A?	NCM
	3	14-25	Sa	10YR5/6	B?	NCM

26	1	0-3	rootmat,leaves,humus			A/O	NCM
	2	3-25	Sa		10YR4/3	A?	plastic, mod glass
	3	25-35	Sa		10YR5/6	B?	NCM
27	1	0-3	rootmat,leaves,humus			A/O	NCM
	2	3-22	Sa	mottled	10YR4/3-5/6	grd	brick
28	1	0-3	rootmat,leaves,humus			A/O	NCM
	2	3-11	Sa	mottled	10YR4/3-5/6	A?	brick
	3	11-22	Sa		10YR5/6	B?	NCM
29	1	0-3	rootmat,leaves,humus			A/O	NCM
	3	3-10	Sa	mottled	10YR4/3-5/6	grd	brick mod glass
	2	10-29	Sa		10YR5/6	B?	NCM
30	2	0-11	Sa,mulch		10YR4/3	A?	gravel
	3	11-rock					
31	1	0-4	rootmat,leaves,humus			A/O	NCM
	2	4-22	Sa & ash		10YR4/3-5/1	A?	brick, beer glass
	3	22-33	Sa		10YR5/6	B?	NCM
32	1	0-3	rootmat,leaves,humus			A/O	NCM
	2	3-23	Sa,ash		10YR4/3-5/1	A?	clear mod glass
	3	23-33	Sa		10YR5/6	B?	NCM
33	1	0-3	rootmat,leaves,humus			A/O	NCM
	2	3-13	Sa		10YR4/3	A?	coal
	3	13-root					
34	1	0-4	rootmat,leaves,humus			A/O	NCM
	2	4-17	Sa		10YR4/3	A?	brick, mod glass
	3	17-27	Sa		10YR5/6	B?	NCM
35	1	0-3	rootmat,leaves,humus			A/O	NCM
	2	3-14	Sa		10YR4/3	A?	NCM
	3	14-24	Sa		10YR5/6	B?	NCM
36	1	0-3	rootmat,leaves,humus			A/O	NCM
	2	3-12	Sa		10YR4/3	A?	plastic, brick
	3	12-23	Sa		10YR5/6	B?	NCM
37	1	0-3	rootmat,leaves,humus			A/O	NCM
	2	3-20	Sa		10YR4/2	A?	brick
	3	20-30	Sa		10YR5/6	B?	NCM
38	1	0-2	rootmat,leaves,humus			A/O	NCM
	2	3-20	Sa		10YR4/2	A?	NCM
	3	20-30 S	a		10YR5/6	B?	NCM
39	1	0-2	rootmat,leaves,humus			A/O	NCM
	2	2-20	Sa		10YR4/2	A?	brick, shell
	3	20-30	Sa		10YR5/6	B?	NCM

40	1	0-2	rootmat,leaves,humus			A/O	NCM
	2	2-20	Sa	mottled	10YR4/3-5/6	grd	NCM
41	1	0-3	rootmat,leaves,humus			A/O	NCM
	2	3-15	Sa		10YR4/3	A?	wire nail, brick
	3	15-25	Sa		10YR5/6	B?	NCM
42	1	0-4	rootmat,leaves,humus			A/O	NCM
	2	4-25	Sa		10YR4/3	A?	brick, gravel
	3	25-35	Sa		10YR5/6	B?	NCM
43	1	0-3	rootmat,leaves,humus			A/O	NCM
	2	3-27	Sa		10YR4/3	A?	brick, mod glass, rubbish
	3	27-39	Sa		10YR5/6	B?	NCM
44	1	0-3	rootmat,leaves,humus			A/O	NCM
	2	3-28	Sa	mottled	10YR4/3-5/6	grd/fill	gravel

NEW YORK STATE OF OPPORTUNITY.
Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO
Governor

ROSE HARVEY
Commissioner

February 06, 2019

Mr. Connor McKeon
TMS Waterfront
181 Westchester Ave
Suite 409
Port Chester, NY 10573

Re: USACE
Eagle Bay Marina and Breakwater
36 Hudson Drive, Stony Point, NY 10980
19PR00809
3-3928-00061/00021-23

Dear Mr. McKeon:

Thank you for requesting the comments of the State Historic Preservation Office (SHPO). We have reviewed the project in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the National Environmental Policy Act and/or the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8).

Based upon this review, the New York SHPO has determined that no historic properties will be affected by this undertaking.

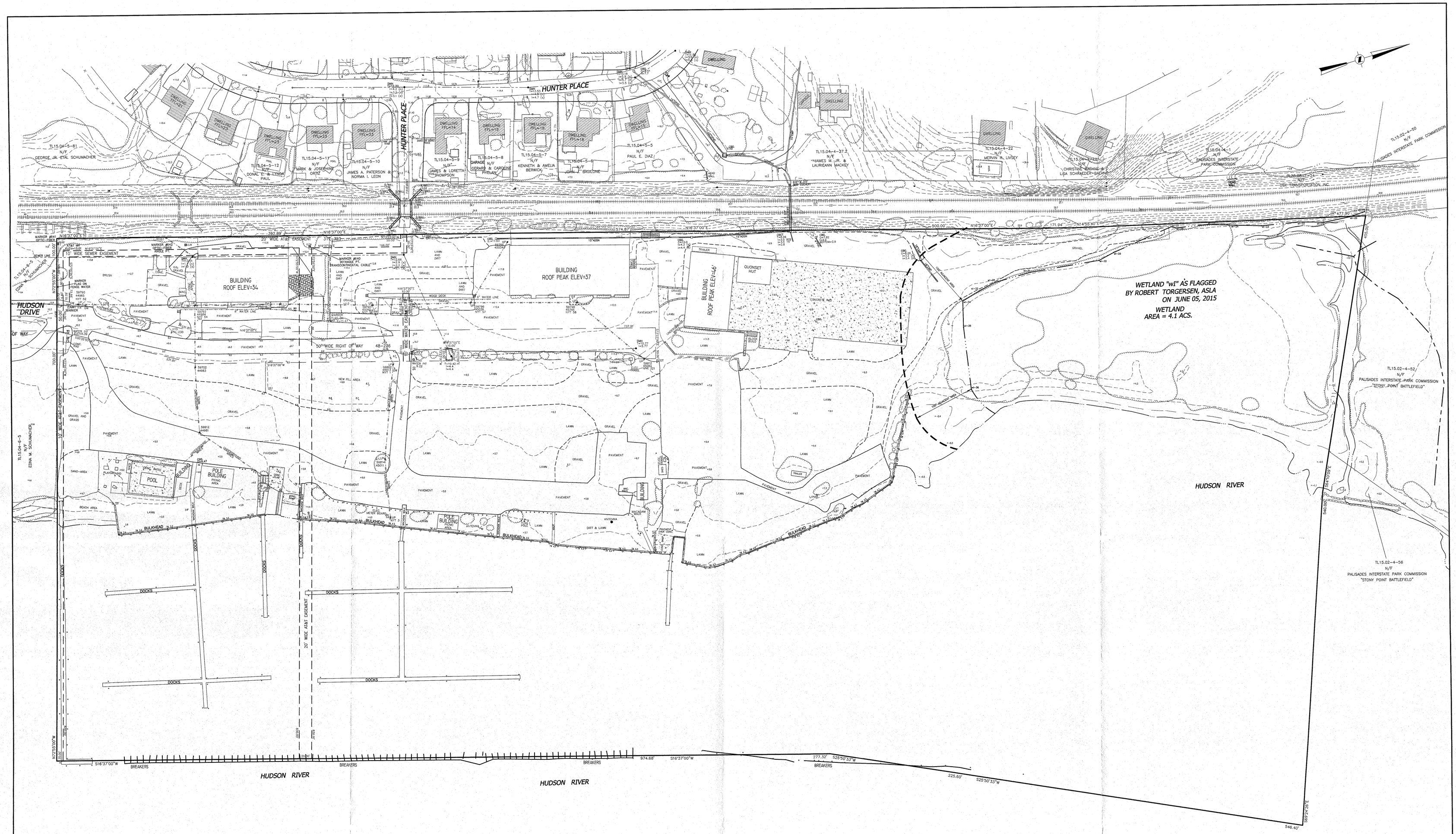
If further correspondence is required regarding this project, please be sure to refer to the OPRHP Project Review (PR) number noted above.

Sincerely,

Michael F. Lynch, P.E., AIA

Director, Division for Historic Preservation

Appendix E: Wetland Delineation Map



OWNER:

TAX LOT 15.04-6-3 STONY POINT, LLC
31 HUDSON DRIVE
STONY POINT, NEW YORK 10980

TAX LOT 15.04-6-4 LIBERTY VILLE STONY POINT, LLC
36 HUDSON DRIVE
STONY POINT, NEW YORK 10980

TAX LOT 15.04-6-6 HUDSON POINT REALITY, LLC
22 HUDSON DRIVE
STONY POINT, NEW YORK 10980

TOTAL AREA:

LOT AREA = 41.349 ACRES

NYSDEC WETLAND AREA:

AREA	"wI"	4.1 ACS.
TOTAL AREA		4.1 ACS.

NYSDEC FRESHWATER WETLAND BOUNDARY VALIDATION

The freshwater wetland boundary as represented on these plans accurately depicts the limits of freshwater Wetland H5-2 as delineated by Robert Torgersen on 05/15/15.

DEC Staff: Alexis A. Dunlop 05/25/2016 Surveyor/Engineer: [illegible]

Date Valid: 05/25/2016 Expiration Date: 05/25/2021 SEAL:

Wetland boundary delineations as validated by the New York State Department of Environmental Conservation remain valid for five (5) years unless existing exempt activities, area hydrology, or land use practices change (e.g., agricultural to residential). After five (5) years the boundary must be revalidated by DEC staff. Revalidation may include a new delineation and survey of the wetland boundary.

Any proposed construction, grading, filling, excavating, clearing or other regulated activity in the freshwater wetland or within 100 feet of the wetland boundary as depicted on this plan requires a permit from the NYS Department of Environmental Conservation under Article 24 of the Environmental Conservation Law (Freshwater Wetlands Act) prior to commencement of work.

RECEIVED
MAY 23 2016
Natural Resources
NYSDEC Region 3 - New Paltz

REVISION	DATE	DESCRIPTION

ATZL, NASHER & ZIGLER P.C.
ENGINEERS-SURVEYORS-PLANNERS
234 North Main Street
New City, New York 10956
Tel: (845) 634-4694
Fax: (845) 634-5543
P.O. Box 636
Chester, New York 10918
Tel: (845) 469-1015
Fax: (845) 469-1016
Web: ANZNY.com

PROJECT:

THE BREAKERS

TOWN OF STONY POINT
ROCKLAND COUNTY, NEW YORK

TITLE:

WETLAND MAP

DRAWN BY: VC	CHECKED BY: DMZ
DATE: JUNE 05, 2015	SCALE: 1 IN. = 50 FT.
PROJECT NO: 1407	DRAWING NO: 1

Appendix F: Planned Waterfront (PW) Zoning Code Requirements and Regulations

§ 215-92.3. Waterfront mixed-use development. [Added 3-10-2015 by L.L. No. 2-2015]

The construction of mixed-use development projects, is hereby authorized subject to the following conditions:

A. A mixed-use development site shall be serviced by public water and sewer services.

B. The following uses are authorized as part of a mixed-use development:

   (1) Multifamily residence.

   (2) One-family attached residence.

   (3) One-family detached residence.

   (4) Local convenience commercial.

   (5) Sit-down restaurants.

   (6) Local office business.

   (7) Day-care center subject to the requirements of § 215-92.

   (8) Commercial recreation, including watersports recreation.

   (9) Retail kiosks not to exceed 500 feet per kiosk.

C. A mixed-use development shall demonstrate adequate vehicular access. Internal roads may be private but must be a minimum of 24 feet wide and built to Town standards for materials and design. Emergency access to the site must be maintained during Federal Emergency Management Agency (FEMA) one-percent (one-hundred-year) storms.

D. The waterfront mixed-use development must incorporate a marina meeting the requirements as detailed in the Town Code § 215-89 and containing at least one boat slip per three residential dwelling units, although nothing shall be construed to limit the use or ownership of boat slips to residents of the site. **[Amended 7-10-2018 by L.L. No. 3-2018]**

E. The total residential density of the site shall not exceed 10 units per acre subject to § 215-16.

F. Local convenience commercial and local office business developments, as defined in § 215-5 herein, shall be permitted accessory uses and are intended to be small scale uses intended

to serve the needs of the neighborhood. The floor area of any single business shall not exceed 8,000 square feet.

G. Overall parking requirements may be reduced by up to 50% upon demonstration, to the satisfaction of the Planning Board, that uses within the development shall have offset peak demand times and that total peak demand of the site will not exceed the total number of parking spaces provided.

H. A continuous area of adequate width to support public use and enjoyment shall be provided along the Hudson River frontage. Public or private exhibition and performance spaces are permitted within this frontage, so long as they available to the general public (but not precluding charged admission) during normal daytime hours. Retail kiosks not exceeding 500 square feet are permitted uses within the frontage so long as they meet all applicable Town requirements regarding peddling and solicitation if located on public property. The applicant shall provide the Town with public access easements or fee title to such frontage area. This area may be located within the area prescribed for Hudson River setbacks by § 215-27 and shall not be deemed to be additive to those requirements. Nothing herein shall be construed to countermand the requirements to secure the interconnection of piers, slips, docks and other elements of a working marina with the shoreline and driveways, pathways and other access features are permitted, so long as they do not significantly interfere with public use.

I. Architectural review of all permanent non-marina structures is required.

J. At least 50 square feet of floor area per residential dwelling unit shall be provided for those nonresidential uses listed in § 215-92.2B.

K. Consistent with sound waterfront planning for rising sea levels and increasing storm severity, the height requirement for buildings proposed as part of waterfront mixed-use developments shall be measured from the higher of existing grade or two feet above the base flood elevation for the one-percent storm as shown on the most up-to-date FEMA Flood Insurance Rate Map (FIRM) or advisory base flood elevations if they have been adopted by the Town as part of the Flood Damage Protection Chapter.[1] Additionally, the Planning Board should work with the applicant to make the proposed development more adaptive to future

1. **Editor's Note: See Ch. 112, Flood Damage Prevention.**

increases in flood elevations, including but not limited to incorporating such measures as infrastructure for the placement of deployable flood walls, dry floodproofing, wet floodproofing, installing utility infrastructure above flood elevations, and incorporating measures to allow for raising building first floor elevations in the future.

Appendix G: AT&T Easement Deed

1407 AT&T EASEMENT

Liber 823 page 1018

Received of the AMERICAN TELEPHONE AND TELEGRAPH 16809
400 Hamilton Avenue, White Plains, New York
COMPANY ONE ($1.00) and NO/100 Dollars, in consideration of which the undersigned hereby grant and convey unto said company, its associated and allied companies, its and their respective successors, assigns, lessees and agents, a right of way and easement to construct, operate, maintain, replace and remove communication systems as the grantees may from time to time require, consisting of underground cables, wires, donduits, manholes, and repeaters, surface testing-terminals and markers, and other appurtenances, upon, over and under a strip of land twenty feet wide across the land which the undersigned own or in which the undersigned have any interest in a parcel of land containing 6.5 acres, more or less, and designated as Parcel #30 on Map #17 of the Stony Point Tax Maps, also described in Book 446 of Deeds at Page 598, situate in the Town of Stony Point, County of Rockland and State of New York, together with the following rights: Of ingress and egress along said strip for the purpose of exercising the rights herein granted; to clear and keep cleared all trees, roots, brush and other obstructions from the surface and subsurface of and above said strip and, during initial construction only, within fifteen feet thereof; and to install gates in any fences crossing said strip. The first cable shall be laid in the center of said twenty foot strip and shall have its location indicated upon surface markers set at intervals on the twenty foot strip of land. The undersigned for themselves, their heirs, executors, administrators, successors and assigns, hereby covenant that no structure shall be erected or permitted on said strip. The grantees agree to

I. R. 5.55

pay for damage to fences and growing crops arising from the construction and maintenance of the aforesaid systems.

Signed and sealed this 1 day of February, 1967, at [illegible]

Witness:

[illegible] Vincent P. Altomonte (Seal)
Vincent P. Altomonte
137 South Liberty Drive,
Stony Point, New York

[illegible] Helen Marie Altomonte (Seal)
Helen Marie Altomonte
137 South Liberty Drive,
Stony Point, New York

STATE OF NEW YORK
COUNTY OF [illegible] } ss.

On the 1 day of February, 1967, before me personally came Vincent P. Altomonte and Helen Marie Altomonte, his wife, to me known to be the persons described in and who executed the foregoing instrument, and acknowledge that they executed the same.

[illegible]
Signature
VINCENT P. HUMLEY
Notary Public, State of New York
41-1905250
Qualified in Rockland County
Term Expires March 30, 1967
Title

RECORDED MAR 23 1967 10:50 A.M.
[illegible], CLERK

LIBER 823 PAGE 1019

LIBER 823 PAGE 1020

PAGE 18
REV. 9-64

RELEASE OF RIGHT OF WAY AND EASEMENT FROM MORTGAGE

16809

Received of Northern Telephone and Telegraph Company
400 Hamilton Avenue, White Plains, New York
One Dollar ($1.00), in consideration of which the undersigned, owner and holder of a mortgage recorded in Book 881 Page 80
of the land mortgage records of the County of Rockland, and State of New York
covering premises situated in the Town of Stony Point, County of Rockland
and State of New York

hereby releases and quitclaims unto American Telephone and Telegraph Company
its associated and allied companies, its and their respective successors and assigns, the right of way and easement acquired under a grant executed
by Vincent P. and Helen Marie Alfomonte
dated the 8th day of February, 19 67, from all lien and claim under the said mortgage.

Signed and sealed this 3rd day of March, 19 67, at Stony Point, New York

Witness: Milton D. Baum

Elinor D. J. Allison (Seal)
Elinor D. J. Allison (Seal)
(Seal)
(Seal)

STATE OF NEW YORK)
COUNTY OF Rockland) ss.

On the 3rd day of March, 1967, before me personally came Elinor D. J. Allison to me known to be the person described in and who executed the foregoing instrument, and acknowledged that she executed the same.

Milton D. Baum
Signature
Notary Public, State of New York
Residing in Rockland County
Commission expires March 30, 1967.
Title

MAR 23 1967

Record and Return to
LEXOW & JENKINS
56 Park Avenue
Suffern, New York 10901

Liber 823 Page 1021 RECORDED MAR 23 1967 10:50 A.M.
CLERK

Appendix H: Stony Point Battlefield and Lighthouse Historic Information

NEW YORK STATE OF OPPORTUNITY. | Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO
Governor

ROSE HARVEY
Commissioner

November 9, 2016

Ms. Donna Holmqvist
Atzl, Nasher & Zigler
234 North Main Street
New City, NY 10956

Re: USACE
The Breakers
31 Hudson Drive, Stony Point, NY
16PR06475

Dear Ms. Holmqvist:

Thank you continuing to consult with the New York State Historic Preservation Office (SHPO). We have reviewed the provided documentation in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/Cultural resources.

We have received your recent submission dated October 18, 2016 for The Breakers housing development project. This submission includes visual impact studies that address potential impacts of the proposed new construction to the National Register listed Stony Point Battlefield State Historic Site.

Based on this review, and the visual impact studies, it is the opinion of the SHPO that the proposed project will have No Adverse Effect upon the historic Stony Point Battlefield.

If you have any questions, I can be reached at (518) 268-2164.

Sincerely,

Weston Davey
Historic Site Restoration Coordinator
weston.davey@parks.ny.gov

via e-mail only

CC: Brian Orzel, USACE

BUILDING-STRUCTURE INVENTORY FORM

DIVISION FOR HISTORIC PRESERVATION
NEW YORK STATE PARKS AND RECREATION
ALBANY, NEW YORK (518) 474-0479

FOR OFFICE USE ONLY
UNIQUE SITE NO. NR0871-05-0036 32
QUAD Haverstraw
SERIES 18 | 586560 | 4548480
NEG. NO.

YOUR NAME: Elise Marie Barry DATE: 2/26/79

YOUR ADDRESS: 143 Garth Rd., Apt. 5-B Scarsdale, N.Y. 10583 TELEPHONE: 914-723-1061

ORGANIZATION (if any):

MAR 12 1979

* *

IDENTIFICATION

1. BUILDING NAME(S): Stony Point Lighthouse
2. COUNTY: Rockland TOWN/CITY: Stony Point VILLAGE:
3. STREET LOCATION: Stony Point Battlefield
4. OWNERSHIP: a. public ☒ b. private ☐
5. PRESENT OWNER: see continuation sheet ADDRESS: see continuation sheet
6. USE: Original: lighthouse Present: none
7. ACCESSIBILITY TO PUBLIC: Exterior visible from public road: Yes ☐ No ☒
   Interior accessible: Explain: yes, restricted

DESCRIPTION

8. BUILDING MATERIAL: a. clapboard ☐ b. stone ☒ c. brick ☐ d. board and batten ☐ e. cobblestone ☐ f. shingles ☐ g. stucco ☐ other:
9. STRUCTURAL SYSTEM (if known): a. wood frame with interlocking joints ☐ b. wood frame with light members ☐ c. masonry load bearing walls ☒ d. metal (explain) e. other
10. CONDITION: a. excellent ☐ b. good ☒ c. fair ☐ d. deteriorated ☐
11. INTEGRITY: a. original site ☒ b. moved ☐ if so, when?
    c. list major alterations and dates (if known):
    1860's - Cellar entrance added, removed by 1900's.
    Wood frame bell tower at site, removed by 1900.
    Small window in west facade, moved to east facade by 1880.
    1880's - Second bell tower built, removed by 1900's.

12. PHOTO:

13. MAP:

14. THREATS TO BUILDING: a. none known ☒ b. zoning ☐ c. roads ☐
d. developers ☐ e. deterioration ☐
f. other: _____

15. RELATED OUTBUILDINGS AND PROPERTY:
a. barn ☐ b. carriage house ☐ c. garage ☐
d. privy ☐ e. shed ☐ f. greenhouse ☐
g. shop ☐ h. gardens ☐
i. landscape features: _____
j. other: none

16. SURROUNDINGS OF THE BUILDING (check more than one if necessary):
a. open land ☒ b. woodland ☒
c. scattered buildings ☐
d. densely built-up ☐ e. commercial ☐
f. industrial ☐ g. residential ☐
h. other: situated on west shore of Hudson, in a park

17. INTERRELATIONSHIP OF BUILDING AND SURROUNDINGS:
(Indicate if building or structure is in an historic district)
The Stony Point Lighthouse is set on a promontory overlooking the Hudson River. It is about six hundred feet from the water. A few park buildings are located within the battlefield area but not immediately around the lighthouse.

18. OTHER NOTABLE FEATURES OF BUILDING AND SITE (including interior features if known):
The Stony Point Lighthouse is an octagonal tower with walls two feet thick. Its diameter measures fourteen feet-six inches at its base. It tapers to thirteen feet-six inches just under the lantern deck. The tower consists of a cellar, two floors and a lantern room. A stairway led from the first floor to the second and a ladder connected the second floor with the lantern

(see continuation sheet)

SIGNIFICANCE

19. DATE OF INITIAL CONSTRUCTION: 1825

ARCHITECT: unknown

BUILDER: unknown

20. HISTORICAL AND ARCHITECTURAL IMPORTANCE:
The Stony Point Lighthouse was completed in 1825 and is the last of the beacon/towers standing in the Hudson Valley. The whitewashed fieldstone structure stands on a mound of earth about one hundred fifty feet above the water and six hundred feet from the waters edge, on the western shore of the Hudson. The general condition of the lighthouse is very good. It has been part of the Stony Point Battlefield Historic Site since 1946. When the lighthouse was in service, the keeper lived in a dwelling located about one hundred feet from the tower. In 1925 a new keeper's dwelling was built down by the waters edge, at the site of the new light tower and fog bell. The old keeper's house was torn down and the light was deactivated in the stone tower. The boundaries of the nomination include the site of the nineteenth-century lighthouse keeper's dwelling.

21. SOURCES:
Hudson River Lighthouses Thematic Group, Research File, New York State Division of Historic Preservation, Albany, New York: 1979.
Lighthouse plans of Stony Point, U.S.Coast Guard, Ocean Engineering, Drafting Dept., Governor's Island, New York.

22. THEME:
Maritime History
Architecture
Transportation

5. Present Owner:
Palisades Interstate Parks Commission
Bear Mountain State Park
Bear Mountain, New York

18. room. The entrance, a small window at the second level directly above it, and a window to the left of the doorway at the ground level are the only openings in the structure. The window on the second level was located on the opposite wall, but was repositioned over the entrance on the east facade by 1879. An exterior entrance to the cellar was added to the building in the 1860's but was removed by the early 1900's, as evident in a photograph from that time.

In a survey map of the early 1860's, a wood frame bell tower was shown near the light tower, but by the one hundreth anniversary of the battle of Stony Point in 1879 the bell tower had been removed. A frame for the bell was constructed of light iron rods cantilevered from the front facade and the bell was moved to the stone tower. When the bell and its supports were taken down is not known, but by the late 1880's a new wood frame bell tower is believed to have been built according to a plan from the U.S.Coast Guard dated 1889. An early 1900's photograph shows no signs of this second bell tower, or the bell over the entrance to the tower so both were removed before this time.

HUDSON RIVER LIGHTHOUSES THEMATIC GROUP
STONY POINT LIGHTHOUSE
ROCKLAND CO., N.Y.
PLANS and SECTION OF LIGHTHOUSE
DATED MAY 1866

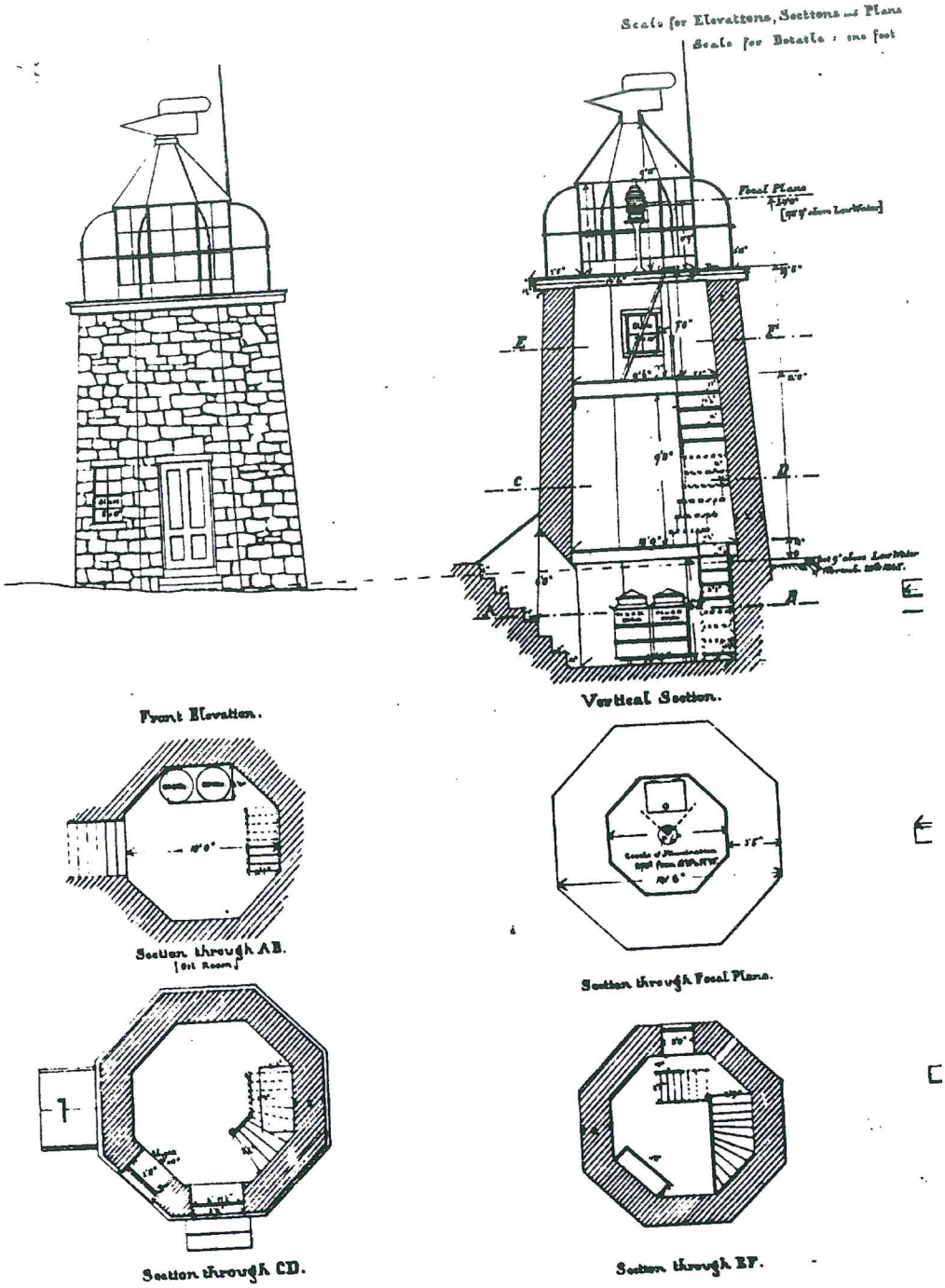
U. S. LIGHT HOUSE ESTABLISHMENT

SHEET : 2

STONY POINT

LIGHT HOUSE

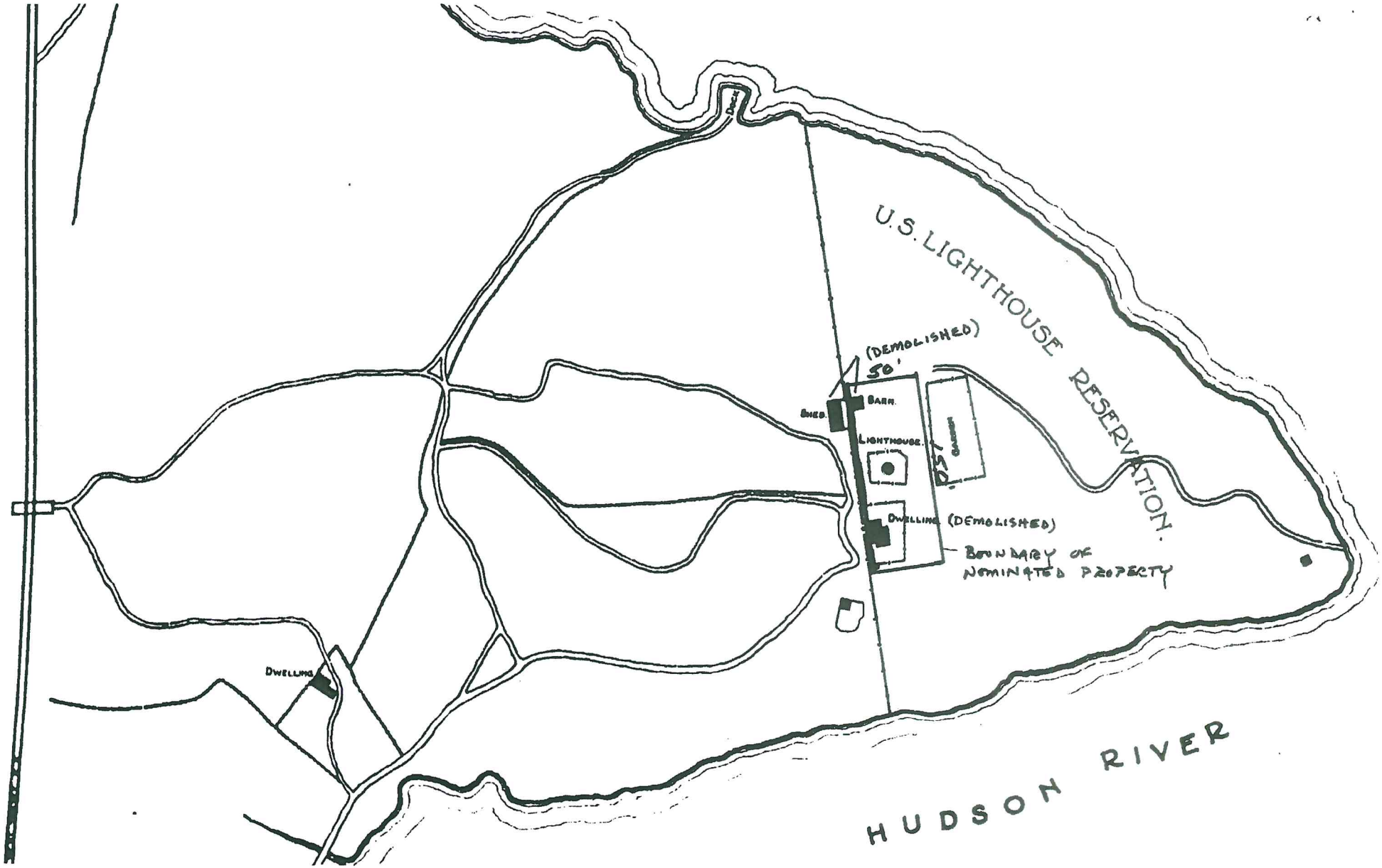
HUDSON RIVER.



HUDSON RIVER LIGHTHOUSES THEMATIC GROUP
STONY POINT LIGHTHOUSE
ROCKLAND CO.N.Y.
LOCATION MAP

BATTLEFIELD OF STONY POINT, N.Y.

COPY OF SURVEY MADE BY ORDER OF
COLONEL A.S.MILLS
SUPERINTENDENT, MILITARY ACADEMY, WEST POINT, N.Y.
SCALE ~ 1IN = 100FT.



HUDSON RIVER LIGHTHOUSES THEMATIC GROUP
STONY POINT LIGHT
ROCKLAND COUNTY, NEW YORK

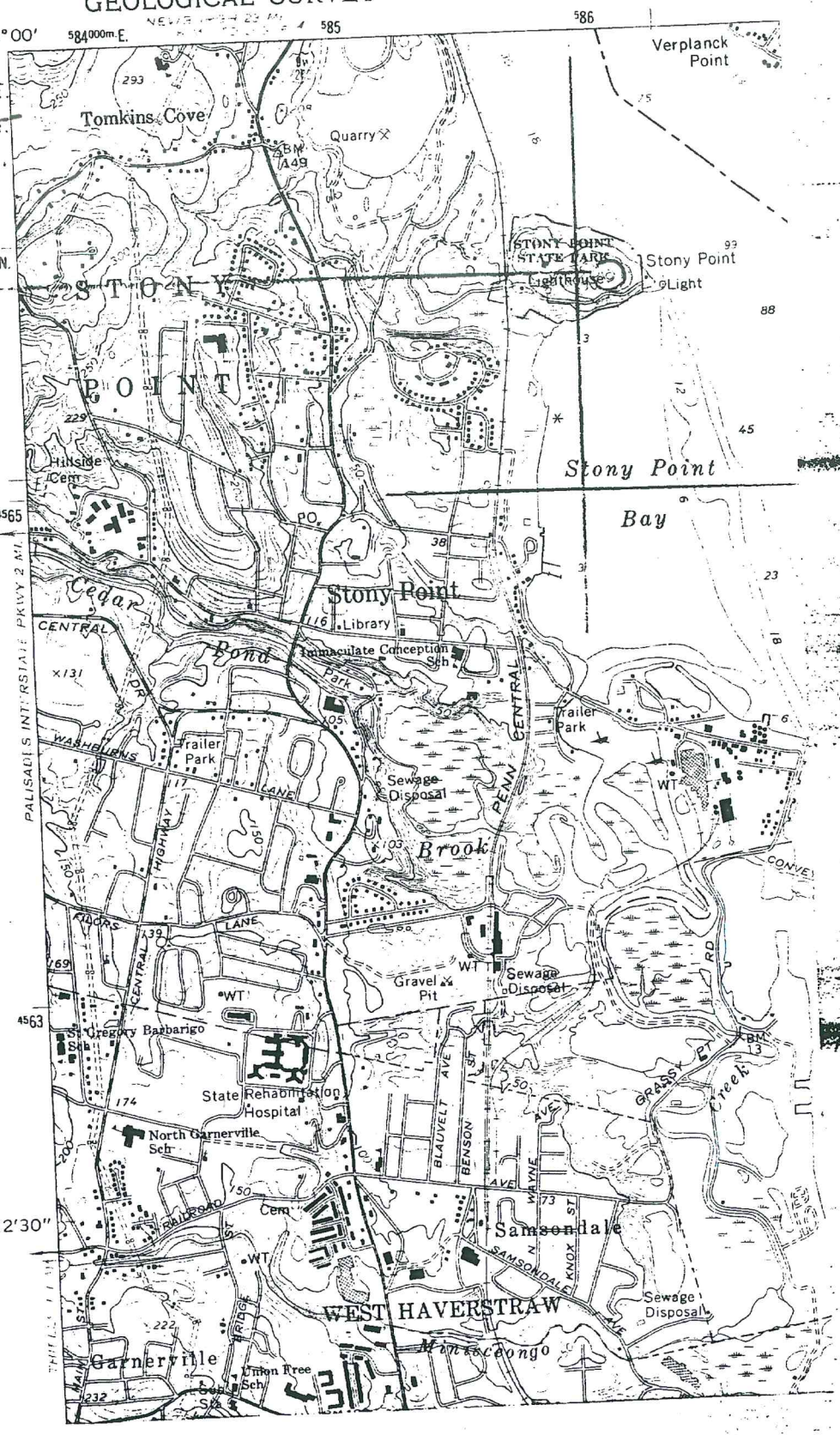
View from northwest

Detail of lantern

6166 I SE
(POPOLOPEN LAKE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

STONY POINT LTHSE
TOWN OF STONY POINT
ROCKLAND CO NY
E - 5-6-500
N - 4154-430
HAVERSTRAW QUAD



Form 10-317
(Sept. 1957)

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

Copy of original NHL Study Form

NATIONAL SURVEY OF HISTORIC SITES AND BUILDINGS

1. STATE: New York

2. THEME(S). IF ARCHEOLOGICAL SITE, WRITE "ARCH" BEFORE THEME NO.: X, The War of the Revolution

3. NAME(S) OF SITE: Stony Point Battlefield Reservation, New York

4. APPROX. ACREAGE: 45

5. EXACT LOCATION (*County, township, roads, etc. If difficult to find, sketch on Supplementary Sheet*) Rockland County, on U. S. Highway 9W and 202 north of community of Stony Point, New York

6. NAME AND ADDRESS OF PRESENT OWNER (*Also administrator if different from owner*) State of New York, administered by State Conservation Department in cooperation with the American Scenic and Historic (cont'd.)

7. IMPORTANCE AND DESCRIPTION (*Describe briefly what makes site important and what remains are extant*)

The small scale battle of Stony Point, July 16, 1779, was the last military action of any consequence in the northern theater of war. Although the battle has been dismissed by some historians as having significance only as a morale builder for the patriots and as a demonstration of the developing skill of the American Army, it did have more important consequences. A recent study has noted that "the assault paralyzed Clinton [the British Commander]. When his reinforcements failed to show up, he dared not, after his loss in men in Connecticut and at the Point [Stony Point] make an offensive move . . ."* By the action at Stony Point, Washington asserted his grip on the Hudson and especially on West Point, "the key to the Continent."

The battle of Stony Point came after a long period of stalemate in the north following the battle of Monmouth in June 1778. At the beginning of June 1779, the British had taken without opposition the unfinished American fort at Stony Point, a few miles below West Point. Verplanck's Point on the east side of the river opposite Stony Point was captured at the same time. Stony Point was a steep promontory jutting a half mile into the Hudson and rising 150 feet above the water which all but surrounded it. Having secured this strong position, Clinton pushed the fortifications to completion and manned them with a garrison of some 600 men. Washington was greatly concerned over the loss of the two strong points on either side of the river and after a thorough reconnaissance of the fort, ordered "Mad Anthony" Wayne to regain Stony Point. On July 15, Wayne made his approach, and at about midnight his elite corps launched its assault with muskets unloaded and with orders to use the bayonet. Within twenty minutes the fort had been secured and its surprised garrison made prisoner. Washington concluded that the post could not be held by his troop and ordered the fortifications dismantled and abandoned. The British occupied Stony Point but not (cont'd.

* George F. Scheer and Hugh F. Rankin, Rebels and Redcoats (Cleveland, 1957), 364.

8. BIBLIOGRAPHICAL REFERENCES (*Give best sources; give location of manuscripts and rare works*)

Henry P. Johnston, The Storming of Stony Point (New York, 1900); George F. Scheer and Hugh F. Rankin Rebels and Redcoats (Cleveland, 1957); Christopher War, The War of the Revolution, 2 vols. (New York, 1952), I.

9. REPORTS AND STUDIES (*Mention best reports and studies, as, NPS study, HABS, etc.*)

10. PHOTOGRAPHS*	11. CONDITION	12. PRESENT USE (*Museum, farm, etc.*)	13. DATE OF VISIT
ATTACHED: YES [XX] NO [ ]	Good	State reservation	April 21, 1960

14. NAME OF RECORDER (*Signature*)	15. TITLE	16. DATE
Charles E. Shedd, Jr.	Historic Sites Historian	July 15, 1960

* DRY MOUNT ON AN 8 X 10½ SHEET OF FAIRLY HEAVY PAPER. IDENTIFY BY VIEW AND NAME OF THE SITE, DATE OF PHOTOGRAPH, AND NAME OF PHOTOGRAPHER. GIVE LOCATION OF NEGATIVE. IF ATTACHED, ENCLOSE IN PROPER NEGATIVE ENVELOPES.

(IF ADDITIONAL SPACE IS NEEDED USE SUPPLEMENTARY SHEET, 10-317a, AND REFER TO ITEM NUMBER)

U. S. GOVERNMENT PRINTING OFFICE 16—74016-1

Form 10-317a
(Sept. 1957)

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL SURVEY OF HISTORIC SITES AND BUILDINGS
SUPPLEMENTARY SHEET

This sheet is to be used for giving additional information or comments, for more space for any item on the regular form, and for recording pertinent data from future studies, visitations, etc. Be brief, but use as many Supplement Sheets as necessary. When items are continued they should be listed, if possible, in numerical order of the items. All information given should be headed by the item number, its name, and the word (cont'd), as, 6. Description and Importance (cont'd) . . .

STATE	NAME(S) OF SITE
New York	Stony Point Battlefield Reservation

6. Name and Address of Present Owner (cont'd.)
Preservation Society.

7. Importance and Description (cont'd.)
in sufficient strength ever again to threaten the American stronghold at West Point.

Features and Condition of Site

Stony Point Battlefield is preserved in a 45-acre State reservation. There are extensive earthwork remains, and historical markers trace the course of the American assault up the steep slopes into the fort. A small museum administered by the American Scenic and Historic Preservation Society contains relics of the battle and tells the story of the action. The Point is heavily wooded but foot trails give access to the important points of interest. A spectacular view of the Hudson River Valley may be had from the summit of the Point.

U. S. GOVERNMENT PRINTING OFFICE 16—74029-1

Form No. 10-300 (Rev. 10-74) THEME: War for Independence

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

FOR NPS USE ONLY
RECEIVED
DATE ENTERED

SEE INSTRUCTIONS IN *HOW TO COMPLETE NATIONAL REGISTER FORMS*
TYPE ALL ENTRIES -- COMPLETE APPLICABLE SECTIONS

1 NAME

HISTORIC: Stony Point Battlefield

AND/OR COMMON: Stony Point Battlefield Reservation

2 LOCATION

STREET & NUMBER: the intersection of U.S. 9W and 202

__NOT FOR PUBLICATION

CITY, TOWN: Stony Point X VICINITY OF

CONGRESSIONAL DISTRICT: 26th

STATE: New York CODE: 36

COUNTY: Rockland CODE: 87

3 CLASSIFICATION

CATEGORY	OWNERSHIP	STATUS	PRESENT USE	
__DISTRICT	__PUBLIC	X OCCUPIED	__AGRICULTURE	__MUSEUM
__BUILDING(S)	__PRIVATE	__UNOCCUPIED	__COMMERCIAL	X PARK
__STRUCTURE	X BOTH	__WORK IN PROGRESS	__EDUCATIONAL	X PRIVATE RESIDENCE
X SITE	**PUBLIC ACQUISITION**	**ACCESSIBLE**	__ENTERTAINMENT	__RELIGIOUS
__OBJECT	__IN PROCESS	__YES: RESTRICTED	X GOVERNMENT	__SCIENTIFIC
	__BEING CONSIDERED	X YES: UNRESTRICTED	__INDUSTRIAL	__TRANSPORTATION
		X NO	__MILITARY	__OTHER:

4 OWNER OF PROPERTY --Continued

NAME: State of New York, Palisades Interstate Park Commission

STREET & NUMBER: Bear Mountain State Park

CITY, TOWN: Bear Mountain __ VICINITY OF

STATE: New York

5 LOCATION OF LEGAL DESCRIPTION

COURTHOUSE, REGISTRY OF DEEDS, ETC.: Rockland County Courthouse

STREET & NUMBER:

CITY, TOWN: New City

STATE: New York

6 REPRESENTATION IN EXISTING SURVEYS

TITLE: None

DATE:

__FEDERAL __STATE __COUNTY __LOCAL

DEPOSITORY FOR SURVEY RECORDS:

CITY, TOWN:

STATE:

7 DESCRIPTION

CONDITION		CHECK ONE	CHECK ONE
__EXCELLENT	__DETERIORATED	__UNALTERED	XX ORIGINAL SITE
X GOOD	__RUINS	X ALTERED	__MOVED DATE_____
__FAIR	__UNEXPOSED		

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

Stony Point is a roughly triangular promontory roughly 150' high which juts into the Hudson River across the river and just below Peekskill, New York. This steep and rocky hill was at the time of the battle, surrounded by water on all sides but the west, where a swampy area all but severed the Point from dry land. The swamp to the west has been drained largely, with only a shallow ravine and a small pond, stream, and marshy area to the southwest indicating the former condition. The British positions on the Point consisted of an abatis which stretched across the promontory just east of where the railroad track is now laid, three redoubts to the west of this, another abatis to the east of which were six additional redoubts arranged circularly around the partially completed main fort, an irregular starshaped earthwork. Following the battle, these works were destroyed.

The condition of Stony Point today is relatively unchanged from that of two hundred years ago. A state park occupies the fortified portion of the Point, and the general outlines of the redoubts and the fort can be partially traced by the contours in the ground. A lighthouse maintained by the Coast Guard, occupies the eastern tip of the Point, and an historical museum is located between the sites of the first and second abatis. Pathways have been laid throughout the park, and various stone seats and a small pavilion have been erected as well. There is a latrine and a caretaker's house located within the park as well. There are markers indicating the sites of the redoubts and the points of the American assault. Aside from the summit of Stony Point, the sides of the hill are thickly overgrown with trees and underbrush. The view from the Point surveys the several industrial developments along the banks of the Hudson.

To the west of the park, the Penn Central right-of-way runs the width of the Point and to the west of it, are four private houses, all of which postdate the battle. A dirt road leading off the main road to the park appears to follow the route of the historic causeway. The rest of the western portion of the Point is heavily wooded. It is likely that this area had been cleared by the British at the time of the battle. The location of the present bridge over the swamp closely approximates that of the "mud bridge" at the time of the battle.

8 SIGNIFICANCE

PERIOD	AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW			
__PREHISTORIC	__ARCHEOLOGY-PREHISTORIC	__COMMUNITY PLANNING	__LANDSCAPE ARCHITECTURE	__RELIGION
__1400-1499	__ARCHEOLOGY-HISTORIC	__CONSERVATION	__LAW	__SCIENCE
__1500-1599	__AGRICULTURE	__ECONOMICS	__LITERATURE	__SCULPTURE
__1600-1699	__ARCHITECTURE	__EDUCATION	X MILITARY	__SOCIAL/HUMANITARIAN
X 1700-1799	__ART	__ENGINEERING	__MUSIC	__THEATER
__1800-1899	__COMMERCE	__EXPLORATION/SETTLEMENT	__PHILOSOPHY	__TRANSPORTATION
__1900-	__COMMUNICATIONS	__INDUSTRY	__POLITICS/GOVERNMENT	__OTHER (SPECIFY)
		__INVENTION		

SPECIFIC DATES July 16, 1779 BUILDER/ARCHITECT

STATEMENT OF SIGNIFICANCE

The Battle of Stony Point, July 16, 1979, was the last military action of any consequence in the northern theater of war during the American Revolution. Although the battle has been dismissed by some historians as having significance only as a morale builder for the patriots and as demonstration of the developing skill of the American Army, it did have more important consequences. A recent study has noted that "The assault paralyzed Clinton (the British Commander). When his reinforcements failed to show up, he dared not, after his loss in men in Connecticut and at the Point (Stony Point), make an offensive move . . . ."[1] By the action at Stony Point, Gen. George Washington asserted his grip on the Hudson and especially on West Point, "the key to the Continent."

Stony Point Battlefield is preserved partially in a 45-acre State reservation. There are extensive earthwork remains, and historical markers trace the course of the American assault up the steep slopes into the fort. A small museum administered by the Palisades Interstate Park Commission contains relics of the battle and tells the story of the action. This property, owned by the State of New York, is located just east of State Route 9W, at Stony Point, New York, The rest of the battlefield is in private ownership.

HISTORY

The Battle of Stony Point came after a long period of stalemate in the north following the Battle of Mommouth in June, 1778. At the beginning of June, 1779, the British had taken without opposition the unfinished American fort at Stony Point, a few miles below West Point. Verplanck's Point on the east side of the river opposite Stony Point was captured at the same time. Stony Point was a steep promontory jutting a half mile into the Hudson and rising 150 feet above the water which all but surrounded it. Having secured this strong position, Clinton pushed the fortifications to completion and manned them with a garrison of some 600 men. Gen. George Washington was greatly concerned over the loss of the two American strong points on either side of the river, between which a key ferry had been

[1] George Scheer and Hugh Rankin, Rebels and Redcoats (Cleveland, 1957) p. 364.

(Continued)

9 MAJOR BIBLIOGRAPHICAL REFERENCES

Henry P. Johnston, The Storming of Stony Point (New York, 1900).
George F. Scheer and Hugh Rankin, Rebels and Redcoats (Cleveland, 1957).
Charles Shedd, "Stony Point Battlefield," National Survey of Historic Sites and Buildings form 10-317, 7/15/60.
Christopher Ward, The War of the Revolution 2 vols. (New York, 1952) vol. 2.

10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY 137 acres

UTM REFERENCES

	ZONE	EASTING	NORTHING
A	18	587000	4566410
B	18	587000	4565470
C	18	585000	4565470
D	18	585000	4566420

VERBAL BOUNDARY DESCRIPTION

(See Continuation Sheet)

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE	CODE	COUNTY	CODE
STATE	CODE	COUNTY	CODE

11 FORM PREPARED BY

NAME / TITLE
Richard Greenwood, Historian, Landmark Review Task Force

ORGANIZATION
Historic Sites Survey, National Park Service

DATE
12/12/75

STREET & NUMBER
1100 L Street NW.

TELEPHONE
202-523-5464

CITY OR TOWN
Washington

STATE
D.C. 20240

12 STATE HISTORIC PRESERVATION OFFICER CERTIFICATION

THE EVALUATED SIGNIFICANCE OF THIS PROPERTY WITHIN THE STATE IS:

NATIONAL ___ STATE ___ LOCAL ___

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

Landmark Designated: JAN 20 1996
date

Recorded by Certified: Jan. 11, 1979
date

STATE HISTORIC PRESERVATION OFFICER SIGNATURE

TITLE

DATE

FOR NPS USE ONLY
I HEREBY CERTIFY THAT THIS PROPERTY IS INCLUDED IN THE NATIONAL REGISTER

DIRECTOR, OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION — DATE 4/24/79

ATTEST: — DATE

KEEPER OF THE NATIONAL REGISTER

(NATIONAL HISTORIC LANDMARKS)

(NATIONAL HISTORIC LANDMARKS)

GPO 892-453

OWNER OF PROPERTY: The United States Coast Guard, Department of Transportation, Washington, D.C., and Multiple Private owners, Stony Point, New York

busily conveying supplies between New England and the Middle Atlantic colonies. After a careful reconnaissance of the fort, he ordered General "Mad Anthony" Wayne to regain Stony Point with the newly-formed Light Infantry.

On July 15th, Wayne set out from his camp at Fort Montgomery through the Highlands towards Stony Point. He had under his command 1,350 troops. Just before midnight, Wayne launched his silent assault on the Point. The corps was divided into two columns, one of which under Wayne, stormed the promontory on the rugged slope on the south and the other which under Colonel Richard Butler, scaled the equally difficult slope on the north. These two columns withheld their charge until a body of men under Major Murfrees made a diversionary attack upon the main causeway on the eastern side of the Point. While the diversionary force maintained a distracting fire, the two main columns launched their assault with their muskets unloaded and their bayonets fixed. Within twenty minutes the fort had been secured and its garrison made prisoner. The British lost sixty-three men, while fifteen Americans were killed and eighty-four were wounded, including Wayne, who received a scalp wound.

Following the capture of the stronghold, Washington concluded that the post could not be held and so ordered the fortifications dismantled and removed. The British reoccupied Stony Point on the 19th and rebuilt fortifications, but due to a lack of troops, abandoned it in late September of the same year.

The Stony Point landmark consists of the body of land which was located east of the stream and swamp at the time of the battle. Beginning at the junction of the northern bank of the small stream directly south of the state park, and the western bank of the Hudson, proceed generally east and northwest along the bank of the Hudson for 5400', thence west in a straight line to the 20' contour, thence west and south along said contour to its southernmost point, (for approximately 1600') thence proceed south in a straight line to the northern curb of the unimproved dirt road thence south along said curb to its intersection with the northern curb of the road to the state park, thence south in a straight line to the 10' contour, thence east along said contour to its intersection with the Penn Central right-of-way, thence southeast in a straight line to the north bank of the stream directly south of the state park, and east along said bank to the point of origin. These boundaries enclose the scene of the battle, including the British fortifications and the slopes west of the first abatis over which the American assault was launched. The four private homes, the Penn Central railroad, the state park facilities and the lighthouse and light do not contribute to the national significance of the landmark.

Appendix I: Flood Protection Ordinances and Plans

Chapter 112

FLOOD DAMAGE PREVENTION

GENERAL REFERENCES

Environmental quality review — See Ch. 94.

Excavations — See Ch. 98.

Freshwater wetlands — See Ch. 116.

Subdivision of land — See Ch. 191.

Waterfront consistency — See Ch. 209.

Zoning — See Ch. 215.

Fee Schedule — See Ch. A221.

ARTICLE I
Statutory Authorization; Purpose

§ 112-1. Findings.

The Town Board of the Town of Stony Point finds that the potential and/or actual damages from flooding and erosion may be a problem to the residents of the Town of Stony Point and that such damages may include: destruction or loss of private and public housing, damage to public facilities, both publicly and privately owned, and injury to and loss of human life. In order to minimize the threat of such damages and to achieve the purposes and objectives hereinafter set forth, this chapter is adopted.

§ 112-2. Statement of purpose.

It is the purpose of this chapter to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:

A. Regulate uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;

B. Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;

C. Control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of floodwaters;

D. Control filling, grading, dredging and other development which may increase erosion or flood damages;

E. Regulate the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards to other lands; and

F. Qualify and maintain for participation in the National Flood Insurance Program.

§ 112-3. Objectives.

The objectives of this chapter are:

A. To protect human life and health;

B. To minimize expenditure of public money for costly flood control projects;

C. To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;

D. To minimize prolonged business interruptions;

E. To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone, sewer lines, streets and bridges located in areas of special flood hazard;

F. To help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas;

G. To provide that developers are notified that property is in an area of special flood hazard; and

H. To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.

ARTICLE II
Definitions

§ 112-4. Terms defined.

Unless specifically defined below, words or phrases used in this chapter shall be interpreted so as to give them the meaning they have in common usage and to give this chapter its most reasonable application. As used in this chapter, the following terms shall have the meanings indicated:

ADVISORY BASE FLOOD ELEVATION (ABFE) — The elevation shown on a community's Advisory Flood Hazard Map that indicates the advisory stillwater elevation plus wave effect (ABFE = SWEL + wave effect) resulting from a flood that has a one-percent-or-greater chance of being equaled or exceeded in any given year.

ADVISORY FLOOD HAZARD AREA (AFHA) — The land in the floodplain within a community subject to flooding from the one-percent annual chance event depicted on the Advisory Flood Hazard Map.

ADVISORY FLOOD HAZARD MAP — The official map on which the Federal Emergency Management Administration has delineated the areas of advisory flood hazards applicable to the community.

APPEAL — A request for a review of the local administrator's interpretation of any provision of this chapter or a request for a variance.

AREA OF SHALLOW FLOODING — A designated AO, AH or VO Zone on a community's Flood Insurance Rate Map (FIRM) with a one-percent-or-greater annual chance of flooding to an average annual depth of one foot to three feet where a clearly defined channel does not exist, where the path of flooding is unpredictable and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.

AREA OF SPECIAL FLOOD HAZARD — The land in the floodplain within a community subject to a one-percent-or-greater chance of flooding in any given year. This area may be designated as Zone A, AE, AH, AO, A1-A30, A99, V, VO, VE, or V1-V30. It is also commonly referred to as the base floodplain or one-hundred-year floodplain. For purposes of this chapter, the term "special flood hazard area (SFHA)" is synonymous in meaning with the phrase "area of special flood hazard."

BASE FLOOD — The flood having a one-percent chance of being equaled or exceeded in any given year.

BASEMENT — That portion of a building having its floor subgrade (below ground level) on all sides.

BREAKAWAY WALL — A wall that is not part of the structural support of the building and is intended through its design and construction to collapse under specific lateral loading forces without causing damage to the elevated portion of the building or the supporting foundation system.

BUILDING — See "structure."

CELLAR — Has the same meaning as "basement."

COASTAL HIGH HAZARD AREA — An area of special flood hazard extending from offshore to the inland limit of a primary frontal dune along an open coast and any other area subject to high-velocity wave action from storms or seismic sources. The area is designated on a FIRM as Zone V1-V30, VE, VO or V. The Coastal high hazard area shall also include areas on a FIRM within a Zone AE that is bounded by a line labeled "limit of moderate wave action."

CRAWL SPACE — An enclosed area beneath the lowest elevated floor, 18 inches or more in height, which is used to service the underside of the lowest elevated floor. The elevation of the floor of this enclosed area, which may be of soil, gravel, concrete or other material, must be equal to or above the lowest adjacent exterior grade. The enclosed crawl space area shall be properly vented to allow for the equalization of hydrostatic forces which would be experienced during periods of flooding.

DEVELOPMENT — Any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, paving, excavation or drilling operations or storage of equipment or materials.

ELEVATED BUILDING — A nonbasement building: i) built, in the case of a building in Zones A1-A30, AE, A, A99, AO, AH, B, C, X or D, to have the top of the elevated floor, or in the case of a building in Zones V1-30, VE, or V, to have the bottom of the lowest horizontal structural member of the elevated floor, elevated above the ground level by means of pilings, columns (posts and piers), or shear walls parallel to the flow of the water; and ii) adequately anchored so as not to impair the structural integrity of the building during a flood of up to the magnitude of the base flood. In the case of Zones A1-A30, AE, A, A99, AO, AH, B, C, X or D, "elevated building" also includes a building elevated by means of fill or solid foundation perimeter walls with openings sufficient to facilitate the unimpeded movement of floodwaters. In the case of Zones V1-V30, VE or V, "elevated building" also includes a building otherwise meeting the definition of "elevated building," even though the lower area is enclosed by means of breakaway walls that meet the federal standards.

FEDERAL EMERGENCY MANAGEMENT AGENCY — The federal agency that administers the National Flood Insurance Program.

FLOOD BOUNDARY AND FLOODWAY MAP (FBFM) — An official map of the community published by the Federal Emergency Management Agency as part of a riverine community's Flood Insurance Study. The FBFM delineates a regulatory floodway along watercourses studied in detail in the Flood Insurance Study.

FLOOD ELEVATION STUDY — An examination, evaluation and determination of the flood hazards and, if appropriate, corresponding water surface elevations, or an examination, evaluation and determination of flood-related erosion hazards.

FLOOD HAZARD BOUNDARY MAP (FHBM) — An official map of a community, issued by the Federal Emergency Management Agency, where

the boundaries of the areas of special flood hazard have been designated as Zone A but no flood elevations are provided.

FLOOD INSURANCE RATE MAP (FIRM) — An official map of a community, on which the Federal Emergency Management Agency has delineated both the areas of special flood hazard and the risk premium zones applicable to the community.

FLOOD INSURANCE STUDY — See "flood elevation study."

FLOOD or FLOODING —

A. A general and temporary condition of partial or complete inundation of normally dry land areas from:

   (1) The overflow of inland or tidal waters;

   (2) The unusual and rapid accumulation or runoff of surface waters from any source.

B. "Flood or flooding" also means the collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as a flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding as defined in Subsection A(1) above.

FLOODPLAIN or FLOOD-PRONE AREA — Any land area susceptible to being inundated by water from any source (see definition of "flooding").

FLOODPROOFING — Any combination of structural and nonstructural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.

FLOODWAY — Has the same meaning as "regulatory floodway."

FUNCTIONALLY DEPENDENT USE — A use which cannot perform its intended purpose unless it is located or carried out in close proximity to water, such as a docking or port facility necessary for the loading and unloading of cargo or passengers, shipbuilding, and ship repair facilities. The term does not include long-term storage, manufacturing, sales, or service facilities.

HIGHEST ADJACENT GRADE — The highest natural elevation of the ground surface, prior to construction, next to the proposed walls of a structure.

HISTORIC STRUCTURE — Any structure that is:

A. Listed individually in the National Register of Historic Places (a listing maintained by the Department of the Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;

B. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;

C. Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or

D. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:

(1) By an approved state program as determined by the Secretary of the Interior or

(2) Directly by the Secretary of the Interior in states without approved programs.

LOCAL ADMINISTRATOR — The person appointed by the community to administer and implement this chapter by granting or denying development permits in accordance with its provisions. This person is often the Building Inspector, Code Enforcement Officer, or employee of an engineering department.

LOWEST FLOOR — Lowest floor of the lowest enclosed area (including basement or cellar). An unfinished or flood-resistant enclosure, usable solely for parking of vehicles, building access, or storage in an area other than a basement area is not considered a building's lowest floor; provided that such enclosure is not built so as to render the structure in violation of the applicable nonelevation design requirements of this chapter.

MANUFACTURED HOME — A structure, transportable in one or more sections, which is built on a permanent chassis and designed to be used with or without a permanent foundation when connected to the required utilities. The term does not include a recreational vehicle.

MANUFACTURED HOME PARK OR SUBDIVISION — A parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

MEAN SEA LEVEL — For purposes of the National Flood Insurance Program, the National Geodetic Vertical Datum (NGVD) of l929, the North American Vertical Datum of 1988 (NAVD 88), or other datum to which base flood elevations shown on a community's Flood Insurance Rate Map are referenced.

MOBILE HOME — Has the same meaning as "manufactured home."

NEW CONSTRUCTION — Structures for which the "start of construction" commenced on or after the effective date of a floodplain management regulation adopted by the community and includes any subsequent improvements to such structure.

ONE HUNDRED YEAR FLOOD — Has the same meaning as "base flood."

PRIMARY FRONTAL DUNE — A continuous or nearly continuous mound or ridge of sand with relatively steep seaward and landward slopes immediately landward and adjacent to the beach and subject to erosion and overtopping from high tides and waves during major coastal storms. The inland limit of the primary frontal dune occurs at the point where there is a distinct change from a relatively steep slope to a relatively mild slope.

PRINCIPALLY ABOVEGROUND — That at least 51% of the actual cash value of the structure, excluding land value, is aboveground.

RECREATIONAL VEHICLE — A vehicle which is:

A. Built on a single chassis;

B. Four hundred square feet or less when measured at the largest horizontal projections;

C. Designed to be self-propelled or permanently towable by a light-duty truck; and

D. Not designed primarily for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

REGULATORY FLOODWAY — The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height as determined by the Federal Emergency Management Agency in a Flood Insurance Study or by other agencies as provided in § 112-14B of this chapter.

SAND DUNES — Naturally occurring accumulations of sand in ridges or mounds landward of the beach.

START OF CONSTRUCTION — The date of permit issuance for new construction and substantial improvements to existing structures, provided that actual start of construction, repair, reconstruction, rehabilitation, addition placement, or other improvement is within 180 days after the date of issuance. The actual start of construction means the first placement of permanent construction of a building (including a manufactured home) on a site, such as the pouring of a slab or footings, installation of pilings or construction of columns. Permanent construction does not include land preparation (such as clearing, excavation, grading, or filling), or the installation of streets or walkways, or excavation for a basement, footings, piers or foundations, or the erection of temporary forms, or the installation of accessory buildings such as garages or sheds not occupied as dwelling units or not part of the main building. For a substantial improvement, the actual "start of construction" means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

STRUCTURE — A walled and roofed building, including a gas or liquid storage tank, that is principally aboveground, as well as a manufactured home.

SUBSTANTIAL DAMAGE — Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before-damaged condition would equal or exceed 50% of the market value of the structure before the damage occurred.

SUBSTANTIAL IMPROVEMENT — Any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50% of the market value of the structure before the start of construction of the improvement. The term includes structures which have incurred substantial damage, regardless of the actual repair work performed. The term does not, however, include either:

A. Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions; or

B. Any alteration of an historic structure, provided that the alteration will not preclude the structure's continued designation as an historic structure.

VARIANCE — A grant of relief from the requirements of this chapter which permits construction or use in a manner that would otherwise be prohibited by this chapter.

ARTICLE III
General Provisions

§ 112-5. Lands to which this chapter applies.

This chapter shall apply to all areas of special flood hazard within the jurisdiction of the Town of Stony Point, Rockland County.

§ 112-6. Basis for establishing areas of special flood hazard. [Amended 1-14-2014 by L.L. No. 1-2014]

A. The areas of special flood hazard for the Town of Stony Point, Community No. 360693, are identified and defined on the following documents prepared by the Federal Emergency Management Agency:

(1) Flood Insurance Rate Map Panel Nos: 36087C0014G, 36087C0016G, 36087C0017G, 36087C0018G, 36087C0019G, 36087C0028G, 36087C0036G, 36087C0037G, 36087C0038G, 36087C0039G, 36087C0076G, 36087C0077G, 36087C0081G, 36087C0082G, 36087C0084G, 36087C0101G, 36087C0102G, 36087C0103G, 36087C0104G; the effective date of which is March 3, 2014, and any subsequent revisions to these map panels that do not affect areas under our community's jurisdiction.

(2) A scientific and engineering report entitled "Flood Insurance Study, Rockland County, New York, All Jurisdictions" dated March 3, 2014.

(3) Advisory Base Flood Elevations and Advisory Flood Hazard Maps dated June 20, 2013. These documents shall take precedence over previous panels and FIS in construction and development regulations only. Where the special flood hazard area (SFHA) and the Advisory Flood Hazard Area (AFHA) maps conflict or overlap, whichever imposes the more stringent requirement shall prevail.

(4) Notwithstanding the provisions of Subsection A(1), (2), and (3) above, with respect to the real property identified on the Town of Stony Point Tax Map as Section 20.02, Block 11, Lots 7.1 and 9, the areas of special flood hazard are identified on the Revised Base Flood Elevation Map dated March 27, 2018, prepared by Brooker Engineering PLLC, and the documents supporting said map. **[Added 8-14-2018 by L.L. No. 4-2018]**

B. The above documents are hereby adopted and declared to be a part of this chapter. The Flood Insurance Study and/or maps are on file at: Town of Stony Point, Town Clerk's Office, 74 E. Main Street, Stony Point, New York 10980.

§ 112-7. Interpretation and conflict with other laws.

A. This chapter includes all revisions to the National Flood Insurance Program through July 6, 2012, and shall supersede all previous laws adopted for the purpose of flood damage prevention.

B. In their interpretation and application, the provisions of this chapter shall be held to be minimum requirements, adopted for the promotion of the public health, safety, and welfare. Whenever the requirements of this chapter are at variance with the requirements of any other lawfully adopted rules, regulations, or ordinances, the most restrictive, or that imposing the higher standards, shall govern.

§ 112-8. Severability.

The invalidity of any section or provision of this chapter shall not invalidate any other section or provision thereof.

§ 112-9. Penalties for offenses.

No structure in an area of special flood hazard shall hereafter be constructed, located, extended, converted, or altered and no land shall be excavated or filled without full compliance with the terms of this chapter and any other applicable regulations. Any infraction of the provisions of this chapter by failure to comply with any of its requirements, including infractions of conditions and safeguards established in connection with conditions of the permit, shall constitute a violation. Any person who violates this chapter or fails to comply with any of its requirements shall, upon conviction thereof, be fined no more than $250 or imprisoned for not more than l5 days or both. Each day of noncompliance shall be considered a separate offense. Nothing herein contained shall prevent the Town of Stony Point from taking such other lawful action as necessary to prevent or remedy an infraction. Any structure found not compliant with the requirements of this chapter for which the developer and/or owner has not applied for and received an approved variance under Article VI will be declared noncompliant and notification sent to the Federal Emergency Management Agency.

§ 112-10. Warning and disclaimer of liability.

The degree of flood protection required by this chapter is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This chapter does not imply that land outside the area of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This chapter shall not create liability on the part of the Town of Stony Point, any officer or employee thereof, or the Federal Emergency Management Agency, for any flood damages that result from reliance on this chapter or any administrative decision lawfully made thereunder.

ARTICLE IV
Administration

§ 112-11. Designation of local administrator.

The Building Inspector is hereby appointed local administrator to administer and implement this chapter by granting or denying floodplain development permits in accordance with its provisions.

§ 112-12. The floodplain development permit established.

A. Purpose. A floodplain development permit is hereby established for all construction and other development to be undertaken in areas of special flood hazard in this community for the purpose of protecting its citizens from increased flood hazards and ensuring that new development is constructed in a manner that minimizes its exposure to flooding. It shall be unlawful to undertake any development in an area of special flood hazard, as shown on the Flood Insurance Rate Map or Advisory Flood Hazard Map enumerated in § 112-6, without a valid floodplain development permit. Application for a permit shall be made on forms furnished by the local administrator and may include, but not be limited to; plans, in duplicate, drawn to scale and showing the nature, location, dimensions, and elevations of the area in question; existing or proposed structures, fill, storage of materials, drainage facilities; and the location of the foregoing.

§ 112-13. Permit application requirements.

The applicant shall provide the following information as appropriate. Additional information may be required on the permit application form.

A. The proposed elevation, in relation to mean sea level, of the lowest floor (including basement or cellar) of any new or substantially improved structure to be located in Zones A1-A30, AE or AH, or Zone A if base flood elevation data are available. Upon completion of the lowest floor, the permittee shall submit to the local administrator the as-built elevation, certified by a licensed professional engineer or surveyor.

B. The proposed elevation, in relation to mean sea level, of the bottom of the lowest structural member of the lowest floor (excluding pilings and columns) of any new or substantially improved structure to be located in Zones V1-V30 or VE, or Zone V if base flood elevation data are available. Upon completion of the lowest floor, the permittee shall submit to the local administrator the as-built elevation, certified by a licensed professional engineer or surveyor.

C. The proposed elevation, in relation to mean sea level, to which any new or substantially improved nonresidential structure will be floodproofed. Upon completion of the floodproofed portion of the structure, the permittee shall submit to the local administrator the as-built floodproofed elevation, certified by a professional engineer or surveyor.

D. A certificate from a licensed professional engineer or architect that any utility flood-proofing will meet the criteria in § 112-16C, Utilities.

E. A certificate from a licensed professional engineer or architect that any nonresidential floodproofed structure will meet the floodproofing criteria in § 112-19, Nonresidential structures.

F. A description of the extent to which any watercourse will be altered or relocated as a result of proposed development. Computations by a licensed professional engineer must be submitted that demonstrate that the altered or relocated segment will provide equal or greater conveyance than the original stream segment. The applicant must submit any maps, computations or other material required by the Federal Emergency Management Agency (FEMA) to revise the documents enumerated in § 112-6, when notified by the local administrator, and must pay any fees or other costs assessed by FEMA for this purpose. The applicant must also provide assurances that the conveyance capacity of the altered or relocated stream segment will be maintained.

G. A technical analysis, by a licensed professional engineer, if required by the local administrator, which shows whether proposed development to be located in an area of special flood hazard may result in physical damage to any other property.

H. In Zone A, when no base flood elevation data are available from other sources, base flood elevation data shall be provided by the permit applicant for subdivision proposals and other proposed developments (including proposals for manufactured home and recreational vehicle parks and subdivisions) that are greater than either 50 lots or five acres.

I. In Zones V1-V30 and VE, and also Zone V if base flood elevations are available, designs and specifications, certified by a licensed professional engineer or architect, for any breakaway walls in a proposed structure with design strengths in excess of 20 pounds per square foot.

J. In Zones V1-V30 and VE, and also Zone V if base flood elevations are available, for all new and substantial improvements to structures, floodplain development permit applications shall be accompanied by design plans and specifications, prepared in sufficient detail to enable independent review of the foundation support and connection components. Said plans and specifications shall be developed or reviewed by a licensed professional engineer or architect, and shall be accompanied by a statement, bearing the signature of the architect or engineer, certifying that the design and methods of construction to be used are in accordance with accepted standards of practice and with all applicable provisions of this chapter.

§ 112-14. Duties and responsibilities of local administrator.

Duties of the local administrator shall include, but not be limited to, the following:

A. Permit application review. The local administrator shall conduct the following permit application review before issuing a floodplain development permit:

(1) Review all applications for completeness, particularly with the requirements of subsection § 112-13, Permit application requirements, and for compliance with the provisions and standards of this chapter.

(2) Review subdivision and other proposed new development, including manufactured home parks, to determine whether proposed building sites will be reasonably safe from flooding. If a proposed building site is located in an area of special flood hazard, all new construction and substantial improvements shall meet the applicable standards of Article V, Construction Standards and, in particular, § 112-15B, Subdivision proposals.

(3) Determine whether any proposed development in an area of special flood hazard may result in physical damage to any other property (e.g., stream bank erosion and increased flood velocities). The local administrator may require the applicant to submit additional technical analyses and data necessary to complete the determination. If the proposed development may result in physical damage to any other property or fails to meet the requirements of Article V, Construction Standards, no permit shall be issued. The applicant may revise the application to include measures that mitigate or eliminate the adverse effects and resubmit the application.

(4) Determine that all necessary permits have been received from those governmental agencies from which approval is required by state or federal law.

B. Use of other flood data.

(1) When the Federal Emergency Management Agency has designated areas of special flood hazard on the community's Flood Insurance Rate Map (FIRM) but has neither produced water surface elevation data (these areas are designated Zone A or V on the FIRM) nor identified a floodway, the local administrator shall obtain, review and reasonably utilize any base flood elevation and floodway data available from a federal, state or other source, including data developed pursuant to § 112-13H, as criteria for requiring that new construction, substantial improvements or other proposed development meet the requirements of this chapter.

(2) When base flood elevation data are not available, the local administrator may use flood information from any other authoritative source, such as historical data, to establish flood elevations within the areas of special flood hazard, for the purposes of this chapter.

C. Alteration of watercourses

(1) Notification to adjacent communities and the New York State Department of Environmental Conservation prior to permitting any alteration or relocation of a watercourse, and submittal of evidence of such notification to the Regional Director, Region II, Federal Emergency Management Agency.

(2) Determine that the permit holder has provided for maintenance within the altered or relocated portion of said watercourse so that the flood-carrying capacity is not diminished.

D. Construction stage.

(1) In Zones A1-A30, AE and AH, and also Zone A if base flood elevation data are available, upon placement of the lowest floor or completion of floodproofing of a new or substantially improved structure, obtain from the permit holder a certification of the as-built elevation of the lowest floor or floodproofed elevation, in relation to mean sea level. The certificate shall be prepared by or under the direct supervision of a licensed land surveyor or professional engineer and certified by same. For manufactured homes, the permit holder shall submit the certificate of elevation upon placement of the structure on the site. A certificate of elevation must also be submitted for a recreational vehicle if it remains on a site for 180 consecutive days or longer (unless it is fully licensed and ready for highway use).

(2) In Zones V1-V30 and VE, and also Zone V if base flood elevation data are available, upon placement of the lowest floor of a new or substantially improved structure, the permit holder shall submit to the local administrator a certificate of elevation, in relation to mean sea level, of the bottom of the lowest structural member of the lowest floor (excluding pilings and columns). The certificate shall be prepared by or under the direct supervision of a licensed land surveyor or professional engineer and certified by same. For manufactured homes, the permit holder shall submit the certificate of elevation upon placement of the structure on the site. An elevation certificate must also be submitted for a recreational vehicle if it remains on a site 180 consecutive days or longer (unless it is fully licensed and ready for highway use).

(3) Any further work undertaken prior to submission and approval of the certification shall be at the permit holder's risk. The local administrator shall review all data submitted. Deficiencies detected

shall be cause to issue a stop-work order for the project unless immediately corrected.

E. Inspections. The local administrator and/or the developer's engineer or architect shall make periodic inspections at appropriate times throughout the period of construction in order to monitor compliance with permit conditions and enable said inspector to certify, if requested, that the development is in compliance with the requirements of the floodplain development permit and/or any variance provisions.

F. Stop-work orders.

(1) The local administrator shall issue, or cause to be issued, a stop-work order for any floodplain development found ongoing without a development permit. Disregard of a stop-work order shall subject the violator to the penalties described in § 112-9 of this chapter.

(2) The local administrator shall issue, or cause to be issued, a stop-work order for any floodplain development found noncompliant with the provisions of this chapter and/or the conditions of the development permit. Disregard of a stop-work order shall subject the violator to the penalties described in § 112-9 of this chapter.

G. Certificate of compliance.

(1) In areas of special flood hazard, as determined by documents enumerated in § 112-6, it shall be unlawful to occupy or to permit the use or occupancy of any building or premises, or both, or part thereof hereafter created, erected, changed, converted or wholly or partly altered or enlarged in its use or structure until a certificate of compliance has been issued by the local administrator stating that the building or land conforms to the requirements of this chapter.

(2) A certificate of compliance shall be issued by the local administrator upon satisfactory completion of all development in areas of special flood hazard.

(3) Issuance of the certificate shall be based upon the inspections conducted as prescribed in § 112-14E, Inspections, and/or any certified elevations, hydraulic data, floodproofing, anchoring requirements or encroachment analyses which may have been required as a condition of the approved permit.

H. Information to be retained. The local administrator shall retain and make available for inspection copies of the following:

(1) Floodplain development permits and certificates of compliance;

(2) Certifications of as-built lowest floor elevations of structures, required pursuant to Subsections D(1) and (2), and whether or not the structures contain a basement;

(3) Floodproofing certificates required pursuant to Subsection D(1), and whether or not the structures contain a basement;

(4) Variances issued pursuant to Article VI, Variance Procedures; and

(5) Notices required under Subsection C, Alteration of watercourses.

ARTICLE V
Construction Standards

§ 112-15. General standards.

The following standards apply to new development, including new and substantially improved structures, in the areas of special flood hazard shown on the Flood Insurance Rate Map or Advisory Flood Hazard Map designated in § 112-6.

A. Coastal high hazard areas. The following requirements apply within Zones V1-V30, VE and V:

(1) All new construction, including manufactured homes and recreational vehicles on site 180 days or longer and not fully licensed for highway use, shall be located landward of the reach of high tide.

(2) The use of fill for structural support of buildings, manufactured homes or recreational vehicles on site 180 days or longer is prohibited.

(3) Man-made alteration of sand dunes which would increase potential flood damage is prohibited.

B. Subdivision proposals. The following standards apply to all new subdivision proposals and other proposed development in areas of special flood hazard (including proposals for manufactured home and recreational vehicle parks and subdivisions):

(1) Proposals shall be consistent with the need to minimize flood damage;

(2) Public utilities and facilities such as sewer, gas, electrical and water systems shall be located and constructed so as to minimize flood damage; and

(3) Adequate drainage shall be provided to reduce exposure to flood damage.

C. Encroachments.

(1) Within Zones A1-A30 and AE, on streams without a regulatory floodway, no new construction, substantial improvements or other development (including fill) shall be permitted unless:

(a) The applicant demonstrates that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any location; or

(b) The Town of Stony Point agrees to apply to the Federal Emergency Management Agency (FEMA) for a conditional FIRM revision, FEMA approval is received and the applicant provides all necessary data, analyses and mapping and reimburses the Town of Stony Point for all fees and other costs in relation to the application. The applicant must also provide all data, analyses and mapping and reimburse the Town of Stony Point for all costs related to the final map revision.

(2) On streams with a regulatory floodway, as shown on the Flood Boundary and Floodway Map or the Flood Insurance Rate Map adopted in § 112-6, no new construction, substantial improvements or other development in the floodway (including fill) shall be permitted unless:

(a) A technical evaluation by a licensed professional engineer shows that such an encroachment shall not result in any increase in flood levels during occurrence of the base flood; or

(b) The Town of Stony Point agrees to apply to the Federal Emergency Management Agency (FEMA) for a conditional FIRM and floodway revision, FEMA approval is received and the applicant provides all necessary data, analyses and mapping and reimburses the Town of Stony Point for all fees and other costs in relation to the application. The applicant must also provide all data, analyses and mapping and reimburse the Town of Stony Point for all costs related to the final map revisions.

§ 112-16. Standards for all structures.

The following standards apply to new development, including new and substantially improved structures, in the areas of special flood hazard shown on the Flood Insurance Rate Map or Advisory Flood Hazard Map designated in § 112-6.

A. Anchoring. New structures and substantial improvement to structures in areas of special flood hazard shall be anchored to prevent flotation, collapse, or lateral movement during the base flood. This requirement is in addition to applicable state and local anchoring requirements for resisting wind forces.

B. Construction materials and methods.

(1) New construction and substantial improvements to structures shall be constructed with materials and utility equipment resistant to flood damage.

(2) New construction and substantial improvements to structures shall be constructed using methods and practices that minimize flood damage.

(3) Enclosed areas below the lowest floor.

(a) For enclosed areas below the lowest floor of a structure within Zones A1-A30, AE or AH, and also Zone A if base flood elevation data are available, new and substantially improved structures shall have fully enclosed areas below the lowest floor that are useable solely for parking of vehicles, building access or storage in an area other than a basement and which are subject to flooding, designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a licensed professional engineer or architect or meet or exceed the following minimum criteria:

[1] A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding; and

[2] The bottom of all such openings no higher than one foot above the lowest adjacent finished grade.

(b) Openings may be equipped with louvers, valves, screens or other coverings or devices provided they permit the automatic entry and exit of floodwaters. Enclosed areas sub-grade on all sides are considered basements and are not permitted.

(4) Within Zones V1-V30 and VE, and also within Zone V if base flood elevations are available, new construction and substantial improvements shall have the space below the lowest floor either free from obstruction or constructed with nonsupporting breakaway walls, open wood lattice-work or insect screening intended to collapse under wind and water loads without causing collapse, displacement, or other structural damage to the elevated portion of the building or supporting foundation system. The enclosed space below the lowest floor shall be used only for parking vehicles, building access or storage. Use of this space for human habitation is expressly prohibited. The construction of stairs, stairwells and elevator shafts are subject to the design requirements for breakaway walls.

C. Utilities.

(1) New and replacement electrical equipment, heating, ventilating, air-conditioning, plumbing connections, and other service equipment shall be located at or above the base flood elevation or be designed to prevent water from entering and accumulating within the components during a flood and to resist hydrostatic and hydrodynamic loads and stresses. Electrical wiring and outlets, switches, junction boxes and panels shall be elevated to or above the base flood elevation unless they conform to the appropriate provisions of the electrical part of the Building Code of New York

State or the Residential Code of New York State for location of such items in wet locations;

(2) New and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system;

(3) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters. Sanitary sewer and storm drainage systems for buildings that have openings below the base flood elevation shall be provided with automatic backflow valves or other automatic backflow devices that are installed in each discharge line passing through a building's exterior wall; and

(4) On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

§ 112-17. Residential structures (except coastal high hazard areas).

A. Elevation. The following standards apply to new and substantially improved residential structures located in areas of special flood hazard, in addition to the requirements in §§ 112-15B, Subdivision proposals, 112-15C, Encroachments, and 112-16, Standards for all structures:

(1) Within Zones A1-A30, AE and AH and also Zone A if base flood elevation data are available, new construction and substantial improvements shall have the lowest floor (including basement) elevated to or above two feet above the base flood elevation.

(2) Within Zone A, when no base flood elevation data are available, new and substantially improved structures shall have the lowest floor (including basement) elevated at least three feet above the highest adjacent grade.

(3) Within Zone AO, new and substantially improved structures shall have the lowest floor (including basement) elevated above the highest adjacent grade at least as high as two feet above the depth number specified in feet on the community's Flood Insurance Rate Map enumerated in § 112-6 (at least two feet if no depth number is specified).

(4) Within Zones AH and AO, adequate drainage paths are required to guide floodwaters around and away from proposed structures on slopes.

§ 112-18. Residential structures (coastal high hazard areas).

The following standards, in addition to the standards in §§ 112-15A, Coastal high hazard areas, 112-15B, Subdivision proposals, and 112-16, Standards for all structures, apply to new and substantially improved residential structures located in areas of special flood hazard shown as Zones V1-V30, VE or V on the community's Flood Insurance Rate Map or Advisory Flood Hazard Map designated in § 112-6:

A. Elevation. New construction and substantial improvements shall be elevated on pilings, columns or shear walls such that the bottom of the lowest horizontal structural member supporting the lowest elevated floor (excluding columns, piles, diagonal bracing attached to the piles or columns, grade beams, pile caps and other members designed to either withstand storm action or break away without imparting damaging loads to the structure) is elevated to or above two feet above base flood elevation so as not to impede the flow of water.

B. Determination of loading forces. Structural design shall consider the effects of wind and water loads acting simultaneously during the base flood on all building components.

(1) The structural design shall be adequate to resist water forces that would occur during the base flood. Horizontal water loads considered shall include inertial and drag forces of waves, current drag forces, and impact forces from waterborne storm debris. Dynamic uplift loads shall also be considered if bulkheads, walls, or other natural or man-made flow obstructions could cause wave runup beyond the elevation of the base flood.

(2) Buildings shall be designed and constructed to resist the forces due to wind pressure. Wind forces on the superstructure include windward and leeward forces on vertical walls, uplift on the roof, internal forces when openings allow wind to enter the house, and upward force on the underside of the house when it is exposed. In the design, the wind should be assumed to blow potentially from any lateral direction relative to the house.

(3) Wind loading values used shall be those required by the building code.

C. Foundation standards.

(1) The pilings or column foundation and structure attached thereto shall be adequately anchored to resist flotation, collapse or lateral movement due to the effects of wind and water pressures acting simultaneously on all building components. Foundations must be designed to transfer safely to the underlying soil all loads due to wind, water, dead load, live load and other loads (including uplift due to wind and water).

(2) Spread footings and fill material shall not be used for structural support of a new building or substantial improvement of an existing structure.

D. Pile foundation design.

(1) The design ratio of pile spacing to pile diameter shall not be less than 8:1 for individual piles (this shall not apply to pile clusters located below the design grade). The maximum center-to-center

spacing of wood piles shall not be more than 12 feet on center under load-bearing sills, beams, or girders.

(2) Pilings shall have adequate soil penetration (bearing capacity) to resist the combined wave and wind loads (lateral and uplift) associated with the base flood acting simultaneously with typical structure (live and dead) loads, and shall include consideration of decreased resistance capacity caused by erosion of soil strata surrounding the piles. The minimum penetration for foundation piles is to an elevation of five feet below mean sea level (msl) datum if the BFE is +10 msl or less, or to be at least 10 feet below msl if the BFE is greater than +10 msl.

(3) Pile foundation analysis shall also include consideration of piles in column action from the bottom of the structure to the stable soil elevation of the site. Pilings may be horizontally or diagonally braced to withstand wind and water forces.

(4) The minimum acceptable sizes for timber piles are a tip diameter of eight inches for round timber piles and eight inches by eight inches for square timber piles. All wood piles must be treated in accordance with requirements of EPEE-C3 to minimize decay and damage from fungus.

(5) Reinforced concrete piles shall be cast of concrete having a twenty-eight-day ultimate compressive strength of not less than 5,000 pounds per square inch, and shall be reinforced with a minimum of four longitudinal steel bars having a combined area of not less than 1% nor more than 4% of the gross concrete area. Reinforcing for precast piles shall have a concrete cover of not less than 1 1/4 inches for No. 5 bars and smaller and not less than 1 1/2 inches for No. 6 through No. 11 bars. Reinforcement for piles cast in the field shall have a concrete cover of not less than two inches.

(6) Piles shall be driven by means of a pile driver or drop hammer, jetted, or augered into place.

(7) Additional support for piles in the form of bracing may include lateral or diagonal bracing between piles.

(8) When necessary, piles shall be braced at the ground line in both directions by a wood timber grade beam or a reinforced concrete grade beam. These at-grade supports should be securely attached to the piles to provide support even if scoured from beneath.

(9) Diagonal bracing between piles, consisting of two-inch-by-eight-inch (minimum) members bolted to the piles, shall be limited in location to below the lowest supporting structural member and above the stable soil elevation, and aligned in the vertical plane along pile rows perpendicular to the shoreline. Galvanized steel rods (minimum diameter 1/2 inch) or cable-type bracing is permitted in any plane.

(10) Knee braces, which stiffen both the upper portion of a pile and the beam-to-pile connection, may be used along pile rows perpendicular and parallel to the shoreline. Knee braces shall be two-by-eight lumber bolted to the sides of the pile/beam, or four-by-four or larger braces framed into the pile/beam. Bolting shall consist of two five-eighths-inch galvanized steel bolts (each end) for two-by-eight members, or one five-eighths-inch lag bolt (each end) for square members. Knee braces shall not extend more than three feet below the elevation of the base flood.

E. Column foundation design.

(1) Masonry piers or poured-in-place concrete piers shall be internally reinforced to resist vertical and lateral loads, and be connected with a movement-resisting connection to a pile cap or pile shaft.

F. Connectors and fasteners.

(1) Galvanized metal connectors, wood connectors, or bolts of size and number adequate for the calculated loads must be used to connect adjoining components of a structure. Toe nailing as a principal method of connection is not permitted. All metal connectors and fasteners used in exposed locations shall be steel, hot-dipped galvanized after fabrication. Connectors in protected interior locations shall be fabricated from galvanized sheet.

G. Beam-to-pile connections,

(1) The primary floor beams or girders shall span the supports in the direction parallel to the flow of potential floodwater and wave action and shall be fastened to the columns or pilings by bolting, with or without cover plates. Concrete members shall be connected by reinforcement, if cast in place, or (if precast) shall be securely connected by bolting and welding. If sills, beams, or girders are attached to wood piling at a notch, a minimum of two five-eighths-inch galvanized steel bolts or two hot-dipped galvanized straps 3/16-inch by four inches by 18 inches each bolted with two half-inch lag bolts per beam member shall be used. Notching of pile tops shall be the minimum sufficient to provide ledge support for beam members without unduly weakening pile connections. Piling shall not be notched so that the cross section is reduced below 50%.

H. Floor and deck connections.

(1) Wood two-by-four-inch (minimum) connectors or metal joist anchors shall be used to tie floor joists to floor beams/girders. These should be installed on alternate floor joists, at a minimum. Cross bridging of all floor joists shall be provided. Such cross bridging may be one-by-three-inch members, placed eight feet on center maximum, or solid bridging of same depth as joist at same spacing.

(2) Plywood should be used for subflooring and attic flooring to provide good torsional resistance in the horizontal plane of the structure. The plywood should not be less than three-fourths-inch total thickness, and should be exterior grade and fastened to beams or joists with 8d annular or spiral thread galvanized nails. Such fastening shall be supplemented by the application of waterproof industrial adhesive applied to all bearing surfaces.

I. Exterior wall connections.

(1) All bottom plates shall have any required breaks under a wall stud or an anchor bolt. Approved anchors will be used to secure rafters or joists and top and bottom plates to studs in exterior and bearing walls to form a continuous tie. Continuous 15/32-inch or thicker plywood sheathing—overlapping the top wall plate and continuing down to the sill, beam, or girder—may be used to provide the continuous tie. If the sheets of plywood are not vertically continuous, then two-by-four nailer blocking shall be provided at all horizontal joints. In lieu of the plywood, galvanized steel rods of one-half-inch diameter or galvanized steel straps not less than one inch wide by 1/16-inch thick may be used to connect from the top wall plate to the sill, beam, or girder. Washers with a minimum diameter of three inches shall be used at each end of the one-half-inch round rods. These anchors shall be installed no more than two feet from each corner rod, no more than four feet on center.

J. Ceiling joist/rafter connections.

(1) All ceiling joists or rafters shall be installed in such a manner that the joists provide a continuous tie across the rafters. Ceiling joists and rafters shall be securely fastened at their intersections. A metal or wood connector shall be used at alternate ceiling joist/rafter connections to the wall top plate.

(2) Gable roofs shall be additionally stabilized by installing two-by-four blocking on two-foot centers between the rafters at each gable end. Blocking shall be installed a minimum of eight feet toward the house interior from each gable end.

K. Projecting members.

(1) All cantilevers and other projecting members must be adequately supported and braced to withstand wind and water uplift forces. Roof eave overhangs shall be limited to a maximum of two feet and joist overhangs to a maximum of one foot. Larger overhangs and porches will be permitted if designed or reviewed and certified by a registered professional engineer or architect.

L. Roof sheathing.

(1) Plywood, or other wood material, when used as roof sheathing, shall not be less than 15/32 inch in thickness, and shall be of

exterior sheathing grade or equivalent. All attaching devices for sheathing and roof coverings shall be galvanized or be of other suitable corrosion-resistant material.

(2) All corners, gable ends, and roof overhangs exceeding six inches shall be reinforced by the application of waterproof industrial adhesive applied to all bearing surfaces of any plywood sheet used in the sheathing of such corner, gable end, or roof overhang.

(3) In addition, roofs should be sloped as steeply as practicable to reduce uplift pressures, and special care should be used in securing ridges, hips, valleys, eaves, vents, chimneys, and other points of discontinuity in the roofing surface.

M. Protection of openings.

(1) All exterior glass panels, windows, and doors shall be designed, detailed, and constructed to withstand loads due to the design wind speed of 75 mph. Connections for these elements must be designed to transfer safely the design loads to the supporting structure. Panel widths of multiple panel sliding glass doors shall not exceed three feet.

N. Breakaway wall design standards.

(1) The breakaway wall shall have a design safe loading resistance of not less than 10 and not more than 20 pounds per square foot, with the criterion that the safety of the overall structure at the point of wall failure be confirmed using established procedures. Grade beams shall be installed in both directions for all piles considered to carry the breakaway wall load. Knee braces are required for front row piles that support break away walls.

(2) Use of breakaway wall strengths in excess of 20 pounds per square foot shall not be permitted unless a registered professional engineer or architect has developed or reviewed the structural design and specifications for the building foundation and breakaway wall components, and certifies that: 1) the breakaway walls will fail under water loads less than those that would occur during the base flood; and 2) the elevated portion of the building and supporting foundation system will not be subject to collapse, displacement, or other structural damage due to the effects of wind and water loads acting simultaneously on all building components (structural and nonstructural). Water loading values used shall be those associated with the base flood. Wind loading values shall be those required by the building code.

§ 112-19. Nonresidential structures (except coastal high hazard areas).

The following standards apply to new and substantially improved commercial, industrial and other nonresidential structures located in areas

of special flood hazard, in addition to the requirements in §§ 112-15B, Subdivision proposals, 112-15C, Encroachments, and 112-16, Standards for all structures.

A. Within Zones A1-A30, AE and AH, and also Zone A if base flood elevation data are available, new construction and substantial improvements of any nonresidential structure, together with attendant utility and sanitary facilities, shall either:

   (1) Have the lowest floor, including basement or cellar, elevated to or above two feet above the base flood elevation; or

   (2) Be floodproofed so that the structure is watertight below two feet above the base flood elevation with walls substantially impermeable to the passage of water. All structural components located below the base flood elevation must be capable of resisting hydrostatic and hydrodynamic loads and the effects of buoyancy.

B. Within Zone AO, new construction and substantial improvements of nonresidential structures shall:

   (1) Have the lowest floor (including basement) elevated above the highest adjacent grade at least as high as two feet above the depth number specified in feet on the community's FIRM (at least two feet if no depth number is specified); or

   (2) Together with attendant utility and sanitary facilities, be completely floodproofed to that level to meet the floodproofing standard specified in § 112-16C.

C. If the structure is to be floodproofed, a licensed professional engineer or architect shall develop and/or review structural design, specifications, and plans for construction. A floodproofing certificate or other certification shall be provided to the local administrator that certifies the design and methods of construction are in accordance with accepted standards of practice for meeting the provisions of § 112-19A(2), including the specific elevation (in relation to mean sea level) to which the structure is to be floodproofed.

D. Within Zones AH and AO, adequate drainage paths are required to guide floodwaters around and away from proposed structures on slopes.

   (1) Within Zone A, when no base flood elevation data are available, the lowest floor (including basement) shall be elevated at least three feet above the highest adjacent grade.

§ 112-20. Nonresidential structures (coastal high hazard areas).

In Zones V1-V30, VE and also Zone V if base flood elevations are available, new construction and substantial improvements of any nonresidential structure, together with attendant utility and sanitary facilities, shall have

the bottom of lowest member of the lowest floor elevated to or above two feet above the base flood elevation. Floodproofing of structures is not an allowable alternative to elevating the lowest floor to two feet above the base flood elevation in Zones V1-V30, VE and V.

§ 112-21. Manufactured homes and recreational vehicles.

The following standards in addition to the standards in §§ 112-15, General standards, and 112-16, standards for all structures, apply, as indicated, in areas of special flood hazard to manufactured homes and to recreational vehicles which are located in areas of special flood hazard:

A. Recreational vehicles.

(1) Recreational vehicles placed on sites within Zones A1-A30, AE, AH, V1-V30, V, and VE shall either:

(a) Be on site fewer than 180 consecutive days;

(b) Be fully licensed and ready for highway use; or

(c) Meet the requirements for manufactured homes in Subsections B, C and D.

(2) A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick-disconnect-type utilities and security devices and has no permanently attached additions.

B. A manufactured home that is placed or substantially improved in Zones A1-A30, AE, AH, V1-V30, V, and VE shall be elevated on a permanent foundation such that the lowest floor is elevated to or above two feet above the base flood elevation and is securely anchored to an adequately anchored foundation system to resist flotation, collapse and lateral movement. Elevation on piers consisting of dry stacked blocks is prohibited.

C. Within Zones A or V, when no base flood elevation data are available, new and substantially improved manufactured homes shall be elevated such that the manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade and are securely anchored to an adequately anchored foundation system to resist flotation, collapse or lateral movement. Elevation on piers consisting of dry stacked blocks is prohibited.

D. Within Zone AO, the floor shall be elevated above the highest adjacent grade at least as high as the depth number specified on the Flood Insurance Rate Map enumerated in § 112-6 (at least two feet if no depth number is specified). Elevation on piers consisting of dry stacked blocks is prohibited.

ARTICLE VI
Variance Procedure

§ 112-22. Appeals board.

A. The Zoning Board of Appeals as established by the Town of Stony Point shall hear and decide appeals and requests for variances from the requirements of this chapter.

B. The Zoning Board of Appeals shall hear and decide appeals when it is alleged there is an error in any requirement, decision, or determination made by the Local Administrator in the enforcement or administration of this chapter.

C. Those aggrieved by the decision of the Zoning Board of Appeals may appeal such decision to the Supreme Court pursuant to Article 78 of the Civil Practice Law and Rules.

D. In passing upon such applications, the Zoning Board of Appeals shall consider all technical evaluations, all relevant factors, standards specified in other sections of this chapter and:

(1) The danger that materials may be swept onto other lands to the injury of others;

(2) The danger to life and property due to flooding or erosion damage;

(3) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;

(4) The importance of the services provided by the proposed facility to the community;

(5) The necessity to the facility of a waterfront location, where applicable;

(6) The availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;

(7) The compatibility of the proposed use with existing and anticipated development;

(8) The relationship of the proposed use to the comprehensive plan and floodplain management program of that area;

(9) The safety of access to the property in times of flood for ordinary and emergency vehicles;

(10) The costs to local governments and the dangers associated with conducting search and rescue operations during periods of flooding;

(11) The expected heights, velocity, duration, rate of rise and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site; and

(12) The costs of providing governmental services during and after flood conditions, including search and rescue operations, maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems and streets and bridges.

E. Upon consideration of the factors of Subsection D and the purposes of this chapter, the Zoning Board of Appeals may attach such conditions to the granting of variances as it deems necessary to further the purposes of this chapter.

F. The local administrator shall maintain the records of all appeal actions including technical information and report any variances to the Federal Emergency Management Agency upon request.

§ 112-23. Conditions for variances.

A. Generally, variances may be issued for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood elevation, providing items (1) through (12) in § 112-22D have been fully considered. As the lot size increases beyond the one-half acre, the technical justification required for issuing the variance increases.

B. Variances may be issued for the repair or rehabilitation of historic structures upon determination that:

(1) The proposed repair or rehabilitation will not preclude the structure's continued designation as an historic structure; and

(2) The variance is the minimum necessary to preserve the historic character and design of the structure.

C. Variances may be issued by a community for new construction and substantial improvements and for other development necessary for the conduct of a functionally dependent use provided that:

(1) The criteria of Subsections A, D, E and F of this section are met; and

(2) The structure or other development is protected by methods that minimize flood damages during the base flood and create no additional threat to public safety.

D. Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.

E. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

F. Variances shall only be issued upon receiving written justification of:

(1) A showing of good and sufficient cause;

(2) A determination that failure to grant the variance would result in exceptional hardship to the applicant; and

(3) A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public or conflict with existing local laws or ordinances.

G. Any applicant to whom a variance is granted for a building with the lowest floor below the base flood elevation shall be given written notice over the signature of a community official that the cost of flood insurance will be commensurate with the increased risk resulting from lowest floor elevation.

§ 112-24. Exemptions from required variance for certain zoning provisions ("Zoning Relief Act").

A. A structure, except for manufactured homes, located in a special flood hazard area (SFHA), that has noncomplying bulk and/or is occupied by a nonconforming use, that is destroyed or damaged to the extent of 75% or more of the last full value as shown in the records located in the Town Assessor's office (excluding the assessed valuation of the land thereof), by flooding as a result of a storm event or other disaster that is the subject of a declaration of emergency by the New York State Office of Emergency Management, shall be deemed to be damaged less than 75% for the purposes of the provisions of § 215-95E.

B. The provisions of Subsection A above shall not be deemed to permit reconstruction or repair of a previously existing one-family home into a multifamily home, or other similar modification of use. Any such modification(s) shall require compliance with any and all applicable provisions of the Town Code and appropriate approvals from the Town.

C. Where a structure, including a structure occupied with a nonconforming use or having noncomplying bulk described in Subsection A, located in a special flood hazard area (SFHA) is being reconstructed or repaired, such structure shall be permitted to exceed the minimum building height restriction otherwise applicable to such structure under Chapter 215 of the Code of the Town of Stony Point, without the need for variance, only if:

(1) Such structure is repaired/reconstructed to the same height as existed prior to such damage or destruction, excluding from such measurement any required increase in elevation of such structure under the provisions of this chapter; and

(2) The necessity to exceed the height restriction is solely due to the required increase in elevation of the structure under the provisions of this chapter.

(3) Any such increase in elevation of a structure pursuant to the provisions of this chapter shall be to the minimum extent necessary to achieve compliance with this chapter.

Chapter 209

WATERFRONT CONSISTENCY

§ 209-1. Title.

This chapter will be known as the "Town of Stony Point Waterfront Consistency Law."

§ 209-2. Authority and purpose.

A. This chapter is adopted under the authority of the Municipal Home Rule Law and the Waterfront Revitalization of Coastal Areas and Inland Waterways Act of the State of New York (Article 42 of the Executive Law).

B. The purpose of this chapter is to provide a framework for agencies of the Town of Stony Point to consider the policies and purposes contained in the Local Waterfront Revitalization Program (LWRP) when reviewing applications for actions or direct agency actions located in the coastal area and to assure that such actions and direct actions are consistent with said policies and purposes.

C. It is the intention of the Town of Stony Point that the preservation, enhancement and utilization of the natural and man-made resources of the unique coastal area of the town take place in a coordinated and comprehensive manner to ensure a proper balance between natural resources and the need to accommodate population growth and economic development. Accordingly, this chapter is intended to achieve such a balance, permitting the beneficial use of coastal resources while preventing loss of living estuarine resources and wildlife; diminution of open space areas or public access to the waterfront; erosion of shoreline; impairment of scenic beauty; losses due to flooding, erosion and sedimentation; or permanent adverse changes to ecological systems.

D. The substantive provisions of this chapter shall only apply while there is in existence a Town Local Waterfront Revitalization Program which has been adopted in accordance with Article 42 of the Executive Law of the State of New York.

§ 209-3. Definitions.

As used in this chapter, the following terms shall have the meanings indicated:

ACTIONS —

A. Either Type I or unlisted actions as defined in SEQRA regulations (6 NYCRR 617.2) which are undertaken by an agency and which include:

(1) Projects or physical activities, such as construction or other activities that may affect the environment by changing the use, appearance or condition of any natural resource or structure, that:

(a) Are directly undertaken by an agency;

(b) Involve funding by an agency; or

(c) Require one or more new or modified approvals from an agency or agencies.

(2) Agency planning and policy-making activities that may affect the environment and commit the agency to a definite course of future decisions.

(3) Adoption of agency rules, regulations and procedures, including local laws, codes, ordinances, executive orders and resolutions, that may affect the environment.

(4) Any combinations of the above.

B. This chapter does not apply to Type II excluded or exempt actions as defined in the SEQRA regulations 6 NYCRR Part 617.

AGENCY — Any board, agency, department, office, other body or officer of the Town of Stony Point.

COASTAL AREA — That portion of New York State coastal waters and adjacent shorelands as defined in Article 42 of the Executive Law which is located within the boundaries of the Town of Stony Point, as shown on the Coastal Area Map on file in the office of the Secretary of State and as delineated in the Town of Stony Point Local Waterfront Revitalization Program.

COASTAL ASSESSMENT FORM (CAF) — The form, contained in Appendix A,[1] used by an agency to assist it in determining the consistency of an action with the Local Waterfront Revitalization Program.

CONSISTENT — That the action will fully comply with the LWRP policy standards and conditions and, whenever practicable, will advance one or more of them.

DIRECT ACTIONS — Actions planned and proposed for implementation by an agency, such as but not limited to a capital project, rule-making, procedure-making and policy-making.

LOCAL WATERFRONT REVITALIZATION PROGRAM (LWRP) — The Local Waterfront Revitalization Program of the Town of Stony Point, approved by the Secretary of State pursuant to the Waterfront Revitalization of Coastal Areas and Inland Waterways Act (Executive Law, Article 42), a copy of which is on file in the office of the Clerk of the Town of Stony Point.

§ 209-4. Waterfront Advisory Committee.

1. **Editor's Note: Appendix A is on file in the Clerk's office.**

A. A Committee is created and shall be hereafter known as the "Town of Stony Point Waterfront Advisory Committee" (hereafter "Committee"). The Committee is authorized to review and make recommendations to appropriate agencies regarding the consistency of proposed actions with the LWRP policy standards and conditions.

B. The Town Board of the Town of Stony Point is hereby authorized to appoint five persons to said Committee, all of whom shall be residents of the town. Of the members of the Committee first appointed, one shall hold office for a term of one year, one for a term of two years, one for a term of three years, one for a term of four years and one for a term of five years from and after his or her appointment. Their successors shall be appointed for the term of five years from and after the expiration of the terms of their predecessors in office. Vacancies shall be filled by the Town Board by appointment for the unexpired term. Members may be removed by the Town Board for cause and after public hearing.

C. The Town Board shall annually appoint one Committee member to serve as Chairperson of the Committee. Upon failure of the Town Board to appoint a Chairperson, the members of the Committee are to elect a Chairperson.

D. The Committee shall have the power to adopt rules of procedure for the conduct of business within its jurisdiction, including but not limited to rules of attendance and conduct for the members themselves.

E. The Committee is empowered to receive and expend such funds as may be appropriated by the Town Board for expenses of the Committee. The Committee shall serve without compensation.

§ 209-5. Review of actions.

A. Whenever a proposed action is located in the town's coastal area, an agency shall, prior to approving, funding or undertaking the action, make a determination that it is consistent with the LWRP policy standards and conditions set forth in Subsection G herein.

B. Whenever an agency receives an application for approval or funding of an action or as early as possible in the agency's formulation of a direct action to be located in the coastal area, the applicant or, in the case of a direct action, the agency, shall prepare a coastal assessment form (CAF) to assess the consistency of the proposed action.

C. The agency shall refer a copy of the completed CAF to the Committee within 10 days of its submission and, prior to making its determination, shall consider the recommendation of the Committee with reference to the consistency of the proposed action.

D. After referral from an agency, the Committee shall consider whether the proposed action is consistent with the LWRP policy standards and conditions set forth in Subsection G herein. The Committee shall require the applicant to submit all completed applications, CAF's and

any other information deemed to be necessary to its consistency recommendations.

E. Recommendation.

(1) The Committee shall render its written recommendation to the agency within 30 days following referral of the CAF from the agency, unless extended by mutual agreement of the Committee and the applicant or, in the case of direct action, the agency. The recommendation shall indicate whether, in the opinion of the Committee, the proposed action is consistent with or inconsistent with one or more of the LWRP policy standards or conditions and shall elaborate, in writing, the basis for its opinion.

(2) The Committee shall, along with its consistency recommendation, make any suggestions to the agency concerning modification of the proposed action to make it consistent with the LWRP policy standards and conditions or to greater advance them.

(3) In the event that the Committee's recommendation is not forthcoming within the specified time, the referring agency shall make its decision without the benefit of the Committee's recommendation.

F. The agency shall make the determination of consistency based on the CAF, the Committee's recommendation and such other information as is deemed to be necessary in its determination. The agency shall issue its determination within 30 days following receipt of the Committee's recommendation and submission by the applicant of any additional required information. The agency shall have the authority, in its finding of consistency, to impose practicable and reasonable conditions on an action to ensure that it is carried out in accordance with this chapter.

G. Actions to be undertaken within the coastal area shall be evaluated for consistency in accordance with the following LWRP policy standards and conditions, which are derived from and further explained and described in Section III of the Town of Stony Point LWRP, a copy of which is on file in the Town Clerk's office and available for inspection during normal business hours. Agencies which undertake direct actions shall consult Section IV of the LWRP in making their consistency determination. The action shall be consistent with the policy to:

(1) Revitalize the deteriorated and underutilized waterfront areas of Stony Point (Policies 1, 1A, 1B and 1C).

(2) Retain and promote commercial and recreational water-dependent uses (Policies 2, 2A, 2B and 2C).

(3) Strengthen the economic base and small harbor character of the Stony Point waterfront by encouraging the development and enhancement of traditional maritime uses and activities (Policies 4, 4A and 4B).

(4) Ensure that development occurs where adequate public infrastructure is available to reduce health and pollution hazards (Policies 5, 5A, 5B and 5C).

(5) Expedite local permit procedures and use performance standards for development within the waterfront area (Policy 6).

(6) Protect significant and locally important fish and wildlife habitats from human disruption and chemical contamination (Policies 7, 7A, 7B, 7C and 8).

(7) Encourage and expand commercial fishing facilities to promote commercial and recreational fishing opportunities (Policies 9, 9A and 10).

(8) Minimize flooding and erosion hazards through nonstructural means, carefully selected, long-term structural measures and appropriate siting of structures (Policies 11, 12, 13, 14, 15, 15A, 16 and 17).

(9) Safeguard economic, social and environmental interests in the coastal area when major actions are undertaken (Policy 18).

(10) Maintain and improve public access to the shoreline and to water-related recreational facilities while protecting the environment (Policies 1, 1A, 1B, 1C, 2, 2A, 2B, 2C, 9, 9A, 19, 19A, 19B, 19C, 20, 20A, 20B, 20C, 21, 21A, 21B, 21C, 21D, 22 and 22A).

(11) Protect and restore historic and archaeological resources (Policies 23 and 23A).

(12) Protect and upgrade scenic resources (Policies 24, 24A, 25, 25A, 25B and 25C).

(13) Site and construct energy facilities in a manner in which will be compatible with the environment and contingent upon the need for a waterfront or water location (Policies 27, 30, 31, 35, 36, 38, 39, 40, 41, 42, 43 and 44).

(14) Prevent ice management practices which could damage significant fish and wildlife and their habitat (Policy 28).

(15) Protect surface and groundwater from direct and indirect discharge of pollutants and from overuse (Policies 30, 31, 32, 33, 34, 34A, 35, 36, 37, 38, 39, 40 and 44).

(16) Perform dredging and dredge spoil in a manner protective of natural resources (Policies 15, 15A and 35).

(17) Handle and dispose of solid and hazardous wastes and effluents in a manner which will not adversely affect the environment (Policies 34, 34A, 36 and 39).

(18) Protect air quality (Policies 41, 42 and 43).

(19) Protect freshwater wetlands (Policy 44).

H. Written findings on inconsistent actions.

(1) If the agency determines that the action would not be consistent with one or more of the LWRP policy standards and conditions, such action shall not be undertaken unless the agency makes a written finding with respect to the proposed action that:

(a) Reasonable alternatives exist which would permit the action to be undertaken in a manner which will not substantially hinder the achievement of such LWRP policy standards and conditions.

(b) The action would be undertaken in a manner which will minimize all adverse effects on such LWRP policy standards and conditions.

(c) The action will advance one or more of the other LWRP policy standards and conditions.

(d) The action will result in an overriding town, regional or state-wide public benefit.

(2) Such a finding shall constitute a determination that the action is consistent with the LWRP policy standards and conditions.

I. Each agency shall maintain a file for each action made the subject of a consistency determination, including any recommendations received from the Committee. Such files shall be made available for public inspection upon request.

§ 209-6. Enforcement; stop-work order.

The Town Zoning Enforcement Officer shall be responsible for enforcing this chapter. No work or activity on a project in the coastal area which is subject to review under this chapter shall be commenced or undertaken until the Zoning Enforcement Officer has been presented with a written determination from an agency that the action is consistent with the town's LWRP policy standards and conditions. In the event that an activity is not being performed in accordance with the local law or any conditions imposed thereunder, the Zoning Enforcement Officer shall issue a stop-work order, and all work shall immediately cease. No further work or activity shall be undertaken on the project so long as a stop-work order is in effect.

§ 209-7. Penalties for offenses.

A. A person who violates any of the provisions of or who fails to comply with any decision or conditions imposed by this chapter shall have committed a violation, punishable by a fine not exceeding $500 for a conviction of a first offense and punishable by a fine of $1,000 for a conviction of a second or subsequent offense. For the purpose of

conferring jurisdiction upon courts and judicial officers, each week of continuing violation shall constitute a separate additional offense.

B. The Town Attorney is authorized and directed to institute any and all actions and proceedings necessary to enforce this chapter. Any civil penalty shall be in addition to and not in lieu of any criminal prosecution and penalty.

Appendix J: Geotechnical Investigation Report

Geotechnical Report
For
The Breakers
Stony Point, New York

File No. 3171

Prepared For:

Allied Drilling Inc.

Prepared By:

Daniel G Loucks, PE
NYSPE 068389

22 August 2018

INTRODUCTION:

The subsurface investigation for the proposed Breakers Apartment Complex, Stony Point, New York has been completed. Allied Drilling Inc of Sparkill, New York has completed a total of 42 soil borings at the site in the preliminary phase and recent phase of the subsurface investigation. Boring 1 was not performed due to access difficulties. The logs of these borings, along with a location diagram, have been included in the appendix of this report.

It is my understanding that the proposed construction will include five, 4-story buildings located approximately as indicated on the boring location diagram. The buildings will have a lower reinforced concrete bearing-wall design, below the required flood protection elevation with the upper residential levels having a wood frame design.

The maximum column loadings will range from 60 to 70 kips. Bearing wall loads will range from 3 to 4 kips per foot of wall. The settlement tolerances are normal. Settlement tolerances are considered to include up to 1 inch of total settlement and 3/4 inch of differential settlement between column locations.

The first floor will be established at least at elevation 11. Depending on the existing elevations and building location this will require that the lower portion of the structure will be constructed of reinforced concrete up to the first floor level. At this time, it is not known whether the concrete structure will be filled with soils to support the first floor or whether the first floor will be structurally supported.

The purpose of this report is to describe the investigation conducted and the results obtained; to analyze and interpret the data obtained; and to make recommendations for the design and construction of the feasible foundation types and earthworks for the project. The recommendations contained in this report are based on the information that was provided up to the date the report was completed. Any changes in the design of the project or changes to the recommendations provided in this report should be brought to my attention to determine if there needs to be any revision of the geotechnical recommendations. I am not responsible for any changes made to the recommendations provided in this report unless I have provided written approval of the changes.

The scope of my services has been limited to coordinating the boring and laboratory investigation, analyzing the soils information, and providing a geotechnical report with foundation recommendations and seismic site classifications as per NYS Building Code. Required depth of footing for scour protection should be provided by qualified others. Environmental aspects of the project as well as grading and site design should be performed by qualified others.

FIELD INVESTIGATION PROCEDURES:

The borings were extended by means of 4.0 inch ID, hollow-steel casing and by using various cutting bits using circulating drilling fluid to remove the cuttings from the casing.

Representative samples were obtained from the boring holes by means of the split-spoon sampling procedure performed in accordance with ASTM D 1586. The standard penetration values obtained from this procedure have been indicated on the soil boring logs.

Soil samples obtained from these procedures were examined in the field, sealed in containers, and shipped to the laboratory for further examination, classification and testing, as applicable.

During the investigation, water level readings were obtained at various times where water accumulated in the boring hole. The water level readings, along with an indication of the time of the reading relative to the boring procedure, have been indicated on the soil boring logs.

In addition to the field boring investigation, the soil engineer visited the site to observe the surface conditions.

LABORATORY INVESTIGATION:

Some samples were examined in the laboratory by the soil engineer and classified according to the Unified Soil Classification System. In this system, the soils are visually classified according to texture and plasticity. The appropriate group symbol is indicated on the soil boring logs. Other samples were not available for review. Drillers logs have been provided for these boring locations.

Samples exhibiting significant percentages of fine-grained soils or organic materials were subjected to moisture content testing. This testing was performed in accordance with ASTM D 2216-71. Organic content test was performed in accordance with ASTM specification D-2974. The results of these tests have been included in the appendix of the report.

Samples exhibiting significant cohesion were tested with a calibrated, spring-loaded, penetrometer. This test is used to estimate the unconfined compressive strength of the soil sample by measuring the soil's resistance to the penetration of the penetrometer needle. The results of these tests are listed on the boring logs.

Atterberg limit tests were performed on representative samples in accordance with ASTM D 4318. The results of these tests are included in the appendix of this report.

SITE CONDITIONS:

At the time of my site visit I observed that the ground surface at the site sloped very gently down to the east or towards the river. The majority of the ground surface was covered with sand and gravel and the area is used as parking for cars and storage for boats.

SUBSURFACE CONDITIONS:

The specific subsurface conditions encountered at each boring location are indicated on the individual soil boring logs. However, to aid in the evaluation of this data, I have prepared a generalized description of the soil conditions based on the boring data. Ground surface elevations as shown on the boring logs, when available, have be estimated from the existing topographic mapping as shown on the site plan provided to this office.

The borings generally encountered an upper layer of uncontrolled fill that extended to between approximately 1 and 15 feet below the existing ground surface. In most of the borings this uncontrolled fill consists of sand with varying amounts of gravel, silt/clay and lesser amounts of brick, concrete, ash and organics. In borings B-15 and B-16 a layer of cobble/boulder

fill was encountered between approximately 6 and 12 feet below the ground surface. In borings B-9, B-38, B-40 and B-41 organic silt and peat soils were encountered below the upper uncontrolled fill. These organic soils extended to between approximately 8 and 23 feet below the existing ground surface. At boring B-39, located near these organic soils, a layer of cobbles and boulders were encountered to a depth of 15 feet were refusal was encountered in this uncontrolled fill.

Beneath this uncontrolled fill and organic soils are layered sand, silt and clay soils. These soils are loose to very dense/soft to stiff and extend to the bottom of the borings at between 17 and 52 feet below the existing ground surface.

GROUNDWATER CONDITIONS:

Based on the groundwater levels observed during the boring investigation, the moisture condition of the samples recovered from the boring holes and coloration of the soil samples, I judge that the groundwater level was located below depth of 2 feet.

Perched groundwater tables may occur at higher elevations in the soil profile due to groundwater being retained by layers or lenses of silt or clay soils.

Some fluctuation in hydrostatic groundwater levels and perched water conditions should be anticipated with variations in the seasonal rainfall, river levels, tides and surface runoff.

It should be noted that the groundwater levels were obtained during the drilling procedure. Actual water levels may vary at the time of construction. Some groundwater could be encountered in soil layers labeled moist to wet on the boring logs.

ANALYSIS AND RECOMMENDATIONS:

I have labeled the proposed buildings on the boring location diagram to aid in providing foundation recommendations. Depending on the building location, I have provided some different foundation recommendations for some buildings based on the variations in the subsurface conditions to provide the most cost effective recommendations for the foundation design.

In general, the borings for buildings 1, 3 and 4 encountered uncontrolled fill at most boring locations, but the depth of this uncontrolled fill at most boring locations was 4 foot or less, except borings B-25 and B-26 where the fill extended to approximately 6 feet below the existing ground surface. This uncontrolled fill is generally granular with no significant amounts of organics. For these buildings, the bottom of footing would be required to extend to 4 foot for frost embedment, which, based on the boring information would place the bottom of the footing on virgin soils at most locations. As noted there may be a few locations where some additional over-excavation would be required, but it appears that this would be limited. Crushed stone and layered geotextiles could be used as controlled fill where necessary to limit dewatering where these uncontrolled fill soils would require removal. In the areas between the footing locations the upper 1 foot of uncontrolled fill should be removed, the subgrade proof rolled and a minimum of 1 foot of crushed stone with geotextiles placed. If the proof rolling encountered soft areas additional over-excavation may be required. With this approach it is my opinion that spread footing foundations could be used to support the proposed buildings.

For the proposed building 2, deeper cobble/boulder fill was encountered in the western end of the proposed building. This fill extended to between approximately 11 and 12 feet below the existing ground surface and no significant amounts of organics was encountered in this uncontrolled fill. This uncontrolled fill is medium dense to very dense. The borings performed in the remaining portions of the building encountered two feet or less uncontrolled fill. Based on the boring data this uncontrolled fill is medium dense to very dense and does not contains significant amounts of organics, but with any uncontrolled fill there may be pockets of poorer material. Because of this I recommend that the upper 1 foot of uncontrolled fill be removed and the subgrade proof rolled as recommended for building 1, 3 and 4. Any soft spots would be removed. But because some of the coarser uncontrolled fill would remain, I recommend that a mat foundation be used to support the proposed building in case there is non-uniform bearing due to firmer or softer pockets of soils. The mat foundation will allow the building loads to be distributed more evenly throughout the building footprint and allow the foundation to bridge over possible softer pockets.

At the proposed building 5 location organic soils were encountered. Peat and organic silt was encountered in the majority of borings and the peat layer extended to a depth of approximately 23 feet below the existing ground surface in boring B-38. This peat is highly compressible and if loaded would result in greater than normal settlements for the proposed building. The depth of the organic soils also would not allow them to be economically removed and replaced. Also, in my opinion soil improvement techniques such as dynamic compaction and aggregate piers would not provide adequate improvement. Because of these conditions, I recommend that this building be supported on pile foundations that extend to the non-organic virgin soils.

Site Work:

I have included some site work recommendations above for all the buildings except building 5. Below, I have provided more specific site work recommends for these buildings.

The proposed construction areas should be cleared and grubbed and all organic topsoil and vegetation along with a minimum of 1 foot of the existing uncontrolled fill and debris. The subgrade should be proof-rolled with a 10-ton static roller and the proof rolling should be observed by the soil engineer. This proof rolling will compact the subgrade and reveal the presence of soft spots. Any soft spots should be excavated and backfilled with controlled fill material.

The removal of all uncontrolled fill for the proposed footings, should extend to a minimum horizontal distance past the edge of the footings equal to half the depth that the fill extends under the footing. This is equal to a 1:2 (H:V) slope down from the outer edge of the footing to the virgin soil. In proposed building 2 all the uncontrolled fill does not have to be removed.

A way to stabilize a spongy, but suitable, virgin, subgrade would be to spread a reinforcement or separation type of geo-textile (Mirafi 600X or approved equal) on the subgrade and follow with a lift of clean uniform crushed stone. The thickness of the controlled crushed stone fill can range from 1.0 to 2.5 feet, as necessary, to achieve a working mat upon which to construct the footings. If uniform crushed stone is used as

controlled fill a layer of geotextile should be placed between the crushed stone and any sand/gravel controlled fill or virgin soil.

A method for stabilizing spongy areas of the subgrade would be to improve the drainage by use of properly designed sump pit and pump and vacuum well point dewatering systems. Using these methods, the local groundwater table maybe able to be lowered sufficiently to aid in stabilizing the subgrade surface. If large quantities of water are encountered vacuum well point dewatering maybe required. The need of a well point or any other type of dewatering program should be evaluated by the contractor before starting construction and be designed by a qualified dewatering contractor or hydrologist.

A fourth way to stabilize subgrade areas, which are soft and spongy, would be to roll in coarse fill such as brick waste or cobbles or crushed rock materials. Such material should be thoroughly rolled in to be sure that the voids are filled completely with fines.

For the proposed building 5, no special site work would be required for the proposed building. Placement of some fill may be required to raise the site and/or provide access for the pile driving equipment.

Controlled Fill:

Before any controlled fill is placed the site should be inspected to verify that the site has been prepared according to the recommendations contained in this report as required by the NYS Building Code Section 1704.7.1.

Controlled fill can consist of non-organic, imported soils free of debris and having a maximum particle size of 4 inches. A gradation and proctor should be performed on the proposed soil and submitted to me for approval. Approved, properly placed and compacted material can be used as controlled fill within the proposed building footprint. Free draining controlled fill material should be placed as recommended in this report. Approved imported soils should not be used in these locations where free draining controlled fill is recommended unless approved by me.

Controlled, relatively clean, granular fill can be spread in lifts not exceeding 12 inches in loose thickness. These materials should be compacted to a minimum of 95 percent of the maximum ASTM Specification D 1557-91 density, modified proctor.

On-site soils should not be used as controlled fill in the building footprint.

If crushed stone is used as controlled fill it should have a layer of geotextile with a minimum tensile strength of 200 lbs should be placed between the stone and existing soils. The stone should be placed in lifts not exceeding 12 inches in thickness and should be compacted with a minimum of 5 passes of a vibratory roller rated at 5 tons or larger. Weathered shale or crushed shale should not be used as controlled fill within the proposed building area.

Free Draining Controlled Fill Material: Naturally or artificially graded mixture of sand, natural or crushed stone or gravel conforming to NYS DOT Item 304-2.03, Type 4 or 2 as follows:

U.S. Sieve No.	Percent Passing by Weight
2 inch	100
1/4 inch	30-65
No. 40	5-40
No. 200	0-10

NYS DOT Table 703-4, Size 2 crushed stone, clean, durable, angular, and of uniform quality throughout:

U.S. Sieve No.	Percent Passing by Weight
1 ½ inch	100
1 inch	90-100
1/2 inch	0-15

All controlled fill should be free of organic and/or frozen material.

Free-draining controlled fill should have less than 10 percent fines passing the #200 sieve.

I recommend performing one field density test for every 2,000 square feet of controlled fill placed, within the overlaying building footprint, but in no case fewer than three tests per lift.

I recommend that for foundation wall and footing backfill that in each compacted backfill layer have at least one field in place density test for each 50 feet or less of wall or footing length, but not fewer than two tests along a wall face or footing be performed per lift.

Proper placement and compaction of backfill along exterior portions of foundation walls should be provided, especially in locations where there are sidewalks or building entries. Proper placement of backfill materials can reduce possible settlements and the use of properly designed backfill and drainage can reduce possible frost heave movements.

Results of the field compaction test results should be sent to my office for review. Copies of the results of soil gradation tests should also be provided to me for review and approval.

Building Foundations:

I recommend that the proposed building structures 1, 3 and 4 be supported by spread footing foundations resting on firm virgin, inorganic, soils or on controlled fill which, in turn, rests on these virgin materials. Footings can be designed for a maximum, net, allowable soil bearing pressure of 3000 psf.

I recommend that the proposed building structure 2 be supported by a mat foundation resting on a minimum of 1 foot of crushed stone controlled fill which, in turn, rests on approved proof rolled existing materials. The mat can be designed for a maximum, net, allowable soil bearing pressure of 1500 psf or a modulus of subgrade reaction of 100 psi per inch.

The soil engineer should observe the footing subgrade at the beginning of the project or if soil conditions change to verify the allowable bearing pressure of the soil encountered.

Loads from adjacent footings or structures should be assumed to distribute based on the elastic theory. Typical Boussinesq charts can be used to approximate loads at various depths and locations due to adjacent structures.

A minimum footing width of 2.0 feet is recommended for load bearing strip footings. Isolated footings should be at least 3.0 feet wide.

Exterior footings or footings in unheated areas should have a minimum of 4.0 feet of embedment for protection from frost action. Interior footings should have a minimum embedment of 2.0 feet below finished grade to develop the bearing value of the soils.

All walls that retain soil on only one side should have a drain tile placed along the base of the wall. The drain tile should be a minimum of 4 inches in diameter, surrounded by a minimum of 6 inches of properly graded washed sand or crushed stone wrapped with a non-woven filter fabric with a maximum apparent opening size of 70 and a minimum trapezoid tearing strength of 100 lbs. The drain tile should drain to a stormwater sewer, daylight, or a sump equipped with a pump.

The wall should then be backfilled with a controlled, well graded, free-draining granular material. The material should extend away from the wall a horizontal distance of two-thirds the height of the fill being placed. The upper 1 foot of material should be a fairly impermeable material to shed surface water and should be pitched away from the building to provide proper drainage.

If these procedures are used, a static lateral soil pressure of 40 psf per foot of retained soil can be used for design of the wall. This static, active lateral soil pressure is based on a moist unit weight of 125 pcf and an angle of internal friction of 32 degrees. A wall soil friction angle of 18 degrees and a coefficient of base sliding of 0.4 can also be used for design.

If the retaining wall is braced or if the deflection is limited prior to backfilling so the active soil pressure is not achieved, a static, at-rest lateral soil pressure of 63 psf per foot of retained soil can be used for design.

To resist overturning and sliding a static lateral passive pressure of 250 psf per foot of embedment can be used, provided foundations are backfilled with controlled fill. This static, passive pressure resistance value has been reduced from the calculated full passive pressure because of stress/strain characteristics of the soil. To develop the full, calculated resistance a certain amount of movement or deflection in the structure is required. The amount of movement required to generate this resistance generally greater then is acceptable for structures. I therefore recommend that the full passive pressure not be used.

The passive resistance of the upper two feet of soil, not in floor slab areas, should be ignored due to surface effects of frost and moisture.

Any surcharge loading of existing adjacent building foundations or other adjacent structures/utilities should be addressed by the structural engineer using Boussinesq charts.

For the proposed building structure 5, I recommend that the building be supported by pile foundations that extend a minimum of 10 feet to virgin non-organic soils. Based on the boring data this could result in pile lengths of between 20 and 35 feet to extend a minimum of 10 feet past organics soils. In my opinion pipe pile or timber pile could be used. I recommend that a minimum of three test piles be driven, one near boring B-38, to more accurately determine the possible variations in the length of piles and design capacity. Additional test pile recommendations have been provided below.

If steel pipe piles are used to properly support the proposed building and floor slabs, I recommend that 12-inch diameter hollow pipe piles, later filled with concrete, with a minimum wall thickness of 0.375 inches and plate welded to the end be designed for a maximum design load of 30 tons. Based on the ENR formula, piles should be driven with a minimum hammer energy of 20,000 ft-lbs and minimum pile set of 3 blows per inch for 3 consecutive inches to achieve this capacity. Piles maybe driven with slightly different driving criteria, depending on availability of driving equipment and the results of the test piles.

If timber piles are used I recommend that piles with a minimum of an 8-inch tip diameter be used. All piles should meet ASTM D-25 and AWPA C3 criteria. Piles should be designed for a maximum allowable stress of 1.2 ksi. This allows an 8-inch timber pile to be designed for a maximum design load of 30 tons. Piles should be driven with a minimum hammer energy of 18,000 ft-lbs or other hammer appropriate to limit pile top compression to not greater than 1.6 ksi to a minimum of 3 blows per inch for two consecutive inches or practical refusal. A driving shoe should be attached to all timber piles. Any broken pile should be removed and replaced.

The final driving criteria should be established by using a pile driving analyzer to determine that capacity of the pile has been achieved and the required depth and the required set to achieve that capacity. I recommend that three (3) test/production piles should be tested with a pile driving analyzer and dynamic test methods as per ASTM D-4945. The pile driving analyzer (PDA) analysis should include CAPWAP evaluations to simulate static loading. The testing should be performed and evaluated by a qualified geotechnical engineer whose company has a minimum of 10 years experience performing the testing procedure. It may be possible after the testing has been completed, that the driving criteria or capacity of the pile will need to be adjusted. Based on the soil boring information, I estimate that piles could extend to depths of between approximately 25 to 40 feet, from the proposed elevation of the pile cap, depending on the subsurface conditions. All piles should extend a minimum of 10 feet past existing organic soils as indicated in the soil boring logs.

I estimate that the driven pipe piles can be used within 25 feet of existing structures, provided the vibrations during installation do not exceed the limits that could cause damage to adjacent structures. During installation the vibrations should be monitored to verify that the vibrations do not exceed limits that could cause damage to adjacent structures.

Pile driving should be performed by an experienced pile driving contractor with a minimum of 10 years experience driving piles. Pile driving records should be provided for all test and production piles. The installations of all piles should be observed by a qualified engineer or technician under the supervision of an engineer. Vibration monitoring should be provided during the installation of all driven piles. The

monitoring should be performed continuously with the ability to notify the pile driving contractor if limits for possible damage to adjacent structures are being exceeded while they are driving the piles. As previously noted a preconstruction assessment of all adjacent structures should be performed by qualified others to properly document existing conditions.

Floor Slabs:

Concrete floor slabs can be designed to rest on controlled fills resting on approved proof rolled existing materials for buildings 1, 3 and 4; on controlled fill soils that are resting on the mat foundation for building 2; or structurally supported for building 5 or any other building if controlled fill is not placed in the building footprint. A 6-inch layer of well-graded, free-draining, granular material should be placed beneath the floor slab to provide drainage, act as a capillary break, and to provide better and more uniform support for all location where the floor slab is placed on controlled fill.

A modulus of subgrade reaction of 150 psi per inch can be used to design concrete slabs resting on a minimum of 6 inches of free draining controlled fill that in turn rests on virgin soils. A modulus of subgrade reaction of 100 psi per inch can be used to design exterior slabs or pavements resting on a minimum of 12 inches of free draining controlled fill. This reduced value is recommended due to seasonal variations that occur due to frost in the soils.

Exterior concrete pavements will experience some frost heave movements during the winter and spring. If these movements are not acceptable then a minimum of 4.0 feet of approved subbase material and properly designed drains would be required below the concrete pavements or sidewalks. The use of properly designed footing drains can also be used to reduce possible frost heave movements adjacent to the proposed structure.

If the moisture levels of floor slab areas are critical additional drainage materials and vapor barriers will be required beneath the floor slab. Also, the moisture content of the subbase soils should be carefully monitored to prevent excess water from saturating these subbase soils before the floor slab is poured. This aspect of the design should be performed by qualified others.

Seismic Conditions:

The potential seismic conditions at the proposed site have been investigated using the information provided in the NYS Building Code Section 1613 and the boring information obtained during my investigation.

Based on the soil boring information and my experience it is my opinion that the Site Soil Classification (Table 1615.1.1) could be assumed to be D. Using figures 1615 (1 and 2) and the USGS 2012/2015 IBC Seismic Design Provisions, I estimate that the MCE spectral acceleration (S_{MS}) at short periods is 40.7 and the MCE spectral acceleration (S_{M1}) at 1 s period is 17.0.

The probabilistic ground motion values are expressed in %g for rock site class B. Peak ground accelerations in the upper soil profile may vary. If specific peak ground accelerations or shear wave velocities are required for the upper soil profile additional testing would be required. If it is determined by the structural engineer that the Seismic Design Category is D, E or F additional geotechnical recommendations can be provided.

The soil borings and my analysis do not indicate any significant potential seismic hazards such as liquefaction, sensitive clays, weakly cemented soil or surface rupture.

It may be possible to improve the seismic site classification with additional site specific testing. Seismic cone penetration testing can be used to directly determine the shear wave velocity of the varying soils at the site. These shear wave velocity values can then be directly used to determine the seismic site classification. I can provide additional information on this testing procedure if requested.

CONSTRUCTION PROCEDURES AND PROBLEMS:

The NYS Building Code Section 17 requires special inspections and follow up reports. These inspections should be performed to verify compliance with the recommendations contained in this report.

All excavations of more than a few feet should be sheeted and braced or laid back to prevent sloughing in of the sides.

Excavations should not extend below adjacent footings or structures unless properly designed sheeting and bracing or underpinning is installed.

Footing subgrades should be tamped to compact any soil disturbed during the excavation process. A flat plate should be placed on the end of the excavator or backhoe bucket to reduce disturbance of the footing subgrade. If over excavation of subgrades are required to remove cobbles or possibly boulders, then the over excavated areas should be filled with controlled granular fill or lean concrete.

A layer of geotextile (min. tensile strength of 200 lbs) and 8 to 24 inches of crushed stone may be required in footing excavations to prevent disturbance of the virgin subgrade during wet weather. The stone and fabric should be placed as described in the *Controlled Fill* section of this report.

Sump-pit and sump-pump-type dewatering will be required in excavations or low areas during wet weather or if groundwater is encountered. If large quantities of groundwater are encountered vacuum wells maybe required to stabilize the subgrade soils. All excavations should be dewatered to a minimum of 1 foot below the bottom of the excavation. All dewatering programs should be designed to prevent bottom heave. Any dewatering program should be performed with properly designed filtration protection on all pumps to prevent loss of ground.

Any areas of the pavement subgrades that become disturbed during construction should be removed and replaced with subbase materials.

Subgrades should be kept from freezing during construction.

Water, snow, and ice should not be allowed to collect and stand in excavations or low areas of the subgrade.

Some obstacles, including foundations and utilities and possibly cobbles/boulders, may be encountered in excavations.

Pile driving should be performed by an experienced pile driving contractor with a minimum of 10 years experience driving piles. Pile driving records should be provided for all test and production piles. The installations of all piles should be

observed by a qualified engineer or technician under the supervision of an engineer. Vibration monitoring should be provided during the installation of all driven piles. The monitoring should be performed continuously with the ability to notify the pile driving contractor if limits for possible damage to adjacent structures are being exceeded while they are driving the piles. As previously noted a preconstruction assessment of all adjacent structures should be performed by qualified others to properly document existing conditions.

Design and construction procedures should include measures to limit the potential for slab curl and vapor transmission. The shrinkage properties of the concrete should be controlled and the curing of the concrete controlled. Differential shrinkage between the top and bottom of the slabs could otherwise result in curling of the slabs. The control of vapor transmission through the slab should also be addressed. These phenomena may be only indirectly related to soil conditions. The architect/ structural engineer should address this aspect of the design.

Current American Concrete Institute recommendations for the design and construction of floor slabs and the control of shrinkage, slab curl and vapor transmission can be referred to.

The Breakers
Stony Point, New York
File No. 3171

CONTENTS OF APPENDIX:

1. General Notes
2. Boring Location Diagram
3. Boring Logs
4. Liquefaction Analysis Results
5. Seismic Settlement Analysis Results
6. 2012/2015 IBC Seismic Design Values
7. Laboratory Test Results
8. Unified Soil Classification System
9. Soil Use Chart
10. General Qualifications

GENERAL NOTES

DRILLING & SAMPLING SYMBOLS

SS : Split-Spoon — 1¾ " I.D., 2" O.D., except where noted
S : Shelby Tube — 2" O.D., except where noted
PA : Power Auger Sample
DB : Diamond Bit — NX: BX: AX:
CB : Carboloy Bit — NX: BX: AX:
OS : Osterberg Sampler — 3" Shelby Tube
HS : Housel Sampler
WS : Wash Sample
FT : Fish Tail
RB : Rock Bit
WO : Wash Out

Standard "N" Penetration: Blows per foot of a 140 pound hammer falling 30 inches on a 2 inch OD split spoon, except where noted

WATER LEVEL MEASUREMENT SYMBOLS

WL : Water Level
WCI : Wet Cave In
DCI : Dry Cave In
WS : While Sampling
WD : While Drilling
BCR : Before Casing Removal
ACR : After Casing Removal
AB : After Boring

Water levels indicated on the boring logs are the levels measured in the boring at the times indicated. In pervious soils, the indicated elevations are considered reliable ground water levels. In impervious soils the accurate determination of ground water elevations is not possible in even several day's observation, and additional evidence on ground water elevations must be sought.

CLASSIFICATION

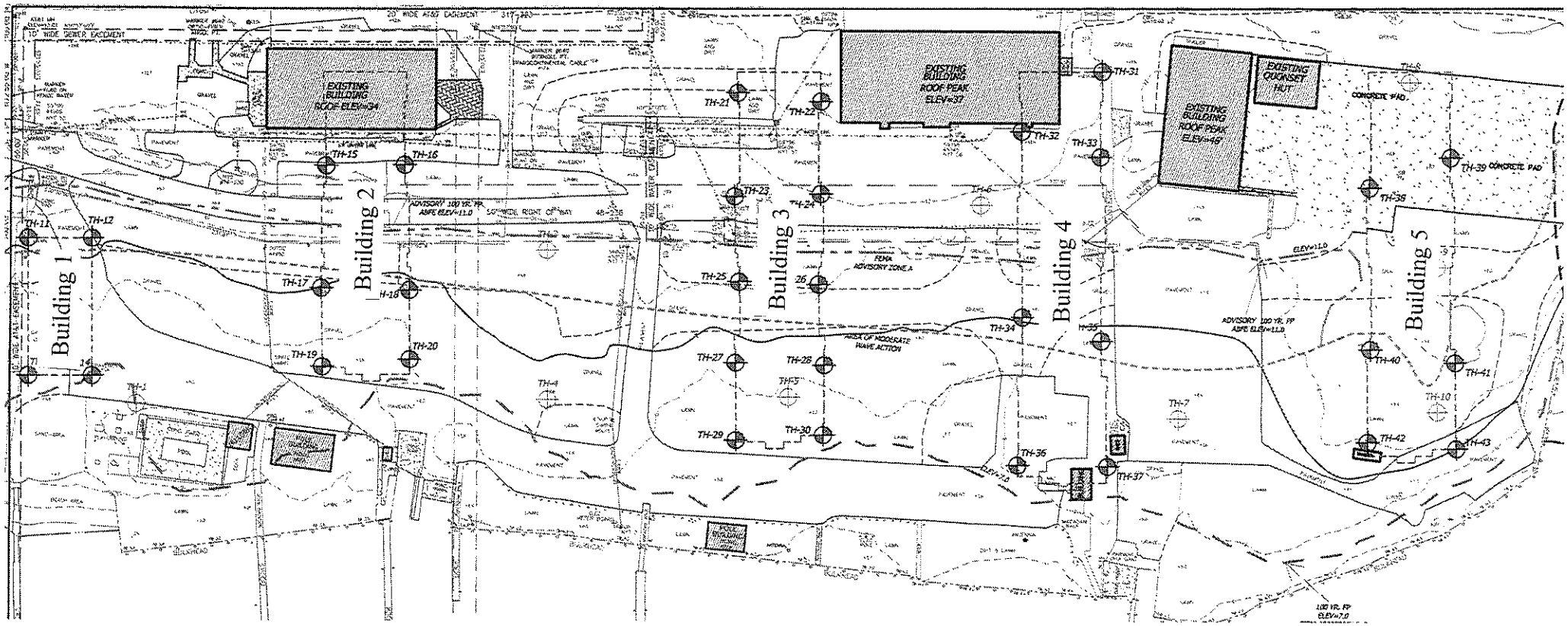
COHESIONLESS SOILS

"Trace"	: 1% to 10%	
"Trace to some"	: 10% to 20%	
"Some"	: 20% to 35%	
"And"	: 35% to 50%	
Loose	: 0 to 9 Blows	or equivalent
Medium Dense	: 10 to 29 Blows	or equivalent
Dense	: 30 to 59 Blows	or equivalent
Very Dense	: ≥60 Blows	or equivalent

COHESIVE SOILS

If clay content is sufficient so that clay dominates soil properties, then clay becomes the principle noun with the other major soil constituent as modifiers: i.e., silty clay. Other minor soil constituents may be added according to classification breakdown for cohesionless soils; i.e., silty clay, trace to some sand, trace gravel.

Soft	: 0.00 — 0.59 tons/ft^2
Medium	: 0.60 — 0.99 tons/ft^2
Stiff	: 1.00 — 1.99 tons/ft^2
Very Stiff	: 2.00 — 3.99 tons/ft^2
Hard	: ≥ 4.00 tons/ft^2


Building 1
Building 2
Building 3
Building 4
Building 5
EXISTING BUILDING ROOF ELEV=34
EXISTING BUILDING ROOF PEAK ELEV=37
EXISTING BUILDING ROOF PEAK ELEV=45
EXISTING QUONSET HUT
CONCRETE PAD
TH-11
TH-12
TH-15
TH-16
TH-17
TH-18
TH-19
TH-20
TH-21
TH-22
TH-23
TH-24
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TH-30
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TH-32
TH-33
TH-34
TH-35
TH-36
TH-37
TH-38
TH-39
TH-40
TH-41
TH-42
TH-43
TH-1
TH-4
TH-5
TH-6
TH-7
TH-10
ADVISORY 100 YR. FP ABFE ELEV=11.0
FEMA ADVISORY ZONE A
AREA OF MODERATE WAVE ACTION
100 YR. FP ELEV=7.0

BORING LOG

BORING NO: 2

PROJECT NAME: The Breakers

LOCATION: Stoney Point, New York

DATE STARTED/COMPLETED: April 2017

ENGINEER/ARCHITECT:

DRILLING METHOD: Rotary Wash

DRILL RIG TYPE: Truck Mount

HAMMER WEIGHT: 140 Lbs

DROP: 30 Inches

CASING DIAMETER: OD/ID: 4.0 inch ID

WATER LEVEL DEPTH: 4.5 ft **TIME:** WS

FILE NUMBER: 3171

OFFSET: None

SURFACE ELEV.: 6.2 ft +/-

DRILL CONTRACTOR: Allied Drilling Inc.

Daniel G Loucks PE
PO Box 163
Ballston Spa, New York 12020
Phone: 518-371-7622
Fax: 518-383-2069

DEPTH	Sample Number	Sample Type	BLOW COUNTS per 6 inches	"N" Value	Recovery	DESCRIPTION
1	1	SS	12-10-6-7	16		Fine to Coarse Sand, some Gravel, trace to some Clayey Silt, Brown/Gray, Wet, Medium Dense (SM) FILL
2						
3	2	SS	6-6-6-7	12		Clayey Silt, trace to some Clay, trace Sand, Brown, Moist to Wet, Medium Dense/Stiff (ML)(CL)(SM) Occasional Clay and Thin Sand Layers Unconfined Compressive Strength = 1.25 tsf
4						
5	3	SS	6-7-7-9	14		
6						
7	4	SS	6-8-10-11	18		
8						
9	5	SS	6-6-5-4	11		
10						
11	6	SS	4-2-3-3	5		Silt, trace to some Fine Sand, trace Clay, Brown, Moist to Wet, Loose/Medium Stiff (ML)(CL) Occasional Thin Clay Layers
12						
13		RB				Silt, some Clay, trace Fine Sand, Gray, Moist to Wet, Medium Dense/Sift (ML)(CL) Layered Unconfined Compressive Streength = 0.3 tsf
14						
15						
16	7	SS	7-8-8-10	16		
17						
18		RB				Silt, trace Fine Sand, Clay, Gray, Wet, Medium Dense/Soft (ML)(CL) Occasional Thin Clay Layers
19						
20						
21	8	SS	11-12-10-14	22		
22						
23		RB				Fine Sand and Silt, Brown, Wet, Dense (SM-ML)
24						
25						
26	9	SS	14-20-29-36	49		
27						

BORING LOG

BORING NO: 2

SHEET 2 of 2

PROJECT NAME: The Breakers

LOCATION: Stoney Point, New York

DATE STARTED/COMPLETED: April 2017

ENGINEER/ARCHITECT:

DRILLING METHOD: Rotary Wash

DRILL RIG TYPE: Truck Mount

HAMMER WEIGHT: 140 Lbs

DROP: 30 Inches

CASING DIAMETER: OD/ID: 4.0 inch ID

WATER LEVEL DEPTH: 4.5 ft **TIME:** WS

FILE NUMBER: 3171

OFFSET: None

SURFACE ELEV.: 6.2 ft +/-

DRILL CONTRACTOR: Allied Drilling Inc.

Daniel G Loucks PE
PO Box 163
Ballston Spa, New York 12020
Phone: 518-371-7622
Fax: 518-383-2069

DEPTH	Sample Number	Sample Type	BLOW COUNTS per 6 inches	"N" Value	Recovery	DESCRIPTION
28, 29, 30		RB				Fine Sand and Silt, Brown, Wet, Dense (SM-ML)
31, 32	10	SS	17-21-23-29	44		
33, 34, 35		RB				
36, 37	11	SS	20-16-17-21	33		
38, 39, 40		RB				Fine Sand, trace to some Silt, Brown/Gray, Wet, Dense (SM)
41, 42	12	SS	21-22-18-21	40		
43, 44, 45		RB				
46, 47	13	SS	19-22-26-35	48		
48, 49, 50		RB				Clayey Silt, trace to some Clay, trace Fine Sand, Brown, Moist to Wet, Very Dense Very Dense/Medium Stiff (ML)(CL) Occasional Clay Layers
51, 52	14	SS	42-46-54-69	100		
53, 54						End of Boring at 52.0 Feet

BORING LOG

BORING NO: 3

SHEET 1 of 1

PROJECT NAME: The Breakers

LOCATION: Stoney Point, New York

DATE STARTED/COMPLETED: April 2017

ENGINEER/ARCHITECT:

DRILLING METHOD: Rotary Wash

DRILL RIG TYPE: Truck Mount

HAMMER WEIGHT: 140 Lbs

DROP: 30 Inches

CASING DIAMETER: OD/ID: 4.0 inch ID

WATER LEVEL DEPTH: 3.0 ft **TIME:** WS

FILE NUMBER: 3171

OFFSET: None

SURFACE ELEV.: 9.1 ft +/-

DRILL CONTRACTOR: Allied Drilling Inc.

Daniel G Loucks PE
PO Box 163
Ballston Spa, New York 12020
Phone: 518-371-7622
Fax: 518-383-2069

DEPTH	Sample Number	Sample Type	BLOW COUNTS per 6 inches	"N" Value	Recovery	DESCRIPTION
1	1	SS	7-10-10-9	20		Fine to Coarse Sand, trace to some Gravel, Clayey Silt, Dark Brown, Moist, Medium Dense (SM) FILL
3	2	SS	6-5-6-6	11		Fine to Medium Sand, some Clayey Silt, Dark Brown, Wet, Medium Dense (SM) FILL
5	3	SS	6-6-7-7	13		Clayey Silt, some Sand, Brown/Gray, Wet, Medium Dense (ML) (SM) Layered
7	4	SS	7-10-11-14	21		Silt, trace Fine Sand, Brown/Gray, Wet, Medium Dense (ML)
9	5	SS	10-12-16-21	28		Silt, trace Sand, Clay, Moist to Wet, Medium Dense (ML)(SM)(CL) Occasional Thins Sand and Clay Layers
11 13 14		RB				Clayey Silt, trace Fine Sand, Brown/Gray, Moist to Wet, Very Dense (ML)
16	6	SS	26-36-40-39	76		
17						End of Boring at 17.0 Feet

BORING LOG

BORING NO: 4

SHEET 1 of 1

PROJECT NAME: The Breakers

LOCATION: Stoney Point, New York

DATE STARTED/COMPLETED: April 2017

ENGINEER/ARCHITECT:

DRILLING METHOD: Rotary Wash

DRILL RIG TYPE: Truck Mount

HAMMER WEIGHT: 140 Lbs

DROP: 30 Inches

CASING DIAMETER: OD/ID: 4.0 inch ID

WATER LEVEL DEPTH: 3.0 ft **TIME:** WS

FILE NUMBER: 3171

OFFSET: None

SURFACE ELEV.: 6.6 ft +/-

DRILL CONTRACTOR: Allied Drilling Inc.

Daniel G Loucks PE
PO Box 163
Ballston Spa, New York 12020
Phone: 518-371-7622
Fax: 518-383-2069

DEPTH	Sample Number	Sample Type	BLOW COUNTS per 6 inches	"N" Value	Recovery	DESCRIPTION
1	1	SS	11-10-6-7	16		Fine to Medium Sand, some Gravel, trace to some Clayey Silt, trace Asphalt, Dark Brown, Moist, Medium Dense (SM) FILL
2						
3	2	SS	8-7-6-6	13		Fine to Medium Sand, some Clayey Silt, Brown, Moist, Medium Dense (SM) FILL
4						Fine to Medium Sand, some Clayey Silt, Brown, Moist, Medium Dense (SM) Possible Fill
5	3	SS	6-7-7-5	14		
6						
7	4	SS	5-7-7-9	14		Fine to Coarse Sand, trace to some Clayey Silt, Brown, Moist to Wet, Medium Dense (SM)
8						
9	5	SS	6-5-5-5	10		Clayey Silt, trace to some Clay, Brown/Gray, Moist to Wet, Medium Dense/Medium Stiff (ML)(CL) Occasional Thin Clay Layers
10						
11						
12		RB				
13						Clayey Silt, trace to some Clay, trace Fine Sand, Gray, Moist to Wet, Medium Dense/Soft (ML)(CL)(SM) Layered Occasional Thin Sand Layers
14						
15						
16	6	SS	6-6-7-8	13		
17						End of Boring at 17.0 Feet
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						

BORING LOG

BORING NO: 5

PROJECT NAME: The Breakers

LOCATION: Stoney Point, New York

DATE STARTED/COMPLETED: April 2017

ENGINEER/ARCHITECT:

DRILLING METHOD: Rotary Wash

DRILL RIG TYPE: Truck Mount

HAMMER WEIGHT: 140 Lbs

DROP: 30 Inches

CASING DIAMETER: OD/ID: 4.0 inch ID

WATER LEVEL DEPTH: 2.5 ft **TIME:** WS

FILE NUMBER: 3171

OFFSET: None

SURFACE ELEV.: 6.0 ft +/-

DRILL CONTRACTOR: Allied Drilling Inc.

Daniel G Loucks PE
PO Box 163
Ballston Spa, New York 12020
Phone: 518-371-7622
Fax: 518-383-2069

DEPTH	Sample Number	Sample Type	BLOW COUNTS per 6 inches	"N" Value	Recovery	DESCRIPTION
1	1	SS	4-6-6-7	12		Fine to Coarse Sand, trace to some Gravel, Clayey Silt, trace Brick, Roots, Dark Brown, Moist, Medium Dense (SM) FILL
2–3	2	SS	10-12-14-17	26		Brick, trace to some Sand, Clayey Silt, Reddish Brown, Moist to Wet, Medium Dense (GM) FILL
4–5	3	SS	11-12-14-21	26		Fine to Medium Sand, some Clayey Silt, Brick, Reddish Brown/Gray, Wet, Medium Dense (SM) FILL
6–7	4	SS	17-20-15-16	35		Fine to Medium Sand, trace Silt, Brown, Wet, Dense (SM-SP)
8–9	5	SS	11-11-12-16	23		Clayey Silt, trace to some Clay, trace Fine Sand, Brown, Moist to Wet, Medium Dense/Medium Stiff (ML)(CL) Occasional Thin Clay Layers
10–13		RB				
14–15						Silt, some Clay, trace to some Fine Sand, Brown/Gray, Moist to Wet, Medium Dense/Soft (ML)(CL)(SM) Layered
16–17	6	SS	17-11-12-16	23		
18–19		RB				
20–21	7	SS	12-16-20-22	36		Clayey Silt and Fine Sand, Brown/Gray, Moist to Wet, Dense (ML-SM)
22–24		RB				
25–26	8	SS	7-20-21-30	41		
27						

BORING LOG

BORING NO: 5

PROJECT NAME: The Breakers

LOCATION: Stoney Point, New York

DATE STARTED/COMPLETED: April 2017

ENGINEER/ARCHITECT:

DRILLING METHOD: Rotary Wash

DRILL RIG TYPE: Truck Mount

HAMMER WEIGHT: 140 Lbs

DROP: 30 Inches

CASING DIAMETER: OD/ID: 4.0 inch ID

WATER LEVEL DEPTH: 2.5 ft **TIME:** WS

FILE NUMBER: 3171

OFFSET: None

SURFACE ELEV.: 6.0 ft +/-

DRILL CONTRACTOR: Allied Drilling Inc.

Daniel G Loucks PE
PO Box 163
Ballston Spa, New York 12020
Phone: 518-371-7622
Fax: 518-383-2069

DEPTH	Sample Number	Sample Type	BLOW COUNTS per 6 inches	"N" Value	Recovery	DESCRIPTION
28, 29, 30		RB				Clayey Silt and Fine Sand, Brown/Gray, Moist to Wet, Dense (ML-SM)
31, 32	9	SS	16-21-24-28	45		
33, 34, 35		RB				Fine Sand, some Silt, Brown/Gray, Wet, Dense (SM)
36, 37	10	SS	19-23-26-34	49		
38, 39, 40		RB				Fine Sand and Silt, Brown, Wet, Very Dense (SM-ML)
41, 42	11	SS	30-38-48-61	86		
43, 44, 45		RB				Fine Sand, some Silt, Brown/Gray, Wet, Very Dense (SM)
46, 47	12	SS	40-46-52-61	98		
48, 49, 50		RB				
51, 52	13	SS	30-46-56-71	100+		
53, 54						End of Boring at 52.0 Feet

BORING LOG

BORING NO: 7

PROJECT NAME: The Breakers

LOCATION: Stoney Point, New York

DATE STARTED/COMPLETED: April 2017

ENGINEER/ARCHITECT:

DRILLING METHOD: Rotary Wash

DRILL RIG TYPE: Truck Mount

HAMMER WEIGHT: 140 Lbs

DROP: 30 Inches

CASING DIAMETER: OD/ID: 4.0 inch ID

WATER LEVEL DEPTH: 4.5 ft **TIME:** WS

FILE NUMBER: 3171

OFFSET: None

SURFACE ELEV.: 6.3 ft +/-

DRILL CONTRACTOR: Allied Drilling Inc.

Daniel G Loucks PE
PO Box 163
Ballston Spa, New York 12020
Phone: 518-371-7622
Fax: 518-383-2069

DEPTH	Sample Number	Sample Type	BLOW COUNTS per 6 inches	"N" Value	Recovery	DESCRIPTION
						Asphalt Pavement
1	1	SS	16-12-10-10	22		Fine to Coarse Sand, some Gravel, trace to some Clayey Silt, Gray, Moist, Medium Dense (SM) FILL
2						
3	2	SS	10-12-10-11	22		Fine to Coarse Sand, trace Silt, Brown, Moist to Wet, (SM-SP)
4						Fine to Coarse Sand and Clayey Silt, Gray, Moist to Wet, Medium Dense (SM-ML)
5	3	SS	6-7-7-6	14		Silt and Clay, Gray, Moist to Wet, Loose/Soft to Medium Stiff (ML)(CL) Layered Unconfined Compressive Strength = 0.2 to 0.5 tsf
6						
7	4	SS	4-3-3-3	6		
8						
9	5	SS	3-2-3-2	5		
10						
11	6	SS	6-10-12-12	22		Clayey Silt, trace to some Clay, Sand, Brown/Gray, Moist to Wet, Medium Dense/Soft (ML)(CL)(SM) Occasional Clay and Sand Layers
12						
13		RB				
14						
15						
16	7	SS	10-12-14-17	26		
17						
18		RB				Clayey Silt, some Clay, trace Sand, Brown, Moist to Wet, Dense (ML)(CL)(SM) Layered, Occasional Thin Sand Layers
19						
20						
21	8	SS	12-16-17-21	33		
22						
23		RB				Fine Sand, trace to some Silt, Brown/Gray, Wet, Dense (SM)
24						
25						
26	9	SS	17-22-19-16	41		
27						

BORING LOG

BORING NO: 7

PROJECT NAME: The Breakers

LOCATION: Stoney Point, New York

DATE STARTED/COMPLETED: April 2017

ENGINEER/ARCHITECT:

DRILLING METHOD: Rotary Wash

DRILL RIG TYPE: Truck Mount

HAMMER WEIGHT: 140 Lbs

DROP: 30 Inches

CASING DIAMETER: OD/ID: 4.0 inch ID

WATER LEVEL DEPTH: 4.5 ft **TIME:** WS

FILE NUMBER: 3171

OFFSET: None

SURFACE ELEV.: 6.3 ft +/-

DRILL CONTRACTOR: Allied Drilling Inc.

Daniel G Loucks PE
PO Box 163
Ballston Spa, New York 12020
Phone: 518-371-7622
Fax: 518-383-2069

DEPTH	Sample Number	Sample Type	BLOW COUNTS per 6 inches	"N" Value	Recovery	DESCRIPTION
28, 29, 30		RB				Fine Sand, trace to some Silt, Brown/Gray, Wet, Dense (SM)
31, 32	10	SS	14-15-17-19	32		
33, 34, 35		RB				
36, 37	11	SS	12-16-18-21	34		
38, 39, 40		RB				Fine to Medium Sand, trace Silt, Brown/Gray, Wet, Dense to Very Dense (SM-SP)
41, 42	12	SS	18-20-22-19	44		
43, 44, 45		RB				
46, 47	13	SS	21-29-36-40	65		
48, 49, 50		RB				Fine Sand, some Silt, Brown, Wet, Very Dense (SM)
51, 52	14	SS	52-62-66-77	100+		
53, 54						End of Boring at 52.0 Feet

BORING LOG

BORING NO: 9

SHEET 1 of 1

PROJECT NAME: The Breakers

LOCATION: Stoney Point, New York

DATE STARTED/COMPLETED: April 2017

ENGINEER/ARCHITECT:

DRILLING METHOD: Rotary Wash

DRILL RIG TYPE: Truck Mount

HAMMER WEIGHT: 140 Lbs

DROP: 30 Inches

CASING DIAMETER: OD/ID: 4.0 inch ID

WATER LEVEL DEPTH: 3.5 ft **TIME:** WS

FILE NUMBER: 3171

OFFSET: None

SURFACE ELEV.: 9.5 ft +/-

DRILL CONTRACTOR: Allied Drilling Inc.

Daniel G Loucks PE
PO Box 163
Ballston Spa, New York 12020
Phone: 518-371-7622
Fax: 518-383-2069

DEPTH	Sample Number	Sample Type	BLOW COUNTS per 6 inches	"N" Value	Recovery	DESCRIPTION
1	1	SS	11-12-10-9	22		Fine to Coarse Sand, some Gravel, trace to some Silt, Brown/Gray, Moist, Medium Dense (SM) FILL
3	2	SS	7-7-8-10	15		Fine Sand, some Clayey Silt, trace Gravel, Brick, Gray, Moist, Medium Dense (SM) FILL
5	3	SS	6-6-6-7	12		Organic Silt, Gray, Moist, Medium Stiff (OH)
7	4	SS	7-6-6-7	12		
9	5	SS	9-12-14-15	26		Fine Sand, trace to some Clayey Silt, Brown/Gray, Moist to Wet, Medium Dense (SM)
12		RB				Fine Sand, some Clayey Silt, Brown/Gray, Wet, Dense (SM)
16	6	SS	16-17-20-21	37		
17						End of Boring at 17.0 Feet

2 4 6 8 10 11 13 14 15 18 19 20 21 22 23 24 25 26 27

BORING LOG

BORING NO: 11

SHEET 1 of 1

PROJECT NAME: The Breakers

FILE NUMBER: 3171

LOCATION: Stoney Point, New York

OFFSET: None

DATE STARTED/COMPLETED: April 2017

SURFACE ELEV.: 7.0 +/- ft

ENGINEER/ARCHITECT:

DRILL CONTRACTOR: Allied Drilling Inc.

DRILLING METHOD: Rotary Wash

DRILL RIG TYPE: Truck Mount

HAMMER WEIGHT: 140 Lbs

DROP: 30 Inches

CASING DIAMETER: OD/ID: 4.0 inch ID

WATER LEVEL DEPTH: 2.5 **TIME:** WS

Daniel G Loucks PE
PO Box 163
Ballston Spa, New York 12020
Phone: 518-371-7622
Fax: 518-383-2069

DEPTH	Sample Number	Sample Type	BLOW COUNTS per 6 inches	"N" Value	Recovery	DESCRIPTION
1	1	SS	7-12-29-20	41		Topsoil
2						Fine to Coarse Sand, some Gravel, trace to some Clayey Silt, trace Brick, Concrete, Brown, Moist to Wet, Dense (SM) FILL
3	2	SS	16-17-10-11	27		
4						
5	3	SS	7-5-7-8	12		Fine Sand and Clayey Silt, trace Roots, Dark Brown, Moist to Wet, Medium Dense (SM-ML)
6						
7	4	SS	6-7-9-11	16		Fine Sand, some Clayey Silt, Dark Brown, Wet, Medium Dense (SM)
8						
9	5	SS	7-8-10-12	18		Fine Sand, some Silty Clay, Brown/Gray, Wet, Medium Dense (SC)
10						
11	6	SS	10-11-12-14	23		
12						
13		RB				Clayey Silt, trace to some Clay, trace Fine Sand, Dark Gray, Wet, Medium Dense/Soft (ML)(CL) Occasional Thin Clay Layers
14						
15						
16	7	SS	14-10-12-16	22		
17						
18		RB				
19						
20						
21	8	SS	10-12-16-19	28		
22						
23		RB				Clayey Silt, some Fine Sand, trace Clay, Dark Gray, Wet, Dense/Soft (ML)(CL) Occasional Thin Clay Layers
24						
25						
26	9	SS	11-14-19-25	33		
27						
28		RB				
29						
30						
31	10	SS	13-15-21-27	36		
32						

BORING LOG

BORING NO: 12

SHEET 1 of 1

PROJECT NAME: The Breakers

LOCATION: Stoney Point, New York

DATE STARTED/COMPLETED: April 2017

ENGINEER/ARCHITECT:

DRILLING METHOD: Rotary Wash

DRILL RIG TYPE: Truck Mount

HAMMER WEIGHT: 140 Lbs

DROP: 30 Inches

CASING DIAMETER: OD/ID: 4.0 inch ID

WATER LEVEL DEPTH: 3.0 ft **TIME:** WS

FILE NUMBER: 3171

OFFSET: None

SURFACE ELEV.: 7 +/- ft

DRILL CONTRACTOR: Allied Drilling Inc.

Daniel G Loucks PE
PO Box 163
Ballston Spa, New York 12020
Phone: 518-371-7622
Fax: 518-383-2069

DEPTH	Sample Number	Sample Type	BLOW COUNTS per 6 inches	"N" Value	Recovery	DESCRIPTION
1	1	SS	8-21-14-12	35		Fine to Coarse Sand, trace to some Silt, trace Roots, Brown, Moist, Dense (SM-SP) FILL
2						
3	2	SS	10-11-12-14	23		Fine to Medium Sand, trace to some Clayey Silt, Silty Clay, Brown, Moist to Wet, Medium Dense (SM-SC) FILL
4						
5	3	SS	7-7-8-10	15		Fine to Medium Sand, trace to some Silt, Brown/Gray, Wet, Medium Dense (SM)
6						
7	4	SS	6-5-6-9	11		
8						
9	5	SS	9-10-12-13	22		
10						
11	6	SS	10-16-20-18	36		
12						Silty Clay, trace Sand, Brown/Gray, Moist to Wet, Stiff (CL) Unconfined Compressive Strength = 1.5 tsf
13		RB				Clayey Silt, trace Sand, Gray, Wet, Medium dense (ML)
14						
15						
16	7	SS	10-10-10-12	20		
17						End of Boring at 17.0 Feet
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

BORING LOG

BORING NO: 13

SHEET 1 of 1

PROJECT NAME: The Breakers

LOCATION: Stoney Point, New York

DATE STARTED/COMPLETED: April 2017

ENGINEER/ARCHITECT:

DRILLING METHOD: Rotary Wash

DRILL RIG TYPE: Truck Mount

HAMMER WEIGHT: 140 Lbs

DROP: 30 Inches

CASING DIAMETER: OD/ID: 4.0 inch ID

WATER LEVEL DEPTH: 3.0 ft **TIME:** WS

FILE NUMBER: 3171

OFFSET: None

SURFACE ELEV.: 5 +/- ft

DRILL CONTRACTOR: Allied Drilling Inc.

Daniel G Loucks PE
PO Box 163
Ballston Spa, New York 12020
Phone: 518-371-7622
Fax: 518-383-2069

DEPTH	Sample Number	Sample Type	BLOW COUNTS per 6 inches	"N" Value	Recovery	DESCRIPTION
1–2	1	SS	17-48-10-11	58		Fine to Coarse Sand, some Gravel, trace to some Silt, trace Concrete, Brick, Dark Brown, Moist, Dense (SM) FILL
3–4	2	SS	7-10-12-14	22		Fine to Medium Sand, trace to some Clay, Brown, Moist to Wet, Medium Dense (SM)(CL) Possible Fill
5–6	3	SS	10-11-12-16	23		
7–8	4	SS	12-9-8-14	17		Fine to Medium Sand, trace to some Silt, Gray, Wet, Medium Dense (SM-SP)
9–10	5	SS	10-14-15-16	29		
11–12	6	SS	12-16-20-22	36		Fine to Medium Sand, trace to some Silty Clay, Gray, Moist to Wet, Dense (SC)
13–14–15		RB				
16–17	7	SS	17-20-21-26	41		
18–32						End of Boring at 17.0 Feet

BORING LOG

BORING NO: 14

SHEET 1 of 1

PROJECT NAME: The Breakers

LOCATION: Stoney Point, New York

DATE STARTED/COMPLETED: April 2017

ENGINEER/ARCHITECT:

DRILLING METHOD: Rotary Wash

DRILL RIG TYPE: Truck Mount

HAMMER WEIGHT: 140 Lbs

DROP: 30 Inches

CASING DIAMETER: OD/ID: 4.0 inch ID

WATER LEVEL DEPTH: 2.5 ft **TIME:** WS

FILE NUMBER: 3171

OFFSET: None

SURFACE ELEV.: 5 +/- ft

DRILL CONTRACTOR: Allied Drilling Inc.

Daniel G Loucks PE
PO Box 163
Ballston Spa, New York 12020
Phone: 518-371-7622
Fax: 518-383-2069

DEPTH	Sample Number	Sample Type	BLOW COUNTS per 6 inches	"N" Value	Recovery	DESCRIPTION
1–2	1	SS	10-21-18-16	39		Fine to Coarse Sand, trace to some Gravel, Clayey Silt, Brick, Dark Brown, Moist to Wet, Dense (SM) FILL
3–4	2	SS	10-11-11-14	22		Fine to Medium Sand, trace to some Clayey Silt, Brown, Moist to Wet, Medium Dense (SM)(ML) Occasional Clayey Silt Layers
5–6	3	SS	34-17-16-17	30		Fine to Medium Sand, some Clayey Silt, trace to some Clay, Brown, Wet, Dense/Medium Stiff (SM)(CL) Occasional Silt and Clay Layers
7–8	4	SS	15-15-22-19	37		
9–10	5	SS	13-12-24-28	36		Fine to Medium Sand, some Silty Clay, Gray, Moist to Wet, Dense (SC)
11–12	6	SS	22-27-36-33	53		Fine to Medium Sand, trace to some Clayey Silt, Gray, Wet, Dense (SM)
13–15		RB				Fine to Medium Sand, trace Silt, Gray, Wet, Loose to Medium Dense (SM-SP)
16–17	7	SS	3-5-3-6	8		
18–20		RB				
21–22	8	SS	7-7-3-5	10		
23–25		RB				
26–27	9	SS	7-9-11-15	20		
28–30		RB				Silt, trace Fine Sand, Brown, Wet, Dense (ML)
31–32	10	SS	20-21-26-25	47		

BORING LOG

BORING NO: 15

SHEET 1 of 1

PROJECT NAME: The Breakers

LOCATION: Stoney Point, New York

DATE STARTED/COMPLETED: April 2017

ENGINEER/ARCHITECT:

DRILLING METHOD: Rotary Wash

DRILL RIG TYPE: Truck Mount

HAMMER WEIGHT: 140 Lbs

DROP: 30 Inches

CASING DIAMETER: OD/ID: 4.0 inch ID

WATER LEVEL DEPTH: 3.0 ft **TIME:** WS

FILE NUMBER: 3171

OFFSET: None

SURFACE ELEV.: 10 +/- ft

DRILL CONTRACTOR: Allied Drilling Inc.

Daniel G Loucks PE
PO Box 163
Ballston Spa, New York 12020
Phone: 518-371-7622
Fax: 518-383-2069

DEPTH	Sample Number	Sample Type	BLOW COUNTS per 6 inches	"N" Value	Recovery	DESCRIPTION
1	1	SS	7-12-32-69	44		Fine to Coarse Sand, trace to some Silt, trace Gravel, Asphalt Pavement, Gray, Moist, Dense (SM) FILL
2	2			100+		
3		RB				Concrete, trace to some Sand, Silt, Gray, Moist, Very Dense (GM) FILL
4						
5	3	SS	7-8-100/.0	100+		Fine to Medium Sand, trace to some Silty Clay, Gray, Wet, Medium Dense (SC) FILL
		RB				
6	4			100+		Driller Notes Boulder/Cobble FILL
7		RB				
8	5			100+		
9		RB				
10	6			100+		
11						
12						
13		RB				Clayey Silt, trace Fine Sand, Gray, Wet, Medium Dense (ML)
14						
15						
16	7	SS	11-12-15-16	27		
17						End of Boring at 17.0 Feet
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

BORING LOG

BORING NO: 16

SHEET 1 of 1

PROJECT NAME: The Breakers

LOCATION: Stoney Point, New York

DATE STARTED/COMPLETED: April 2017

ENGINEER/ARCHITECT:

DRILLING METHOD: Rotary Wash

DRILL RIG TYPE: Truck Mount

HAMMER WEIGHT: 140 Lbs

DROP: 30 Inches

CASING DIAMETER: OD/ID: 4.0 inch ID

WATER LEVEL DEPTH: 3.0 ft **TIME:** WS

FILE NUMBER: 3171

OFFSET: None

SURFACE ELEV.: 11 +/- ft

DRILL CONTRACTOR: Allied Drilling Inc.

Daniel G Loucks PE
PO Box 163
Ballston Spa, New York 12020
Phone: 518-371-7622
Fax: 518-383-2069

DEPTH	Sample Number	Sample Type	BLOW COUNTS per 6 inches	"N" Value	Recovery	DESCRIPTION
1	1	SS	6-10-19-10	29		Clayey Silt, some Gravel, trace to some Sand, trace Organics, Brick, Dark Brown, Wet, Medium Dense (ML) FILL
2						
3	2	SS	7-6-7-9	13		Fine to Coarse Sand, some Gravel, trace to some Silt, trace Roots, Dark Brown/Gray, Moist, Medium Dense (SM) FILL
4						
5	3	SS	12-36-40-21	76		Fine to Medium Gravel and Sand, some Clayey Silt, trace Organics, Brick, Dark Gray, Wet, Dense to Very Dense (GM-SP) FILL
6						
7	4	SS	16-20-21-26	41		
8	5			100+		
9		RB				Driller Notes Boulder/Cobble Fill
10						
11	6	SS	100	100+		
12						Silt, trace to some Clay, trace Fine Sand, Gray, Wet, Medium Dense to Dense/Soft (ML)(CL) Occasional Clay Layers
13		RB				
14						
15						
16	7	SS	9-11-12-14	23		
17						
18		RB				
19						
20						
21	8	SS	12-14-16-20	30		
22						
23		RB				
24						
25						
26	9	SS	10-11-26-28	37		Silt, trace to some Fine Sand, trace Clay, Dark Gray, Wet, Dense (ML)(CL) Occasional Thin Clay Layers
27						
28		RB				
29						
30						
31	10	SS	17-21-26-30	47		
32						

BORING LOG

BORING NO: 17

SHEET 1 of 1

PROJECT NAME: The Breakers

LOCATION: Stoney Point, New York

DATE STARTED/COMPLETED: April 2017

ENGINEER/ARCHITECT:

DRILLING METHOD: Rotary Wash

DRILL RIG TYPE: Truck Mount

HAMMER WEIGHT: 140 Lbs

DROP: 30 Inches

CASING DIAMETER: OD/ID: 4.0 inch ID

WATER LEVEL DEPTH: 3.0 ft **TIME:** WS

FILE NUMBER: 3171

OFFSET: None

SURFACE ELEV.: 7 +/- ft

DRILL CONTRACTOR: Allied Drilling Inc.

Daniel G Loucks PE
PO Box 163
Ballston Spa, New York 12020
Phone: 518-371-7622
Fax: 518-383-2069

DEPTH	Sample Number	Sample Type	BLOW COUNTS per 6 inches	"N" Value	Recovery	DESCRIPTION
1	1	SS	29-14-26-19	30		Fine to Coarse Sand, some Gravel, Clayey Silt, Brown, Wet, Dense (SM) FILL
2, 3	2	SS	26-29-30-14	59		Fine to Medium Sand, some Clayey Silt, Brown, Moist, Dense (SM)
4, 5	3	SS	27-28-30-26	58		Fine to Medium Sand, trace to some Silt, Brown/Gray, Wet, Medium Dense to Dense (SM)
6, 7	4	SS	18-19-22-24	41		
8, 9	5	SS	16-15-11-12	26		
10, 11	6	SS	7-5-5-8	10		Fine to Medium Sand, some Silty Clay, Gray, Wet, Medium Dense (SC)
12, 13, 14		RB				Clayey Silt and Fine Sand, trace to some Clay, Brown, Wet, Dense to Very Dense/Soft (ML)(SM)(CL) Layered Occasional Thin Clay Layers
15, 16	7	SS	20-21-26-40	47		
17, 18, 19		RB				
20, 21	8	SS	28-30-31-36	61		
22, 23, 24		RB				
25, 26	9	SS	30-36-17-28	53		
27, 28, 29		RB				
30, 31	10	SS	20-24-28-30	52		
32						

BORING LOG

BORING NO: 18

SHEET 1 of 1

PROJECT NAME: The Breakers

LOCATION: Stoney Point, New York

DATE STARTED/COMPLETED: April 2017

ENGINEER/ARCHITECT:

DRILLING METHOD: Rotary Wash

DRILL RIG TYPE: Truck Mount

HAMMER WEIGHT: 140 Lbs

DROP: 30 Inches

CASING DIAMETER: OD/ID: 4.0 inch ID

WATER LEVEL DEPTH: 4.0 ft **TIME:** WS

FILE NUMBER: 3171

OFFSET: None

SURFACE ELEV.: 7 +/- ft

DRILL CONTRACTOR: Allied Drilling Inc.

Daniel G Loucks PE
PO Box 163
Ballston Spa, New York 12020
Phone: 518-371-7622
Fax: 518-383-2069

DEPTH	Sample Number	Sample Type	BLOW COUNTS per 6 inches	"N" Value	Recovery	DESCRIPTION
1	1	SS	4-5-7-8	12		Fine to Coarse Sand, some Clayey Silt, trace Gravel, Roots, Brown, Moist, Medium Dense (SM)
2 3	2	SS	5-7-7-9	14		Silty Clay, trace Fine Sand, Brown/Gray, Moist to Wet, Very Stiff (CL) Unconfined Compressive Strength = 2.5 tsf
4 5	3	SS	8-10-11-12	21		Silt, some Clay, trace Fione Sand, Gray, Wet, Medium Dense/Medium Stiff (ML)(CL) Layered Unconfined Compressive Strength = 0.8 tsf
6 7	4	SS	10-11-13-14	24		
8 9	5	SS	9-10-14-16	24		
10 11	6	SS	12-16-20-21	36		Silt, some Clay, Gray, Wet, Dense/Soft (ML)(CL) Layered
12 13 14		RB				Clayey Silt, trace to some Clay, Brown/Gray, Wet, Dense/Medium Stiff (ML)(CL) Occasional Clay Layers Unconfined Compressive Strength = 0.8 tsf
15 16	7	SS	19-21-26-31	47		
17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32						End of Boring at 17.0 Feet

BORING LOG

BORING NO: 19

SHEET 1 of 1

PROJECT NAME: The Breakers

LOCATION: Stoney Point, New York

DATE STARTED/COMPLETED: April 2017

ENGINEER/ARCHITECT:

DRILLING METHOD: Rotary Wash

DRILL RIG TYPE: Truck Mount

HAMMER WEIGHT: 140 Lbs

DROP: 30 Inches

CASING DIAMETER: OD/ID: 4.0 inch ID

WATER LEVEL DEPTH: 2.0 ft **TIME:** WS

FILE NUMBER: 3171

OFFSET: None

SURFACE ELEV.: 6 +/- ft

DRILL CONTRACTOR: Allied Drilling Inc.

Daniel G Loucks PE
PO Box 163
Ballston Spa, New York 12020
Phone: 518-371-7622
Fax: 518-383-2069

DEPTH	Sample Number	Sample Type	BLOW COUNTS per 6 inches	"N" Value	Recovery	DESCRIPTION
1	1	SS	10-26-41-18	67		Fine to Medium Sand and Gravel, trace Silt, Brown, Moist, Very Dense (SM-SP)(GM-GP) FILL
3	2	SS	10-11-14-9	25		Clayey Silt, some Clay, trace Fine Sand, Brown, Moist to Wet, Medium Dense (ML) (CL) Layered
5	3	SS	9-11-10-14	21		Fine Sand, trace to some Silt, Clay, Brown/Gray, Wet, Medium Dense/Stiff (SM)(CL) Occasional Clay Layers Unconfined Compressive Strength = 1.1 tsf
7	4	SS	9-10-12-13	22		Fine to Coarse Sand, trace Gravel, Silt, Gray, Wet, Medium Dense (SM-SP)
9	5	SS	8-10-10-12	20		
11	6	SS	11-12-14-17	26		
13		RB				Fine to Medium Sand, trace to some Gravel, Clayey Silt, Gray, Wet, Dense (SM)
16	7	SS	15-17-21-23	38		
17						End of Boring at 17 Feet

BORING LOG

BORING NO: 20

SHEET 1 of 1

PROJECT NAME: The Breakers

LOCATION: Stoney Point, New York

DATE STARTED/COMPLETED: April 2017

ENGINEER/ARCHITECT:

DRILLING METHOD: Rotary Wash

DRILL RIG TYPE: Truck Mount

HAMMER WEIGHT: 140 Lbs

DROP: 30 Inches

CASING DIAMETER: OD/ID: 4.0 inch ID

WATER LEVEL DEPTH: 3.0 ft **TIME:** WS

FILE NUMBER: 3171

OFFSET: None

SURFACE ELEV.: 6 +/- ft

DRILL CONTRACTOR: Allied Drilling Inc.

Daniel G Loucks PE
PO Box 163
Ballston Spa, New York 12020
Phone: 518-371-7622
Fax: 518-383-2069

DEPTH	Sample Number	Sample Type	BLOW COUNTS per 6 inches	"N" Value	Recovery	DESCRIPTION
1	1	SS	10-7-7-3	14		Silty Clay and Sand, trace Brick, Brown, Moist to Wet, Loose/Soft (SC-CL) FILL
2						
3	2	SS	10-11-7-7	18		Fine to Medium Sand, trace to some Clay, Brown, Moist to Wet, Medium Dense/Medium Stiff (SM)(CL) Occasional Clay Layers Unconfined Compressive Strength = 0.8 tsf
4						
5	3	SS	6-5-8-9	13		
6						
7	4	SS	7-6-7-18	13		Fine to Medium Sand, some Clayey Silt, Gray, Wet, Medium Dense (SM)(ML) Layered
8						
9	5	SS	10-11-12-14	23		Silt, some Clay, trace to some Sand, Brown Moist to Wet, Medium Dense/Soft (ML)(CL)(SM) Layered
10						
11	6	SS	12-14-15-17	29		
12						
13		RB				Fine Sand, some Silt, trace Clay, Brown, Moist to Wet, Dense to Very Dense (SM)(ML)(CL) Layered Occasional Thin Clay Layers
14						
15						
16	7	SS	44-48-53-64	100+		
17						
18		RB				
19						
20						
21	8	SS	21-26-30-35	56		
22						
23		RB				
24						
25						
26	9	SS	28-35-30-36	65		
27						
28		RB				
29						
30						
31	10	SS	37-36-30-33	66		
32						

Bus.: (845) 553-9200 Fax.: (845) 553-9199

ALLIED DRILLING, INC.

653 Main Street, Box 118, Sparkill, NY 10976-0118

BORING NO. B-21

SHEET 1 of 1

BORING LOG

PROJECT: The Breakers PROJECT NO.:

LOCATION: Hudson Drive, Stony Point, NY START DATE: 7/24/18

CLIENT: Eli Herskowitz FINISH DATE: 7/24/18

INSPECTOR: DRILLER: Vincent Gandolfo HELPER: Venancio Albanez RIG: Mobile B-61

			SOIL BLOWS / 6"					ROCK CORE			
			0"-6"	6"-12"	12"-18"	18"-24"		RUN (IN.)	REC. (IN.)	RQD %	SOIL/ROCK DESCRIPTION & REMARKS
	1	0/2	7	7	11	14				0/2	Sandy Fill Material
	2	2/4	16	11	8	9				2/4	Gray Silty Sand
										4/12	Clay with Some Fine Silt
	3	4/6	9	9	10	14					
	4	6/8	6	11	10	6				12/19	Brown-Gray Fine Silt, Some Clay
	5	8/10	13	18	21	27					
	6	10/12	12	13	21	17					
	7	15/17	9	12	10	15					
										19/25	Dark Brown Fine Sand
	8	20/22	4	4	5	8					
	9	25/27	3	15	3	4				25/32	Red Silty Sand
	10	30/32	14	12	12	20					EOB @ 32'

TOOLS & EQUIPMENT USED

CASING SIZE	SPOON SIZE
CASING HAMMER	SPOON HAMMER
HAMMER FALL - CASING	HAMMER FALL - SPOON
CORE BARREL USED	DRILLING MUD USED
CORE BIT USED	UNDISTURBED SAMPLER
AUGER SIZE	STANDBY TIME

MISCELLANEOUS ITEMS:

GROUND WATER DATA

DATE	TIME	DEPTH (FT.)
7/24/18	At Completion	4

OBSERVATION WELL

DEPTH (FT.)		SCREEN LENGTH (FT)

Bus.: (845) 553-9200 Fax.: (845) 553-9199

ALLIED DRILLING, INC.

653 Main Street, Box 118, Sparkill, NY 10976-0118

BORING NO. B-22

SHEET 1 of 1

BORING LOG

PROJECT: The Breakers PROJECT NO.:

LOCATION: Hudson Drive, Stony Point, NY START DATE: 7/24/18

CLIENT: Eli Herskowitz FINISH DATE: 7/24/18

INSPECTOR: DRILLER: Vincent Gandolfo HELPER: Venancio Albanez RIG: Mobile B-61

			SOIL BLOWS / 6"					ROCK CORE			
			0"-6"	6"-12"	12"-18"	18"-24"		RUN (IN.)	REC. (IN.)	RQD %	SOIL/ROCK DESCRIPTION & REMARKS
	1	1/3	4	3	5	4				0/3	Mottled Organic Silt and Rock Fragments (Fill)
	2	3/5	6	8	8	19				3/9	Brown Clay, Some Silt
	3	5/7	13	12	16	17					
	4	7/9	16	23	28	10				9/17	Brown Fine Silty Sand
	5	9/11	18	19	16	14					
											EOB @ 17'
	6	15/17	16	19	18	32					

TOOLS & EQUIPMENT USED	
CASING SIZE	SPOON SIZE
CASING HAMMER	SPOON HAMMER
HAMMER FALL - CASING	HAMMER FALL - SPOON
CORE BARREL USED	DRILLING MUD USED
CORE BIT USED	UNDISTURBED SAMPLER
AUGER SIZE	STANDBY TIME
MISCELLANEOUS ITEMS:	

GROUND WATER DATA		
DATE	TIME	DEPTH (FT.)
7/24/18	At Completion	4

OBSERVATION WELL		
DEPTH (FT.)		SCREEN LENGTH (FT)

Bus.: (845) 553-9200 Fax.: (845) 553-9199

ALLIED DRILLING, INC.

653 Main Street, Box 118, Sparkill, NY 10976-0118

BORING NO. B-23

SHEET 1 of 1

BORING LOG

PROJECT: The Breakers PROJECT NO.:

LOCATION: Hudson Drive, Stony Point, NY START DATE: 7/25/18

CLIENT: Eli Herskowitz FINISH DATE: 7/25/18

INSPECTOR: _____ DRILLER: Vincent Gandolfo HELPER: Venancio Albanez RIG: Mobile B-61

			SOIL BLOWS / 6"					ROCK CORE			SOIL/ROCK DESCRIPTION & REMARKS
			0"-6"	6"-12"	12"-18"	18"-24"		RUN (IN.)	REC. (IN.)	RQD %	
	1	0/2	25	27	16	16				0/2	Red-Brown Sand with Some Silt and Rock Fragments
	2	2/4	14	16	15	16				2/10	Gray-Brown Fine Silt Mixed with Some Clay
	3	4/6	18	20	22	25					
	4	6/8	15	12	14	20				10/14	Reddish Brown Silt, Some Sand and Clay
	5	8/10	12	11	17	22					
	6	10/12	8	21	34	36					
										14/17	Gray-Red Silt, Black Silt and Rock Fragments
	6	15/17	25	27	34	35					
											EOB @ 17'

TOOLS & EQUIPMENT USED	
CASING SIZE	SPOON SIZE
CASING HAMMER	SPOON HAMMER
HAMMER FALL - CASING	HAMMER FALL - SPOON
CORE BARREL USED	DRILLING MUD USED
CORE BIT USED	UNDISTURBED SAMPLER
AUGER SIZE	STANDBY TIME
MISCELLANEOUS ITEMS:	

GROUND WATER DATA		
DATE	TIME	DEPTH (FT.)
7/25/18	At Completion	4.5

OBSERVATION WELL		
DEPTH (FT.)		SCREEN LENGTH (FT)

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ALLIED DRILLING, INC.

653 Main Street, Box 118, Sparkill, NY 10976-0118

BORING NO. B-24

SHEET 1 of 1

BORING LOG

PROJECT: The Breakers PROJECT NO.:

LOCATION: Hudson Drive, Stony Point, NY START DATE: 7/24/18

CLIENT: Eli Herskowitz FINISH DATE: 7/24/18

INSPECTOR: DRILLER: Vincent Gandolfo HELPER: Venancio Albanez RIG: Mobile B-61

			SOIL BLOWS / 6"					ROCK CORE			
			0"-6"	6"-12"	12"-18"	18"-24"		RUN (IN.)	REC. (IN.)	RQD %	SOIL/ROCK DESCRIPTION & REMARKS
	1	0/2	8	4	6	8				0/2	Brown Coarse Sand with Rock Fragments
	2	2/4	22	18	12	15				2/4	Brown-Red Coarse Sand with Red Silt
	3	4/6	6	7	10	13				4/6	Gray Clay, Some Silt
	4	6/8	10	16	18	21				6/12	Red-Brown Silt with Some Gray Clay
	5	8/10	6	16	18	10				12/18	Red-Brown Silt with Gray Clay
	6	10/12	25	31	33	28					
	7	15/17	8	8	16	24				18/32	Reddish Brown Silty Fine Sand
	8	20/22	10	16	20	20					
	9	25/27	22	26	24	32					
	10	30/32	2	2	3	5					EOB @ 32'

TOOLS & EQUIPMENT USED

CASING SIZE	SPOON SIZE
CASING HAMMER	SPOON HAMMER
HAMMER FALL - CASING	HAMMER FALL - SPOON
CORE BARREL USED	DRILLING MUD USED
CORE BIT USED	UNDISTURBED SAMPLER
AUGER SIZE	STANDBY TIME

MISCELLANEOUS ITEMS:

GROUND WATER DATA

DATE	TIME	DEPTH (FT.)
7/24/18	At Completion	4

OBSERVATION WELL

DEPTH (FT.)		SCREEN LENGTH (FT)

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ALLIED DRILLING, INC.

653 Main Street, Box 118, Sparkill, NY 10976-0118

BORING NO. B-25

SHEET 1 of 1

BORING LOG

PROJECT: The Breakers PROJECT NO.:

LOCATION: Hudson Drive, Stony Point, NY START DATE: 7/24/18

CLIENT: Eli Herskowitz FINISH DATE: 7/24/18

INSPECTOR: DRILLER: Vincent Gandolfo HELPER: Venancio Albanez RIG: Mobile B-61

			SOIL BLOWS / 6"					ROCK CORE		RQD %	SOIL/ROCK DESCRIPTION & REMARKS
			0"-6"	6"-12"	12"-18"	18"-24"		RUN (IN.)	REC. (IN.)		
	1	0/2	7	40	100/2"					0/2	Concrete Fragments (Fill)
	2	2/4	3	5	4	6				2/4	Brown Coarse Sand with Brick Fragments (Fill)
	3	4/6	4	16	18	24				4/6	Gray Clay with Brick Fragments (Fill)
	4	6/8	3	3	12	15				6/8	Gray Clay, Some Silt
	5	8/10	8	12	20	12				8/22	Gray Fine Silt and Clay
	6	10/12	9	15	18	25					
	7	15/17	11	16	16	18					
	8	20/22	17	25	37	43				22/32	Brown Fine Silty Sand
	9	25/27	10	20	33	37					
	10	30/32	12	22	14	17					EOB @ 32'

TOOLS & EQUIPMENT USED

CASING SIZE	SPOON SIZE
CASING HAMMER	SPOON HAMMER
HAMMER FALL - CASING	HAMMER FALL - SPOON
CORE BARREL USED	DRILLING MUD USED
CORE BIT USED	UNDISTURBED SAMPLER
AUGER SIZE	STANDBY TIME

MISCELLANEOUS ITEMS:

GROUND WATER DATA

DATE	TIME	DEPTH (FT.)
7/24/18	At Completion	4

OBSERVATION WELL

DEPTH (FT.)		SCREEN LENGTH (FT)

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ALLIED DRILLING, INC.

653 Main Street, Box 118, Sparkill, NY 10976-0118

BORING NO. B-26

SHEET 1 of 1

BORING LOG

PROJECT: The Breakers PROJECT NO.:

LOCATION: Hudson Drive, Stony Point, NY START DATE: 7/25/18

CLIENT: Eli Herskowitz FINISH DATE: 7/25/18

INSPECTOR: DRILLER: Vincent Gandolfo HELPER: Venancio Albanez RIG: Mobile B-61

			SOIL BLOWS / 6"					ROCK CORE			
			0"-6"	6"-12"	12"-18"	18"-24"		RUN (IN.)	REC. (IN.)	RQD %	SOIL/ROCK DESCRIPTION & REMARKS
	1	0/2	22	8	6	62				0/2	Rock Fragments (Fill)
	2	2/4	4	8	13	15				2/4	Organics with Rock Fragments (Fill)
	3	4/6	3	6	9	11				4/6	Coarse Sand with Rock Fragments
	4	6/8	5	11	25	12				6/10	Gray Silty Sand with Some Clay
	5	8/10	10	10	9	18				10/16	Reddish-Gray Silty Sand
	6	10/12	20	15	16	18					
	7	15/17	12	14	18	29				16/17	Reddish Brown Fine Silt
											EOB @ 17'

TOOLS & EQUIPMENT USED

CASING SIZE	SPOON SIZE
CASING HAMMER	SPOON HAMMER
HAMMER FALL - CASING	HAMMER FALL - SPOON
CORE BARREL USED	DRILLING MUD USED
CORE BIT USED	UNDISTURBED SAMPLER
AUGER SIZE	STANDBY TIME

MISCELLANEOUS ITEMS:

GROUND WATER DATA

DATE	TIME	DEPTH (FT.)
7/25/18	At Completion	4

OBSERVATION WELL

DEPTH (FT.)		SCREEN LENGTH (FT)

Bus.: (845) 553-9200 Fax.: (845) 553-9199

ALLIED DRILLING, INC.

653 Main Street, Box 118, Sparkill, NY 10976-0118

BORING NO. B-27

SHEET 1 of 1

BORING LOG

PROJECT: The Breakers PROJECT NO.:

LOCATION: Hudson Drive, Stony Point, NY START DATE: 7/26/18

CLIENT: Eli Herskowitz FINISH DATE: 7/26/18

INSPECTOR: DRILLER: Vincent Gandolfo HELPER: Venancio Albanez RIG: Mobile B-61

			SOIL BLOWS / 6"					ROCK CORE			SOIL/ROCK DESCRIPTION & REMARKS
			0"-6"	6"-12"	12"-18"	18"-24"		RUN (IN.)	REC. (IN.)	RQD %	
	1	0/2	8	2	6	6				0/2	Fill Material
	2	2/4	6	7	7	5				2/4	Coarse Sand
	3	4/6	2	1	2	5				4/7	Coarse Sand with Trace Clay
	4	6/8	5	8	15	13				7/10	Reddish-Gray Silty Sand
	5	8/10	15	32	26	36				10/12	Brown Fine Silt with Some Clay
	6	10/12	30	33	39	45					
	7	15/17	21	30	45	60				12/17	Reddish Brown Fine Silt
											EOB @ 17'

TOOLS & EQUIPMENT USED

CASING SIZE	SPOON SIZE
CASING HAMMER	SPOON HAMMER
HAMMER FALL - CASING	HAMMER FALL - SPOON
CORE BARREL USED	DRILLING MUD USED
CORE BIT USED	UNDISTURBED SAMPLER
AUGER SIZE	STANDBY TIME

MISCELLANEOUS ITEMS:

GROUND WATER DATA

DATE	TIME	DEPTH (FT.)
7/26/18	At Completion	4

OBSERVATION WELL

DEPTH (FT.)		SCREEN LENGTH (FT)

Bus.: (845) 553-9200 Fax.: (845) 553-9199

ALLIED DRILLING, INC.

653 Main Street, Box 118, Sparkill, NY 10976-0118

BORING NO. B-28

SHEET 1 of 1

BORING LOG

PROJECT: The Breakers PROJECT NO.:

LOCATION: Hudson Drive, Stony Point, NY START DATE: 7/26/18

CLIENT: Eli Herskowitz FINISH DATE: 7/26/18

INSPECTOR: DRILLER: Vincent Gandolfo HELPER: Venancio Albanez RIG: Mobile B-61

			SOIL BLOWS / 6"					ROCK CORE			
			0"-6"	6"-12"	12"-18"	18"-24"		RUN (IN.)	REC. (IN.)	RQD %	SOIL/ROCK DESCRIPTION & REMARKS
	1	0/2	10	12	9	15				0/2	Fill Material with Brick and Plastic
	2	2/4	14	9	13	6				2/4	Brown Silt with Rock Fragments and Some Clay
	3	4/6	4	6	14	8				4/8	Brown Fine Silt with Clay Coarse Sand with Trace Clay
	4	6/8	12	10	9	10				8/12	Silt with Rock Fragments and Some Clay
	5	8/10	6	10	12	13				10/15	Brown-Red Clay with Fine Silt
	6	10/12	8	11	14	12					
										15/31	Reddish Fine Silt
	7	15/17	8	10	12	18					
	8	20/22	15	18	20	18					
	9	25/27	18	25	21	30					
										31/32	Fine Silt With Clay
	10	30/32	12	32	30	33					EOB @ 32'

TOOLS & EQUIPMENT USED

CASING SIZE	SPOON SIZE
CASING HAMMER	SPOON HAMMER
HAMMER FALL - CASING	HAMMER FALL - SPOON
CORE BARREL USED	DRILLING MUD USED
CORE BIT USED	UNDISTURBED SAMPLER
AUGER SIZE	STANDBY TIME

MISCELLANEOUS ITEMS:

GROUND WATER DATA

DATE	TIME	DEPTH (FT.)
7/26/18	At Completion	4

OBSERVATION WELL

DEPTH (FT.)		SCREEN LENGTH (FT)

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ALLIED DRILLING, INC.

653 Main Street, Box 118, Sparkill, NY 10976-0118

BORING NO. B-29

SHEET 1 of 1

BORING LOG

PROJECT: The Breakers PROJECT NO.:

LOCATION: Hudson Drive, Stony Point, NY START DATE: 7/27/18

CLIENT: Eli Herskowitz FINISH DATE: 7/27/18

INSPECTOR: DRILLER: Vincent Gandolfo HELPER: Venancio Albanez RIG: Mobile B-61

			SOIL BLOWS / 6"					ROCK CORE		RQD %	SOIL/ROCK DESCRIPTION & REMARKS
			0"-6"	6"-12"	12"-18"	18"-24"		RUN (IN.)	REC. (IN.)		
	1	0/2	6	6	5	5				0/8	Red Brick Fragments (Fill)
	2	2/4	3	7	8	10					
	3	4/6	9	8	8	10					
	4	6/8	12	17	15	32				8/10	Black Organics
	5	8/10	10	8	11	12				10/17	Reddish-Brown Silt
	6	10/12	13	23	26	25					
										17/23	
	7	15/17	9	16	13	16					Reddish-Brown Fine Silt, Some Gray Clay
										23/32	Gray Fine Sand, Fine Silt
	8	20/22	20	27	27	35					
	9	25/27	4	12	14	18					
	10	30/32	8	20	24	35					EOB @ 32'

TOOLS & EQUIPMENT USED

CASING SIZE	SPOON SIZE
CASING HAMMER	SPOON HAMMER
HAMMER FALL - CASING	HAMMER FALL - SPOON
CORE BARREL USED	DRILLING MUD USED
CORE BIT USED	UNDISTURBED SAMPLER
AUGER SIZE	STANDBY TIME

MISCELLANEOUS ITEMS:

GROUND WATER DATA

DATE	TIME	DEPTH (FT.)
7/27/18	At Completion	4

OBSERVATION WELL

DEPTH (FT.)		SCREEN LENGTH (FT)

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ALLIED DRILLING, INC.

653 Main Street, Box 118, Sparkill, NY 10976-0118

BORING NO. B-30

SHEET 1 of 1

BORING LOG

PROJECT: The Breakers PROJECT NO.:

LOCATION: Hudson Drive, Stony Point, NY START DATE: 7/27/18

CLIENT: Eli Herskowitz FINISH DATE: 7/27/18

INSPECTOR: DRILLER: Vincent Gandolfo HELPER: Venancio Albanez RIG: Mobile B-61

			SOIL BLOWS / 6"					ROCK CORE		RQD %	SOIL/ROCK DESCRIPTION & REMARKS
			0"-6"	6"-12"	12"-18"	18"-24"		RUN (IN.)	REC. (IN.)		
	1	0/2	10	12	20	24				0/7	Red Brick Fragments and Little Silty Sand (Fill)
	2	2/4	5	6	12	4				7/11	Gray Fine Sand, Some Silt, Trace Clay
	3	4/6	8	10	14	23					
	4	6/8	14	2	1	6					
	5	8/10	4	8	10	13				11/16	Reddish Gray Silt, Some Coarse Sand
	6	10/12	13	19	22	26					
	7	15/17	30	26	18	14				16/17	Gray Organic Silt
											EOB @ 17'

TOOLS & EQUIPMENT USED

CASING SIZE	SPOON SIZE
CASING HAMMER	SPOON HAMMER
HAMMER FALL - CASING	HAMMER FALL - SPOON
CORE BARREL USED	DRILLING MUD USED
CORE BIT USED	UNDISTURBED SAMPLER
AUGER SIZE	STANDBY TIME

MISCELLANEOUS ITEMS:

GROUND WATER DATA

DATE	TIME	DEPTH (FT.)
7/27/18	At Completion	4

OBSERVATION WELL

DEPTH (FT.)		SCREEN LENGTH (FT)

BORING LOG

BORING NO: 31

SHEET 1 of 1

PROJECT NAME: The Breakers

LOCATION: Stoney Point, New York

DATE STARTED/COMPLETED: April 2017

ENGINEER/ARCHITECT:

DRILLING METHOD: Rotary Wash

DRILL RIG TYPE: Truck Mount

HAMMER WEIGHT: 140 Lbs

DROP: 30 Inches

CASING DIAMETER: OD/ID: 4.0 inch ID

WATER LEVEL DEPTH: 4.0 ft **TIME:** WS

FILE NUMBER: 3171

OFFSET: None

SURFACE ELEV.: 12 +/- ft

DRILL CONTRACTOR: Allied Drilling Inc.

Daniel G Loucks PE
PO Box 163
Ballston Spa, New York 12020
Phone: 518-371-7622
Fax: 518-383-2069

DEPTH	Sample Number	Sample Type	BLOW COUNTS per 6 inches	"N" Value	Recovery	DESCRIPTION
1	1	SS	30-21-35-16	56		Fine to Coarse Sand and Gravel, trace to some Silt, Gray, Moist, Dense (SM-GM) FILL
3	2	SS	8-6-6-9	12		Clayey Silt, some Fine Sand, Clay, Brown, Moist to Wet, Medium Dense/Medium Stiff (ML)(SM)(CL) Layered
5	3	SS	9-7-9-8	16		
7	4	SS	7-4-5-7	9		Fine Sand, some Silt, trace to some Clay, Brown, Wet, Loose to Medium Dense/Soft (SM)(CL) Occasional Clay Layers
9	5	SS	6-6-8-10	14		
11	6	SS	15-17-30-33	47		Clayey Silt, trace to some Clay, trace Fine Sand, Brown, Wet, Dense to Very Dense (ML)(CL) Occasional Thin Clay Layers
13–14		RB				
16	7	SS	18-21-39-37	60		
17–32						End of Boring at 17.0 Feet

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ALLIED DRILLING, INC.

653 Main Street, Box 118, Sparkill, NY 10976-0118

BORING NO. B-33

SHEET 1 of 1

BORING LOG

PROJECT: The Breakers PROJECT NO.:

LOCATION: Hudson Drive, Stony Point, NY START DATE: 7/27/18

CLIENT: Eli Herskowitz FINISH DATE: 7/27/18

INSPECTOR: DRILLER: Vincent Gandolfo HELPER: Venancio Albanez RIG: Mobile B-61

			SOIL BLOWS / 6"					ROCK CORE			SOIL/ROCK DESCRIPTION & REMARKS
			0"-6"	6"-12"	12"-18"	18"-24"		RUN (IN.)	REC. (IN.)	RQD %	
	1	0/2	30	21	13	18				0/2	Rock Fragments (Fill)
										2/5	Gray-Brown Clay
	2	2/4	8	6	7	8				5/10	Red-Brown Silt
	3	4/6	9	10	11	13					
	4	6/8	7	7	13	15					
	5	8/10	7	17	23	30				10/20	Red-Brown Silty Sand, Some Gray Clay
	6	10/12	12	17	28	34					
	7	15/17	9	10	15	20					
										20/23	Gray Fine Sand, Some Gray Clay
	8	20/22	7	20	20	14					
										23/32	Brown Silt, Some Gray Clay
	9	25/27	8	16	20	23					
											EOB @ 32'
	10	30/32	5	7	15	13					

TOOLS & EQUIPMENT USED

CASING SIZE	SPOON SIZE
CASING HAMMER	SPOON HAMMER
HAMMER FALL - CASING	HAMMER FALL - SPOON
CORE BARREL USED	DRILLING MUD USED
CORE BIT USED	UNDISTURBED SAMPLER
AUGER SIZE	STANDBY TIME

MISCELLANEOUS ITEMS:

GROUND WATER DATA

DATE	TIME	DEPTH (FT.)
7/27/18	At Completion	4

OBSERVATION WELL

DEPTH (FT.)		SCREEN LENGTH (FT)

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ALLIED DRILLING, INC.

653 Main Street, Box 118, Sparkill, NY 10976-0118

BORING NO. B-~~35~~ 33

SHEET 1 of 1

BORING LOG

PROJECT: The Breakers PROJECT NO.:

LOCATION: Hudson Drive, Stony Point, NY START DATE: 7/27/18

CLIENT: Eli Herskowitz FINISH DATE: 7/27/18

INSPECTOR: DRILLER: Vincent Gandolfo HELPER: Venancio Albanez RIG: Mobile B-61

			SOIL BLOWS / 6"					ROCK CORE			
			0"-6"	6"-12"	12"-18"	18"-24"		RUN (IN.)	REC. (IN.)	RQD %	SOIL/ROCK DESCRIPTION & REMARKS
	1	0/2	8	8	12	14				0/2	Brown Medium to Fine Sand (Fill)
	2	2/4	9	11	14	14				2/4	Brown Fine Sand, Some Gray Clay
	3	4/6	13	16	17	29				4/12	Reddish-Brown Silty Fine Sand, Some Gray Clay
	4	6/8	13	15	26	24					
	5	8/10	15	19	23	27				12/17	Red-Brown Silt
	6	10/12	14	18	21	28					
	7	15/17	15	28	38	40					EOB @ 17'

TOOLS & EQUIPMENT USED	
CASING SIZE	SPOON SIZE
CASING HAMMER	SPOON HAMMER
HAMMER FALL - CASING	HAMMER FALL - SPOON
CORE BARREL USED	DRILLING MUD USED
CORE BIT USED	UNDISTURBED SAMPLER
AUGER SIZE	STANDBY TIME
MISCELLANEOUS ITEMS:	

GROUND WATER DATA		
DATE	TIME	DEPTH (FT.)
7/27/18	At Completion	4

OBSERVATION WELL		
DEPTH (FT.)		SCREEN LENGTH (FT)

BORING LOG

BORING NO: 34

SHEET 1 of 1

PROJECT NAME: The Breakers

LOCATION: Stoney Point, New York

DATE STARTED/COMPLETED: April 2017

ENGINEER/ARCHITECT:

DRILLING METHOD: Rotary Wash

DRILL RIG TYPE: Truck Mount

HAMMER WEIGHT: 140 Lbs

DROP: 30 Inches

CASING DIAMETER: OD/ID: 4.0 inch ID

WATER LEVEL DEPTH: 4.0 ft **TIME:** WS

FILE NUMBER: 3171

OFFSET: None

SURFACE ELEV.: 7 +/- ft

DRILL CONTRACTOR: Allied Drilling Inc.

Daniel G Loucks PE
PO Box 163
Ballston Spa, New York 12020
Phone: 518-371-7622
Fax: 518-383-2069

DEPTH	Sample Number	Sample Type	BLOW COUNTS per 6 inches	"N" Value	Recovery	DESCRIPTION
1	1	SS	45-45-32-34	77		Fine to Coarse Sand and Gravel, trace to some Silt, Brown/Gray, Moist, Very Dense (SM-GM) FILL
3	2	SS	28-15-12-12	27		Clayey Silt, some Fine Sand, Brown/Gray, Wet, Medium Dense (ML) Possible Fill
5	3	SS	9-6-6-7	12		Clayey Silt, trace to some Fine Sand, Clay, Brown/Gray, Wet, Medium Dense/Soft to Medium Stiff (ML)(CL) Occasional Thin Clay Layers Unconfined Compressive Strength = 0.2 to 0.8 tsf
7	4	SS	8-9-7-8	16		
9	5	SS	7-8-9-7	17		
11	6	SS	12-8-9-13	17		
13–15		RB				
16	7	SS	7-8-8-13	16		
18–20		RB				Fine to Medium Sand, some Silt, trace Clay, Brown/Gray, Wet, Dense (SM)(CL) Occasional Thin Clay Layers
21	8	SS	13-17-20-25	37		
23–25		RB				
26	9	SS	14-23-22-25	55		
28–30		RB				
31	10	SS	13-24-28-33	52		

BORING LOG

BORING NO: 35

SHEET 1 of 1

PROJECT NAME: The Breakers

LOCATION: Stoney Point, New York

DATE STARTED/COMPLETED: April 2017

ENGINEER/ARCHITECT:

DRILLING METHOD: Rotary Wash

DRILL RIG TYPE: Truck Mount

HAMMER WEIGHT: 140 Lbs

DROP: 30 Inches

CASING DIAMETER: OD/ID: 4.0 inch ID

WATER LEVEL DEPTH: 4.0 ft **TIME:** WS

FILE NUMBER: 3171

OFFSET: None

SURFACE ELEV.: 6 +/- ft

DRILL CONTRACTOR: Allied Drilling Inc.

Daniel G Loucks PE
PO Box 163
Ballston Spa, New York 12020
Phone: 518-371-7622
Fax: 518-383-2069

DEPTH	Sample Number	Sample Type	BLOW COUNTS per 6 inches	"N" Value	Recovery	DESCRIPTION
1	1	SS	13-12-18-13	30		Fine to Medium Sand and Gravel, trace to some Silt, trace Wood, Brown/Gray, Moist to Wet, Medium Dense to Dense (SM-GM) FILL
2						
3	2	SS	6-6-12-7	18		
4						
5	3	SS	5-4-6-11	10		Clayey Sil;t, some Clay, Brown/Gray, Wet, Medium Dense/Soft (ML)(CL) Occasional Clay Layers Unconfined Compressive Strength = 0.3 tsf
6						
7	4	SS	6-8-8-16	16		
8						
9	5	SS	13-15-23-20	38		Silt, trace to some Fine Sand, trace Clay, Brown/Gray, Wet, Dense (ML) (CL) Occasional Thin Clay Layers
10						
11	6	SS	18-22-24-30	46		Fine Sand, some Silt, trace Clay, Brown, Wet, Dense (SM)(CL) Occasional Thin Clay Layers
12						
13		RB				
14						
15						
16	7	SS	19-24-28-34	52		
17						
18						End of Boring at 17.0 Feet
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

BORING LOG

BORING NO: 36

SHEET 1 of 1

PROJECT NAME: The Breakers

LOCATION: Stoney Point, New York

DATE STARTED/COMPLETED: April 2017

ENGINEER/ARCHITECT:

DRILLING METHOD: Rotary Wash

DRILL RIG TYPE: Truck Mount

HAMMER WEIGHT: 140 Lbs

DROP: 30 Inches

CASING DIAMETER: OD/ID: 4.0 inch ID

WATER LEVEL DEPTH: 4.0 ft **TIME:** WS

FILE NUMBER: 3171

OFFSET: None

SURFACE ELEV.: 6 +/- ft

DRILL CONTRACTOR: Allied Drilling Inc.

Daniel G Loucks PE
PO Box 163
Ballston Spa, New York 12020
Phone: 518-371-7622
Fax: 518-383-2069

DEPTH	Sample Number	Sample Type	BLOW COUNTS per 6 inches	"N" Value	Recovery	DESCRIPTION
1	1	SS	42-30-16-16	46		Fine to Medium Sand, some Clayey Silt, trace Gravel, Brick, Brown/Gray, Moist, Dense (SM) FILL
3	2	SS	6-9-9-9	18		Fine to Medium Sand and Clay, Brown, Moist to Wet, Medium Dense/Stiff (SC-CL) Unconfined Compressive Strength = 1.2 tsf
5	3	SS	4-5-6-6	11		Clay, trace to some Sand, Brown/Gray, Wet, Medium Stiff (CL) Unconfined Compressive Strength = 1.2 tsf
7	4	SS	3-4-5-7	9		
9	5	SS	2-5-10-13	15		Silt and Clay, Brown/Gray, Wet, Medium Dense/Soft/Medium Stiff (ML)(CL) Layered Unconfined Compressive Strength = 0.2 to 0.5 tsf
11	6	SS	4-8-7-8	15		
13–14		RB				
16	7	SS	10-8-10-9	18		
17						End of Boring at 17.0 Feet

BORING LOG

BORING NO: 37

SHEET 1 of 1

PROJECT NAME: The Breakers

LOCATION: Stoney Point, New York

DATE STARTED/COMPLETED: April 2017

ENGINEER/ARCHITECT:

DRILLING METHOD: Rotary Wash

DRILL RIG TYPE: Truck Mount

HAMMER WEIGHT: 140 Lbs

DROP: 30 Inches

CASING DIAMETER: OD/ID: 4.0 inch ID

WATER LEVEL DEPTH: 4.0 ft **TIME:** WS

FILE NUMBER: 3171

OFFSET: None

SURFACE ELEV.: 6 +/- ft

DRILL CONTRACTOR: Allied Drilling Inc.

Daniel G Loucks PE
PO Box 163
Ballston Spa, New York 12020
Phone: 518-371-7622
Fax: 518-383-2069

DEPTH	Sample Number	Sample Type	BLOW COUNTS per 6 inches	"N" Value	Recovery	DESCRIPTION
1	1	SS	5-5-7-6	12		Asphalt Pavement
2						Fine to Coarse Sand, some Gravel, trace to some Clayey Silt, trace Ash, Dark Brown, Wet, Medium Dense (SM) FILL
3	2	SS	6-5-4-6	9		Fine to Coarse Sand, trace to some Silt, trace Shells, Brown, Wet, Loose (SM-SP)
4						
5	3	SS	7-6-8-9	14		Clay, trace to some Fine Sand, Gray, Wet, Soft (CL)
6						
7	4	SS	8-10-11-11	21		Silt, some Fine Sand, Brown, Wet, Medium Dense (ML)
8						
9	5	SS	8-10-12-14	22		Silt, trace to some Fine Sand, Clay, Brown, Wet, Medium Dense/Soft (ML)(CL) Occasional Clay Layers Unconfined Compressive Strength = 0.4 tsf
10						
11	6	SS	10-12-16-15	28		Fine to Medium Sand, some Silt, Brown, Moist to Wet, Medium Dense to Dense (SM)(ML) Occasioal Silt Layers
12						
13		RB				
14						
15						
16	7	SS	17-20-22-30	44		
17						
18		RB				
19						
20						
21	8	SS	12-18-18-27	36		
22						
23		RB				Silt, trace to some Fine Sand, trace Clay, Brown/Gray, Wet, Medium Dense to Dense/Soft (ML)(CL) Occasional Thin Clay Layers
24						
25						
26	9	SS	10-12-16-21	26		
27						
28		RB				
29						
30						
31	10	SS	16-20-21-36	41		
32						

BORING LOG

BORING NO: 38

SHEET 1 of 1

PROJECT NAME: The Breakers

LOCATION: Stoney Point, New York

DATE STARTED/COMPLETED: April 2017

ENGINEER/ARCHITECT:

DRILLING METHOD: Rotary Wash

DRILL RIG TYPE: Truck Mount

HAMMER WEIGHT: 140 Lbs

DROP: 30 Inches

CASING DIAMETER: OD/ID: 4.0 inch ID

WATER LEVEL DEPTH: 3.0 ft **TIME:** WS

FILE NUMBER: 3171

OFFSET: None

SURFACE ELEV.: 9 +/- ft

DRILL CONTRACTOR: Allied Drilling Inc.

Daniel G Loucks PE
PO Box 163
Ballston Spa, New York 12020
Phone: 518-371-7622
Fax: 518-383-2069

DEPTH	Sample Number	Sample Type	BLOW COUNTS per 6 inches	"N" Value	Recovery	DESCRIPTION
1		RB				Fine to Coarse Sand, some Clayey Silt, trace to some Gravel, Brown/Gray, Moist, Very Dense (SM) FILL
2	1	SS	36-41-58-86	99		
3	2	SS	91-100/.3	100+		
4		RB				
5						
6	3	SS	3-2-2-3	4		Silt, some Clay, trace to some Sand, Brown/Gray, Wet, Loose/Medium Stiff (ML)(CL)(SM) Layered Unconfined Compressive Strength = 0.8 tsf
7						
8	4	SS	2-1-3-3	4		Fine to Medium Sand, some Clay, Brown, Wet, Loose (SC)
9		RB				
10						
11	5	SS	1-3-1-4	4		Peat, trace Sand, Black, Wet, Loose (Pt)
12						
13		RB				
14						
15						
16	6	SS	2-2-3-5	5		
17						
18		RB				
19						
20						
21	7	SS	1-1-2-2	3		
22						Organic Silt, trace to some Sand, Black Wet, Loose (OL)
23		RB				
24						Fine to Medium Sand, trace to some Clayey Silt, Peat, Gray/Black, Wet, Loose (SM)(Pt) Occasional Peat Layers
25						
26	8	SS	WRH-2-3-2	5		
27						
28		RB				Fine to Medium Sand, trace to some Clayey Silt, Gray, Wet, Loose (SM)
29						
30						
31	9	SS	3-2-6-6	8		
32						

Bus.: (845) 553-9200 Fax.: (845) 553-9199

ALLIED DRILLING, INC.

653 Main Street, Box 118, Sparkill, NY 10976-0118

BORING NO. TH-39

SHEET 1 of 1

BORING LOG

PROJECT: The Breakers PROJECT NO.:

LOCATION: Hudson Drive, Stony Point, NY START DATE: 7/30/18

CLIENT: Eli Herskowitz FINISH DATE: 7/30/18

INSPECTOR: DRILLER: Tony H. Martin HELPER: Susan Clark RIG: Mobile B-61

			SOIL BLOWS / 6"					ROCK CORE			
			0"-6"	6"-12"	12"-18"	18"-24"		RUN (IN.)	REC. (IN.)	RQD %	SOIL/ROCK DESCRIPTION & REMARKS
	1	1/3	36	34	29	40				0/6"	Concrete
										6"/5'	Brown Fine-Coarse Sand (Fill)
	2	3/5	21	26	35	36				5/10	Gray Fine Sand, Slightly Silty with Shale Fragments
	3	5/7	26	20	24	32				10/11	Brown Fine Silty Sand with Brick
	4	7/9	30	30	36	22				11/15	Very Hard Drilling to 15'
	5	10/12	15	53	100/1"						
	6	15/17	100/1"				NR				EOB @ 15'

TOOLS & EQUIPMENT USED	
CASING SIZE	SPOON SIZE
CASING HAMMER	SPOON HAMMER
HAMMER FALL - CASING	HAMMER FALL - SPOON
CORE BARREL USED	DRILLING MUD USED
CORE BIT USED	UNDISTURBED SAMPLER
AUGER SIZE	STANDBY TIME
MISCELLANEOUS ITEMS:	

GROUND WATER DATA		
DATE	TIME	DEPTH (FT.)
7/30/18	At Completion	4

OBSERVATION WELL		
DEPTH (FT.)		SCREEN LENGTH (FT)

BORING LOG

BORING NO: 40

SHEET 1 of 1

PROJECT NAME: The Breakers

LOCATION: Stoney Point, New York

DATE STARTED/COMPLETED: April 2017

ENGINEER/ARCHITECT:

DRILLING METHOD: Rotary Wash

DRILL RIG TYPE: Truck Mount

HAMMER WEIGHT: 140 Lbs

DROP: 30 Inches

CASING DIAMETER: OD/ID: 4.0 inch ID

WATER LEVEL DEPTH: 3.0 ft **TIME:** WS

FILE NUMBER: 3171

OFFSET: None

SURFACE ELEV.: 9 +/- ft

DRILL CONTRACTOR: Allied Drilling Inc.

Daniel G Loucks PE
PO Box 163
Ballston Spa, New York 12020
Phone: 518-371-7622
Fax: 518-383-2069

DEPTH	Sample Number	Sample Type	BLOW COUNTS per 6 inches	"N" Value	Recovery	DESCRIPTION
1	1	SS	7-16-20-19	36		Topsoil
2						Silty Clay and Sand. trace Gravel, Dark Brown, Wet, Dense/Soft (CL-SC) FILL
3	2	SS	17-10-11-12	21		Clayey Silt, some Sand, trace Organics, Dark Gray, Moist to Wet, Medium Dense (ML) Possible Fill
4						
5	3	SS	10-11-9-11	20		Clayey Silt, trace Fine Sand, Organics, Dark Gray, Wet, Medium Dense (ML)
6						
7	4	SS	7-6-7-8	13		
8						
9	5	SS	8-8-9-12	17		
10						
11	6	SS	10-11-12-14	23		Silt, some Clay, Gray, Wet, Loose/Medium Stiff (ML)(CL) Layered
12						
13		RB				Silt, trace to some Clay, trace Fine Sand, Brown, Wet, Dense/Soft (ML)(CL) Occasional Thin Clay Layers
14						
15						
16	7	SS	12-16-17-21	33		
17						End of Boring at 17.0 Feet
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

BORING LOG

BORING NO: 41

SHEET 1 of 1

PROJECT NAME: The Breakers

LOCATION: Stoney Point, New York

DATE STARTED/COMPLETED: April 2017

ENGINEER/ARCHITECT:

DRILLING METHOD: Rotary Wash

DRILL RIG TYPE: Truck Mount

HAMMER WEIGHT: 140 Lbs

DROP: 30 Inches

CASING DIAMETER: OD/ID: 4.0 inch ID

WATER LEVEL DEPTH: 4.0 ft **TIME:** WS

FILE NUMBER: 3171

OFFSET: None

SURFACE ELEV.: 9 +/- ft

DRILL CONTRACTOR: Allied Drilling Inc.

Daniel G Loucks PE
PO Box 163
Ballston Spa, New York 12020
Phone: 518-371-7622
Fax: 518-383-2069

DEPTH	Sample Number	Sample Type	BLOW COUNTS per 6 inches	"N" Value	Recovery	DESCRIPTION
1	1	SS	10-13-6-4	19		Clayey Silt, some Sand, trace Gravel, Organics, Dark Brown, Moist, Medium Dense (ML) FILL
3	2	SS	2-2-3-3	5		Silty Clay, trace Sand, Organics, Dark Gray, Wet, Soft (CL) Unconfined Compressive Strength = 0.3 tsf
5	3	SS	2-2-2-2	4		
7	4	SS	2-2-3-11	5		
9	5	SS	9-10-9-11	19		Clayey Silt, some Sand, trace Organics, Dark Gray, Moist, Medium Dense (ML)
11	6	SS	7-7-9-13	16		
13–15		RB				Silt and Fine Sand, Brown, Wet, Dense (ML-SM)
16	7	SS	7-15-16-27	31		
17						End of Boring at 17.0 Feet

BORING LOG

BORING NO: 42

SHEET 1 of 1

PROJECT NAME: The Breakers

LOCATION: Stoney Point, New York

DATE STARTED/COMPLETED: April 2017

ENGINEER/ARCHITECT:

DRILLING METHOD: Rotary Wash

DRILL RIG TYPE: Truck Mount

HAMMER WEIGHT: 140 Lbs

DROP: 30 Inches

CASING DIAMETER: OD/ID: 4.0 inch ID

WATER LEVEL DEPTH: 3.0 ft **TIME:** WS

FILE NUMBER: 3171

OFFSET: None

SURFACE ELEV.: 8 +/- ft

DRILL CONTRACTOR: Allied Drilling Inc.

Daniel G Loucks PE
PO Box 163
Ballston Spa, New York 12020
Phone: 518-371-7622
Fax: 518-383-2069

DEPTH	Sample Number	Sample Type	BLOW COUNTS per 6 inches	"N" Value	Recovery	DESCRIPTION
1	1	SS	6-10-12-16	22		Fine to Medium Sand, trace to some Silt, trace Gravel, Roots, Dark Brown, Moist, (SM) FILL
2						
3	2	SS	12-14-18-21	32		Fine to Coarse Sand, some Clayey Silt, trace Brick, Brown, Moist, Dense (SM) FILL
4						
5	3	SS	26-31-14-16	45		Fine to Medium Sand and Clayey Silt, trace Roots, Brick, Dark Brown, Wet, Dense (SM) FILL
6						
7	4	SS	12-18-20-16	38		
8						
9	5	SS	16-9-12-16	21		Fine to Medium Sand, trace to some Clayey Silt, trace Brick, Brown/Gray, Wet, Medium Dense (SM) FILL
10						
11	6	SS	12-14-10-12	24		Fine to Medium Sand, some Silt, trace to some Clay, Gray, Wet, Loose/Medium Stiff (SM)(ML)(CL) Layered Occasional Thin Clay Layers
12						
13		RB				Silt, some Clay, trace Fine Sand, Gray, Wet, Medium Dense/Soft (ML)(CL) Layered Unconfined Compressive Strength = 0.2 tsf
14						
15						
16	7	SS	10-10-10-12	20		
17						
18		RB				
19						
20						
21	8	SS	7-9-12-16	21		
22						
23		RB				Clayey Silt, trace to some Clay, Gray, Wet, Medium Dense/Soft (ML)(CL) Occasional Thin Clay Layers
24						
25						
26	9	SS	8-9-10-12	19		
27						
28		RB				Fine Sand, trace to some Silt, Brown, Wet, Dense (SM)
29						
30						
31	10	SS	16-20-21-23	41		
32						

BORING LOG

BORING NO: 43

SHEET 1 of 1

PROJECT NAME: The Breakers

LOCATION: Stoney Point, New York

DATE STARTED/COMPLETED: April 2017

ENGINEER/ARCHITECT:

DRILLING METHOD: Rotary Wash

DRILL RIG TYPE: Truck Mount

HAMMER WEIGHT: 140 Lbs

DROP: 30 Inches

CASING DIAMETER: OD/ID: 4.0 inch ID

WATER LEVEL DEPTH: 4.0 ft **TIME:** WS

FILE NUMBER: 3171

OFFSET: None

SURFACE ELEV.: 7 +/- ft

DRILL CONTRACTOR: Allied Drilling Inc.

Daniel G Loucks PE
PO Box 163
Ballston Spa, New York 12020
Phone: 518-371-7622
Fax: 518-383-2069

DEPTH	Sample Number	Sample Type	BLOW COUNTS per 6 inches	"N" Value	Recovery	DESCRIPTION
1–2	1	SS	11-8-6-10	14		Clayey Silt, trace Gravel, Sand, Dark Brown, Moist, Medium Dense (ML) FILL
3–4	2	SS	11-12-15-18	27		Brick, trace to some Sand, Silt, Reddish Brown, Wet, Medium Dense (GM) FILL
5–6	3	SS	13-12-11-11	23		Clayey Silt, trace to some Sand, trace Brick, Gray, Wet, Medium Dense (ML) FILL
7–8	4	SS	15-12-5-3	17		Fine to Medium Sand, trace to some Gravel, Silt, trace Brick, Brown, Wet, Medium Dense (SM) FILL
9–10	5	SS	9-7-9-9	16		
11–12	6	SS	7-5-6-6	11		Silty Clay, some Sand, trace Gravel, Organics, Brown/Gray, Wet, Medium Dense (CL)
13–14–15		RB				Silt, trace to some Silty Clay, Gray, Wet, Medium Dense/Soft (ML) (CL) Occasional Thin Clay Layers
16–17	7	SS	9-6-9-7	15		
18–19–20		RB				
21–22	8	SS	5-5-7-6	12		
23–24–25		RB				Fine to Medium Sand and Silt, trace Clay, Brown/Gray, Wet, Medium Dense/Soft Occasional Thin Clay Layers Unconfined Compressive Strength = 0,2 tsf
26–27	9	SS	7-8-15-20	23		
28–29–30		RB				
31–32	10	SS	10-15-13-19	28		

The Breakers
B-14
Liquefaction Analysis

SPT No.	Depth (ft)	N field	Ce	Cr	Cs	Cb	Total Stress (psf)	Effective Stress (psf)	Cn	N1,60	FC (%)	N1,60,cs	Ksigma	Alpha	Kalpha	CRR	CSR	Safety Factor
1	1	39	.95	1	1	1	115	115	1.7	62.9	15	68.42	1	---	---	- - -	.144	- - -
2	3	22	.95	1	1	1	345	313.79	1.7	35.5	45	47.6	1	---	---	NL	.151	- - -
3	5	30	.95	1	1	1	575	419	1.7	48.4	30	60.57	1	---	---	NL	.183	- - -
4	7	37	.95	1	1	1	805	524.19	1.7	59.7	30	73.61	1	---	---	NL	.215	- - -
5	9	36	.95	1	1	1	1035	629.4	1.7	58.1	30	71.77	1	---	---	NL	.23	- - -
6	11	53	.95	1	1	1	1265	734.6	1.69	85	15	91.58	1	---	---	NL	.241	- - -
7	16	8	.95	1	1	1	1830	987.6	1.46	11	10	12.1	1	---	---	.275	.258	1.06
8	21	10	.95	1	1	1	2355	1200.6	1.32	12.5	10	13.63	1	---	---	.306	.27	1.13
9	26	20	.95	1	1	1	2880	1413.6	1.22	23.1	10	24.46	1	---	---	.587	.275	2.13
10	31	47	.95	1	1	1	3405	1626.6	1.14	50.9	90	66.08	1	---	---	NL	.276	- - -

Notes:
CSR analysis using Seed & Idriss (1971)
CSR File: C:\Program Files\GeoMotions\Projects\3171.CSR
CRR using SPT Data and Seed et. al. Method in 1997 NCEER Workshop
CRR File: C:\Program Files\GeoMotions\Projects\3171.CRR
Earthquake used in CSR Analysis: 6.0 Mw
Earthquake Magnitude for CRR Analysis: 6
Peak Ground Acceleration for CSR Analysis (g, from User): .223
Magnitude Scaling Factor (MSF): 2.086
Depth to Water Table for CRR Analysis (ft): 2.5
Depth to Water Table for Cn Calculation (ft): 2.5
Depth to Base Layer for CSR Analysis (ft): 32.5
MSF Option: Andrus & Stokoe (1997)
Cn Option: Liao & Whitman (1986)
Ksigma Option: Hynes & Olsen (1999)
SPT Energy Ratio: Safety Hammer(1): .95
**effective stress computed using Depth to Water Table for CRR Analysis
*value modified by user

The Breakers
B-14
Seismic Induced Settlement Analysis

SPT No.	Depth (ft)	Thickness (ft)	Soil Type	(N)1	(N1)60,cs	N(1,J)	CSR M=7.5	FSL	Ecyc (%)	Evol (%)	Settlement (in)
1	1	2.5		68.42	----	----	.068	----	1.1502E-03	.002	0
2	3	1.5		----	----	----	----	NFSL		----	0
3	5	2		----	----	----	----	NFSL		----	0
4	7	2		----	----	----	----	NFSL		----	0
5	9	2		----	----	----	----	NFSL		----	0
6	11	3.5		----	----	----	----	NFSL		----	0
7	16	5	loose	----	12.1		.123	1.06		.25	.149
8	21	5	loose	----	13.63		.129	1.13		.16	.096
9	26	5		----	24.46		.131	2.13		----	0
10	31	2.5		----	----	----	----	NFSL		----	0
										Total Settlement (in):	.245

Notes:
CSR analysis using Seed & Idriss (1971)
CSR analysis on File: C:\Program Files\GeoMotions\Projects\3171.CSR
Earthquake used in CSR Analysis: 6.0 Mw
CRR File: C:\Program Files\GeoMotions\Projects\3171.CRR
CRR - SPT Data & Seed et. al. Method in NCEER Workshop
CRR results on File: C:\Program Files\GeoMotions\Projects\3171.CRR
Depth to Water Table for CRR Analysis (ft): 2.5
Settlement of Dry Sands: Tokimatsu & Seed (1987)
Settlement of Saturated Sands: Tokimatsu & Seed (1987)

USGS Design Maps Summary Report

User-Specified Input

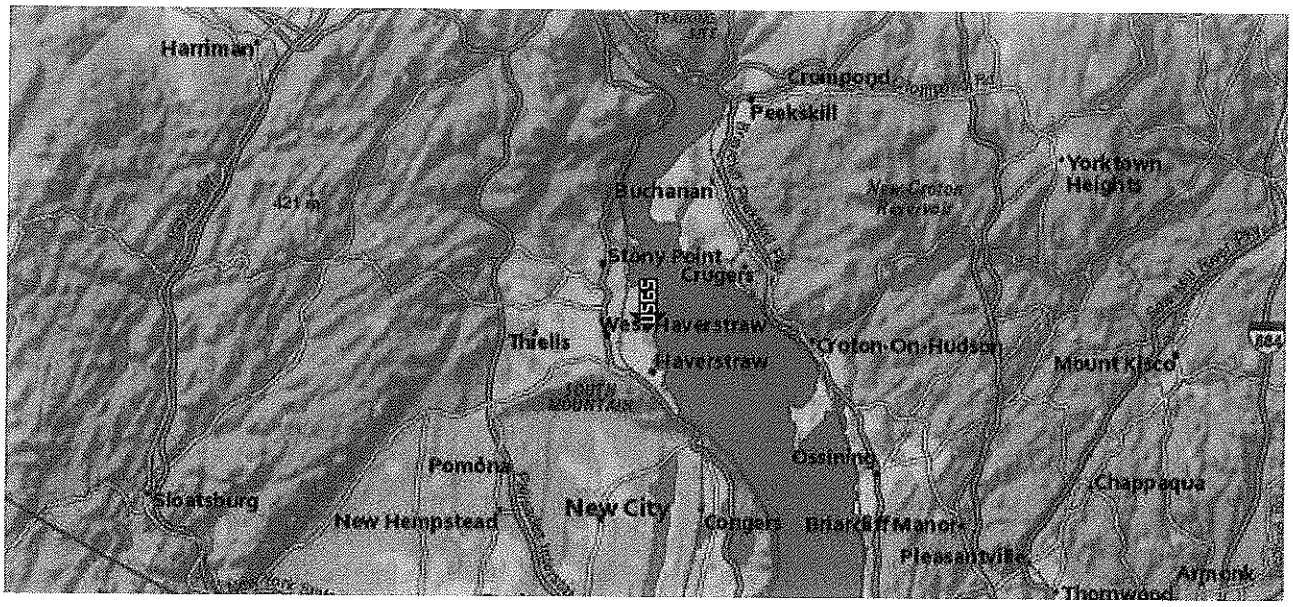
Report Title The Breakers
Tue August 21, 2018 18:51:14 UTC

Building Code Reference Document 2012/2015 International Building Code
(which utilizes USGS hazard data available in 2008)

Site Coordinates 41.22055°N, 73.96718°W

Site Soil Classification Site Class D – "Stiff Soil"

Risk Category I/II/III



USGS-Provided Output

S_S =	0.255 g	S_{MS} =	0.407 g	S_{DS} =	0.271 g
S_1 =	0.071 g	S_{M1} =	0.170 g	S_{D1} =	0.114 g

For information on how the SS and S1 values above have been calculated from probabilistic (risk-targeted) and deterministic ground motions in the direction of maximum horizontal response, please return to the application and select the "2009 NEHRP" building code reference document.

CONSTRUCTION TECHNOLOGY

INSPECTION & TESTING DIVISION, P.D.& T.S., INC.
4 William Street, Ballston Lake, New York 12019
Phone: (518) 399-1848 Fax: (518) 399-1913

CLIENT: **DANIEL LOUCKS, P.E.**
POST OFFICE BOX 163
BALLSTON SPA, NEW YORK 12020

ATT'N: MR. DANIEL LOUCKS, P.E.

PROJECT: **BREAKERS: STONY POINT, NEW YORK**

REPORT NUMBER: 1 : PAGE: 1
REPORT DATE: 04/19/17
OUR FILE NUMBER: 750.001
LAB CONTROL NUMBER: 17205

A.S.T.M. D-2974: DETERMINATION OF ORGANIC CONTENT IN SOILS

SAMPLE ID: **CLIENT ID: B-9, S-4, 6-8'**

INITIAL WEIGHT (g)	FINAL WEIGHT (g)	ORGANIC CONTENT
45.23	42.41	**6.2%**

REPORT DISTRIBUTION
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RESPECTFULLY,
CONSTRUCTION TECHNOLOGY
Tom Joslin
TOM JOSLIN, S.E.T. (NICET)
MANAGER TECHNICAL SERVICES

CONSTRUCTION TECHNOLOGY

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BALLSTON SPA, NEW YORK 12020

ATT'N: MR. DANIEL LOUCKS, P.E.

PROJECT: **BREAKERS: STONY POINT, NEW YORK**

REPORT NUMBER: 1 : PAGE: 1
REPORT DATE: 04/19/17
OUR FILE NUMBER: 750.001
LAB CONTROL NUMBER: 17205

DETERMINATION OF PLASTICITY INDEX & WATER (MOISTURE) CONTENT IN SOILS

SAMPLE ID: **CLIENT ID: B-9, S-4, 6-8'**

ASTM D-4318 LIQUID LIMIT	ASTM D-4318 PLASTIC LIMIT	ASTM D-4318 PLASTICITY INDEX	ASTM D-2216 MOISTURE CONTENT
78.6%	**38.5%**	**40**	**56.7%** AS RECEIVED

REPORT DISTRIBUTION
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RESPECTFULLY SUBMITTED,
CONSTRUCTION TECHNOLOGY
Tom Joslin
TOM JOSLIN, S.E.T. (NICET)
MANAGER TECHNICAL SERVICES

CONSTRUCTION TECHNOLOGY

INSPECTION & TESTING DIVISION, P.D.& T.S., INC.
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Phone: (518) 399-1848 Fax: (518) 399-1913

CLIENT: **DANIEL LOUCKS, P.E.**
POST OFFICE BOX 163
BALLSTON SPA, NEW YORK 12020

ATT'N: MR. DANIEL LOUCKS, P.E.

PROJECT: **BREAKERS: STONY POINT, NEW YORK**

REPORT NUMBER: 1 : PAGE: 1
REPORT DATE: 08/07/18
OUR FILE NUMBER: 750.001
LAB CONTROL NUMBER: 18222

A.S.T.M. D-2974: DETERMINATION OF ORGANIC CONTENT IN SOILS

SAMPLE ID: **CLIENT ID: B-41, S-3, 4-6'**

INITIAL WEIGHT (g)	FINAL WEIGHT (g)	ORGANIC CONTENT
45.91	43.03	**6.3%**

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Tom Joslin
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MANAGER TECHNICAL SERVICES

CONSTRUCTION TECHNOLOGY

INSPECTION & TESTING DIVISION, P.D.& T.S., INC.
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CLIENT: **DANIEL LOUCKS, P.E.**
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BALLSTON SPA, NEW YORK 12020

ATT'N: MR. DANIEL LOUCKS, P.E.

PROJECT: **BREAKERS: STONY POINT, NEW YORK**

REPORT NUMBER: 1 : PAGE: 1
REPORT DATE: 08/16/18
OUR FILE NUMBER: 750.001
LAB CONTROL NUMBER: 18287

A.S.T.M. D-2974: ORGANIC CONTENT IN SOILS // A.S.T.M. D-2216: MOISTURE CONTENT OF SOILS

SAMPLE ID: **CLIENT ID: TH-40, S-5, 8-10'**

INITIAL WEIGHT (g)	FINAL WEIGHT (g)	ORGANIC CONTENT
42.25	39.96	**5.4%**

SAMPLE ID: **CLIENT ID: TH-40, S-5, 8-10'**

INITIAL WEIGHT (g)	FINAL WEIGHT (g)	MOISTURE CONTENT
396.90	264.00	**50.3%**

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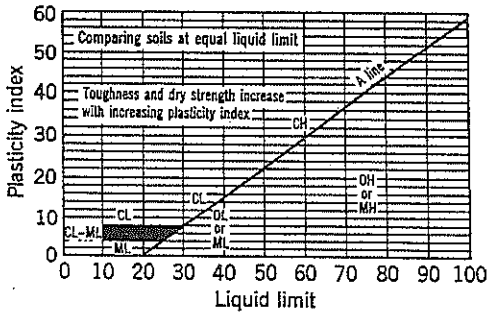
Table 3.5 Unified Soil Classification

Field Identification Procedures (Excluding particles larger than 3 in. and basing fractions on estimated weights)				Group Symbols[a]	Typical Names	Information Required for Describing Soils	Laboratory Classification Criteria		
Coarse-grained soils More than half of material is *larger* than No. 200 sieve size[b] (The No. 200 sieve size is about the smallest particle visible to naked eye)	Gravels More than half of coarse fraction is larger than No. 4 sieve size (For visual classification, the ¼ in. size may be used as equivalent to the No. 4 sieve size)	Clean gravels (little or no fines)	Wide range in grain size and substantial amounts of all intermediate particle sizes	*GW*	Well graded gravels, gravel-sand mixtures, little or no fines	Give typical name; indicate approximate percentages of sand and gravel; maximum size; angularity, surface condition, and hardness of the coarse grains; local or geologic name and other pertinent descriptive information; and symbols in parentheses For undisturbed soils add information on stratification, degree of compactness, cementation, moisture conditions and drainage characteristics Example: *Silty sand*, gravelly; about 20% hard, angular gravel particles ½-in. maximum size; rounded and subangular sand grains coarse to fine, about 15% nonplastic fines with low dry strength; well compacted and moist in place; alluvial sand; (*SM*)	Determine percentages of gravel and sand from grain size curve Depending on percentage of fines (fraction smaller than No. 200 sieve size) coarse grained soils are classified as follows: Less than 5% *GW, GP, SW, SP* More than 12% *GM, GC, SM, SC* 5% to 12% *Borderline* cases requiring use of dual symbols	$C_U = \frac{D_{60}}{D_{10}}$ Greater than 4 $C_C = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ Between 1 and 3	
			Predominantly one size or a range of sizes with some intermediate sizes missing	*GP*	Poorly graded gravels, gravel-sand mixtures, little or no fines		Not meeting all gradation requirements for *GW*		
		Gravels with fines (appreciable amount of fines)	Nonplastic fines (for identification procedures see *ML* below)	*GM*	Silty gravels, poorly graded gravel-sand-silt mixtures		Atterberg limits below "A" line, or *PI* less than 4	Above "A" line with *PI* between 4 and 7 are *borderline* cases requiring use of dual symbols	
			Plastic fines (for identification procedures, see *CL* below)	*GC*	Clayey gravels, poorly graded gravel-sand-clay mixtures		Atterberg limits above "A" line, with *PI* greater than 7		
	Sands More than half of coarse fraction is smaller than No. 4 sieve size	Clean sands (little or no fines)	Wide range in grain sizes and substantial amounts of all intermediate particle sizes	*SW*	Well graded sands, gravelly sands, little or no fines		$C_U = \frac{D_{60}}{D_{10}}$ Greater than 6 $C_C = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ Between 1 and 3		
			Predominantly one size or a range of sizes with some intermediate sizes missing	*SP*	Poorly graded sands, gravelly sands, little or no fines		Not meeting all gradation requirements for *SW*		
		Sands with fines (appreciable amount of fines)	Nonplastic fines (for identification procedures, see *ML* below)	*SM*	Silty sands, poorly graded sand-silt mixtures		Atterberg limits below "A" line or *PI* less than 5	Above "A" line with *PI* between 4 and 7 are *borderline* cases requiring use of dual symbols	
			Plastic fines (for identification procedures, see *CL* below)	*SC*	Clayey sands, poorly graded sand-clay mixtures		Atterberg limits below "A" line with *PI* greater than 7		
Fine-grained soils More than half of material is *smaller* than No. 200 sieve size (The No. 200 sieve size is about the smallest particle visible to naked eye)	Identification Procedures on Fraction Smaller than No. 40 Sieve Size						Use grain size curve in identifying the fractions as given under field identification		
			Dry Strength (crushing characteristics) / Dilatancy (reaction to shaking) / Toughness (consistency near plastic limit)						
	Silts and clays liquid limit less than 50		None to slight / Quick to slow / None	*ML*	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands with slight plasticity	Give typical name; indicate degree and character of plasticity, amount and maximum size of coarse grains; colour in wet condition, odour if any, local or geologic name, and other pertinent descriptive information, and symbol in parentheses For undisturbed soils add information on structure, stratification, consistency in undisturbed and remoulded states, moisture and drainage conditions Example: *Clayey silt*, brown; slightly plastic; small percentage of fine sand; numerous vertical root holes; firm and dry in place; loess; (*ML*)			
			Medium to high / None to very slow / Medium	*CL*	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays				
			Slight to medium / Slow / Slight	*OL*	Organic silts and organic silt-clays of low plasticity				
	Silts and clays liquid limit greater than 50		Slight to medium / Slow to none / Slight to medium	*MH*	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts				
			High to very high / None / High	*CH*	Inorganic clays of high plasticity, fat clays				
			Medium to high / None to very slow / Slight to medium	*OH*	Organic clays of medium to high plasticity				
Highly Organic Soils			Readily identified by colour, odour, spongy feel and frequently by fibrous texture	*Pt*	Peat and other highly organic soils				



Plasticity chart
for laboratory classification of fine grained soils

From Wagner, 1957.

[a] *Boundary classifications*. Soils possessing characteristics of two groups are designated by combinations of group symbols. For example *GW–GC*, well graded gravel-sand mixture with clay binder.

[b] All sieve sizes on this chart are U.S. standard.

Field Identification Procedure for Fine Grained Soils or Fractions

These procedures are to be performed on the minus No. 40 sieve size particles, approximately 1/64 in. For field classification purposes, screening is not intended, simply remove by hand the coarse particles that interfere with the tests.

Dilatancy (Reaction to shaking):

After removing particles larger than No. 40 sieve size, prepare a pat of moist soil with a volume of about one-half cubic inch. Add enough water if necessary to make the soil soft but not sticky.

Place the pat in the open palm of one hand and shake horizontally, striking vigorously against the other hand several times. A positive reaction consists of the appearance of water on the surface of the pat which changes to a livery consistency and becomes glossy. When the sample is squeezed between the fingers, the water and gloss disappear from the surface, the pat stiffens and finally it cracks or crumbles. The rapidity of appearance of water during shaking and of its disappearance during squeezing assist in identifying the character of the fines in a soil.

Very fine clean sands give the quickest and most distinct reaction whereas a plastic clay has no reaction. Inorganic silts, such as a typical rock flour, show a moderately quick reaction.

Dry Strength (Crushing characteristics):

After removing particles larger than No. 40 sieve size, mould a pat of soil to the consistency of putty, adding water if necessary. Allow the pat to dry completely by oven, sun or air drying, and then test its strength by breaking and crumbling between the fingers. This strength is a measure of the character and quantity of the colloidal fraction contained in the soil. The dry strength increases with increasing plasticity.

High dry strength is characteristic for clays of the CH group. A typical inorganic silt possesses only very slight dry strength. Silty fine sands and silts have about the same slight dry strength, but can be distinguished by the feel when powdering the dried specimen. Fine sand feels gritty whereas a typical silt has the smooth feel of flour.

Toughness (Consistency near plastic limit):

After removing particles larger than the No. 40 sieve size, a specimen of soil about one-half inch cube in size, is moulded to the consistency of putty. If too dry, water must be added and if sticky, the specimen should be spread out in a thin layer and allowed to lose some moisture by evaporation. Then the specimen is rolled out by hand on a smooth surface or between the palms into a thread about one-eight inch in diameter. The thread is then folded and re-rolled repeatedly. During this manipulation the moisture content is gradually reduced and the specimen stiffens, finally loses its plasticity, and crumbles when the plastic limit is reached.

After the thread crumbles, the pieces should be lumped together and a slight kneading action continued until the lump crumbles.

The tougher the thread near the plastic limit and the stiffer the lump when it finally crumbles, the more potent is the colloidal clay fraction in the soil. Weakness of the thread at the plastic limit and quick loss of coherence of the lump below the plastic limit indicate either inorganic clay of low plasticity, or materials such as kaolin-type clays and organic clays which occur below the A-line.

Highly organic clays have a very weak and spongy feel at the plastic limit.

Soil Characteristics Pertinent to Roads and Airfields

Major Divisions		Letter (1)	Name	Value as Subgrade When Not Subject to Frost Action	Value as Subbase When Not Subject to Frost Action	Value as Base When Not Subject to Frost Action	Potential Frost Action	Compressibility and Expansion	Drainage Characteristics	Compaction Equipment	Unit Dry Weight lb. per cu. ft.	Typical Design Values	
												CBR (2)	Subgrade Modulus k lb. per cu. in.
Coarse-Grained Soils	Gravel and Gravelly Soils	GW	Well-graded gravels or gravel-sand mixtures, little or no fines	Excellent	Excellent	Good	None to very slight	Almost none	Excellent	Crawler-type tractor, rubber-tired roller, steel-wheeled roller	125-140	40-80	300-500
		GP	Poorly graded gravels or gravel-sand mixtures, little or no fines	Good to excellent	Good	Fair to good	None to very slight	Almost none	Excellent	Crawler-type tractor, rubber-tired roller, steel-wheeled roller	110-140	30-60	300-500
		GM d	Silty gravels, gravel-sand-silt mixtures	Good to excellent	Good	Fair to good	Slight to medium	Very slight	Fair to poor	Rubber-tired roller, sheepsfoot roller; close control of moisture	125-145	40-60	300-500
		GM u		Good	Fair	Poor to not suitable	Slight to medium	Slight	Poor to practically impervious	Rubber-tired roller, sheepsfoot roller	115-135	20-30	200-500
		OC	Clayey gravels, gravel-sand-clay mixtures	Good	Fair	Poor to not suitable	Slight to medium	Slight	Poor to practically impervious	Rubber-tired roller, sheepsfoot roller	130-145	20-40	200-500
	Sand and Sandy Soils	SW	Well-graded sands or gravelly sands, little or no fines	Good	Fair to good	Poor	None to very slight	Almost none	Excellent	Crawler-type tractor, rubber-tired roller	110-130	20-40	200-400
		SP	Poorly graded sands or gravelly sands, little or no fines	Fair to good	Fair	Poor to not suitable	None to very slight	Almost none	Excellent	Crawler-type tractor, rubber-tired roller	105-135	10-40	150-400
		SM d	Silty sands, sand-silt mixtures	Fair to good	Fair to good	Poor	Slight to high	Very slight	Fair to poor	Rubber-tired roller, sheepsfoot roller; close control of moisture	120-135	15-40	150-400
		SM u		Fair	Poor to fair	Not suitable	Slight to high	Slight to medium	Poor to practically impervious	Rubber-tired roller, sheepsfoot roller	100-130	10-20	100-300
		SC	Clayey sands, sand-clay mixtures	Poor to fair	Poor	Not suitable	Slight to high	Slight to medium	Poor to practically impervious	Rubber-tired roller, sheepsfoot roller	100-135	5-20	100-300
Fine-Grained Soils	Silts and Clays LL is less than 50	ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity	Poor to fair	Not suitable	Not suitable	Medium to very high	Slight to medium	Fair to poor	Rubber-tired roller, sheepsfoot roller; close control of moisture	90-130	15 or less	100-200
		CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays	Poor to fair	Not suitable	Not suitable	Medium to high	Medium	Practically impervious	Rubber-tired roller, sheepsfoot roller	90-130	15 or less	50-150
		OL	Organic silts and organic silt-clays of low plasticity	Poor	Not suitable	Not suitable	Medium to high	Medium to high	Poor	Rubber-tired roller, sheepsfoot roller	90-105	5 or less	50-100
	Silts and Clays LL is Greater than 50	MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts	Poor	Not suitable	Not suitable	Medium to very high	High	Fair to poor	Sheepsfoot roller, rubber-tired roller	80-105	10 or less	50-100
		CH	Inorganic clays of medium to high plasticity, organic silts	Poor to fair	Not suitable	Not suitable	Medium	High	Practically impervious	Sheepsfoot roller, rubber-tired roller	90-115	15 or less	50-150
		OH	Organic clays of high plasticity, fat clays	Poor to very poor	Not suitable	Not suitable	Medium	High	Practically impervious	Sheepsfoot roller, rubber-tired roller	80-110	5 or less	25-100
Highly Organic Soils		Pt	Peat and other highly organic soils	Not suitable	Not suitable	Not suitable	Slight	Very high	Fair to poor	Compaction not practical	—	—	—

Note:

(1) Unit Dry Weights are for compacted soil at optimum moisture content for modified AASHO compaction effort. Division of GM and SM groups into subdivision of d and u are for roads and airfields only. Subdivision is basis of Atterberg limits; suffix d (e.g., GMd) will be used when the liquid limit (LL) is 25 or less and the plasticity index is 6 or less; the suffix u will be used otherwise.

(2) The maximum value that can be used in design of airfields is, in some cases, limited by gradation and plasticity requirements.

GENERAL QUALIFICATIONS

This report has been prepared in order to aid in the evaluation of this property and to assist the architect and/or engineer in the design of this project. The scope of the project and location described herein, and my description of the project represents my understanding of the significant aspects relevant to soil and foundation characteristics. In the event that any changes in the design or location of the proposed facilities, as outlined in this report, are planned, I should be informed so the changes can be reviewed and the conclusions of this report modified or approved in writing by myself.

It is recommended that all construction operations dealing with earthwork and foundations be inspected by an experienced soil engineer to assure that the design requirements are fulfilled in the actual construction. If you wish, I would welcome the opportunity to review the plans and specifications when they have been prepared so that I may have the opportunity of commenting on the effect of soil conditions on the design and specifications.

The analysis and recommendations submitted in this report are based upon the data obtained from the soil borings and/or test pits performed at the locations indicated on the location diagram and from any other information discussed in the report. This report does not reflect any variations which may occur between these boring and/or test pits. In the performance of subsurface investigations, specific information is obtained at specific locations at specific times. However, it is a well-known fact that variations in soil and rock conditions exist on most sites between boring locations and also such situations as groundwater conditions vary from time to time. The nature and extent of variations may may not become evident until the course of construction. If variations then appear evident, it will be necessary for a reevaluation of the recommendations of this report after performing on-site observations during the construction period and noting the characteristics of any variations.

Appendix K: Soil Test Reports

Appendix K.I: NRCS Soil Test Report

United States Department of Agriculture

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Rockland County, New York

January 11, 2019

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Contents

Preface.....2
How Soil Surveys Are Made.....5
Soil Map.....8
Soil Map (Eagle Bay Soil Map).....9
Legend.....10
Map Unit Legend (Eagle Bay Soil Map).....11
Map Unit Descriptions (Eagle Bay Soil Map).....11
Rockland County, New York.....13
Ip—Ipswich mucky peat, 0 to 2 percent slopes, very frequently flooded.....13
Uw—Udorthents, wet substratum.....14
W—Water.....16
YaC—Yalesville sandy loam, 8 to 15 percent slopes.....16
YaD—Yalesville sandy loam, 15 to 25 percent slopes.....17
References.....19

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map (Eagle Bay Soil Map)

Map Scale: 1:2,700 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 40 80 160 240

Feet: 0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Map Unit Polygons

Soil Map Unit Lines

Soil Map Unit Points

Special Point Features

Blowout

Borrow Pit

Clay Spot

Closed Depression

Gravel Pit

Gravelly Spot

Landfill

Lava Flow

Marsh or swamp

Mine or Quarry

Miscellaneous Water

Perennial Water

Rock Outcrop

Saline Spot

Sandy Spot

Severely Eroded Spot

Sinkhole

Slide or Slip

Sodic Spot

Spoil Area

Stony Spot

Very Stony Spot

Wet Spot

Other

Special Line Features

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Rockland County, New York
Survey Area Data: Version 16, Sep 3, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 7, 2013—Feb 26, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend (Eagle Bay Soil Map)

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Ip	Ipswich mucky peat, 0 to 2 percent slopes, very frequently flooded	0.9	2.4%
Uw	Udorthents, wet substratum	19.1	50.0%
W	Water	17.5	45.8%
YaC	Yalesville sandy loam, 8 to 15 percent slopes	0.5	1.4%
YaD	Yalesville sandy loam, 15 to 25 percent slopes	0.2	0.4%
Totals for Area of Interest		**38.3**	**100.0%**

Map Unit Descriptions (Eagle Bay Soil Map)

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it

was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Rockland County, New York

Ip—Ipswich mucky peat, 0 to 2 percent slopes, very frequently flooded

Map Unit Setting

National map unit symbol: 2tyqj
Elevation: 0 to 10 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 250 days
Farmland classification: Not prime farmland

Map Unit Composition

Ipswich and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ipswich

Setting

Landform: Tidal marshes
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Partially- decomposed herbaceous organic material

Typical profile

Oe - 0 to 42 inches: mucky peat
Oa - 42 to 59 inches: muck

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Very poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to very high (0.14 to 99.90 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: Very frequent
Frequency of ponding: None
Calcium carbonate, maximum in profile: 5 percent
Salinity, maximum in profile: Nonsaline to strongly saline (0.7 to 111.6 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 20.0
Available water storage in profile: Very high (about 26.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8w
Hydrologic Soil Group: A/D
Ecological site: Tidal Salt Low Marsh mesic very frequently flooded (R144AY001CT), Tidal Salt High Marsh mesic very frequently flooded (R144AY002CT)
Hydric soil rating: Yes

Minor Components

Pawcatuck

Percent of map unit: 5 percent
Landform: Tidal marshes
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: Tidal Salt Low Marsh mesic very frequently flooded (R144AY001CT), Tidal Salt High Marsh mesic very frequently flooded (R144AY002CT)
Hydric soil rating: Yes

Westbrook

Percent of map unit: 5 percent
Landform: Tidal marshes
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: Tidal Salt Low Marsh mesic very frequently flooded (R144AY001CT), Tidal Salt High Marsh mesic very frequently flooded (R144AY002CT)
Hydric soil rating: Yes

Uw—Udorthents, wet substratum

Map Unit Setting

National map unit symbol: 9v5f
Elevation: 50 to 2,400 feet
Mean annual precipitation: 47 to 50 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 135 to 215 days
Farmland classification: Not prime farmland

Map Unit Composition

Udorthents, wet substratum, and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Udorthents, Wet Substratum

Typical profile

H1 - 0 to 20 inches: channery loam
H2 - 20 to 70 inches: very gravelly loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.06 to 5.95 in/hr)
Depth to water table: About 12 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 15 percent
Available water storage in profile: Low (about 5.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 5w
Hydrologic Soil Group: A
Hydric soil rating: Yes

Minor Components

Udorthents

Percent of map unit: 5 percent
Hydric soil rating: No

Urban land

Percent of map unit: 4 percent
Hydric soil rating: Unranked

Hinckley

Percent of map unit: 2 percent
Hydric soil rating: No

Paxton

Percent of map unit: 2 percent
Hydric soil rating: No

Palms

Percent of map unit: 2 percent
Landform: Marshes, swamps
Hydric soil rating: Yes

Rippowam

Percent of map unit: 2 percent
Landform: Flood plains
Hydric soil rating: Yes

Sloan

Percent of map unit: 2 percent
Landform: Flood plains
Hydric soil rating: Yes

Rock outcrop

Percent of map unit: 1 percent
Hydric soil rating: Unranked

W—Water

Map Unit Setting

National map unit symbol: 9v5s
Mean annual precipitation: 47 to 50 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 135 to 215 days
Farmland classification: Not prime farmland

Map Unit Composition

Water: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

YaC—Yalesville sandy loam, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: 9v5v
Mean annual precipitation: 47 to 50 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 135 to 215 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Yalesville and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Yalesville

Setting

Landform: Hills, ridges
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Crest
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy acid till derived mainly from reddish sandstone, shale, and conglomerate, with some basalt

Typical profile

H1 - 0 to 10 inches: sandy loam
H2 - 10 to 27 inches: gravelly loam
H3 - 27 to 30 inches: extremely channery loam
H4 - 30 to 34 inches: unweathered bedrock

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock

Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 4.4 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Cheshire
Percent of map unit: 5 percent
Hydric soil rating: No

Hollis
Percent of map unit: 5 percent
Hydric soil rating: No

Holyoke
Percent of map unit: 5 percent
Hydric soil rating: No

Wethersfield
Percent of map unit: 5 percent
Hydric soil rating: No

YaD—Yalesville sandy loam, 15 to 25 percent slopes

Map Unit Setting
National map unit symbol: 9v5w
Mean annual precipitation: 47 to 50 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 135 to 215 days
Farmland classification: Not prime farmland

Map Unit Composition
Yalesville and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Yalesville

Setting
Landform: Hills, ridges
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope

Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy acid till derived mainly from reddish sandstone, shale, and conglomerate, with some basalt

Typical profile

H1 - 0 to 10 inches: sandy loam
H2 - 10 to 27 inches: gravelly loam
H3 - 27 to 30 inches: extremely channery loam
H4 - 30 to 34 inches: unweathered bedrock

Properties and qualities

Slope: 15 to 25 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 4.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Cheshire

Percent of map unit: 5 percent
Hydric soil rating: No

Hollis

Percent of map unit: 5 percent
Hydric soil rating: No

Holyoke

Percent of map unit: 5 percent
Hydric soil rating: No

Wethersfield

Percent of map unit: 5 percent
Hydric soil rating: No

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Appendix K.II: EnviroTest Laboratories Soil Test Report

EnviroTest Laboratories Inc.

ANALYTICAL REPORT

Job Number: 420-119194-1

SDG Number: Stony Point

Job Description: Walkin Client

For:
Allied Drilling Inc.
25 Greenbush Rd. South
#3
Orangeburg, NY 10962

Attention: Tommy Kendrick

Debra Bayer

Designee for
Laura L Marciano
Customer Service Manager
lmarciano@envirotestlaboratories.com
04/18/2017

cc: Ms. Renee Cusack

NYSDOH ELAP does not certify for all parameters. EnviroTest Laboratories does hold certification for all analytes where certification is offered by ELAP unless otherwise specified in the Certification Information section of this report. Pursuant to NELAP, this report may not be reproduced, except in full, without written approval of the laboratory. EnviroTest Laboratories Inc. certifies that the analytical results contained herein apply only to the samples tested as received by our laboratory. All questions regarding this report should be directed to the EnviroTest Customer Service Representative.

EnviroTest Laboratories, Inc. Certifications and Approvals: NYSDOH 10142, NJDEP NY015, CTDOPH PH-0554

Envirotest Laboratories, Inc.
315 Fullerton Avenue, Newburgh, NY 12550
Tel (845) 562-0890 Fax (845) 562-0841 www.envirotestlaboratories.com

Job Narrative
420-J119194-1

Comments
No additional comments.

Receipt
All samples were received in good condition within temperature requirements.

GC/MS VOA
Method 8260C: The Laboratory control Standard (LCS) for batch # 109581 did not meet the range of acceptable recoveries for the analytes indicated by an asterisk (*) on the results form. These compounds were low in the LCS, but passed the LOQ requirement. Therefore these compounds can be reported as non detects.

No other analytical or quality issues were noted.

GC/MS Semi VOA
No analytical or quality issues were noted.

GC Semi VOA
No analytical or quality issues were noted.

Metals
No analytical or quality issues were noted.

General Chemistry
No analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

METHOD SUMMARY

Client: Allied Drilling Inc.

Job Number: 420-119194-1
SDG Number: Stony Point

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Inductively Coupled Plasma - Atomic Emission Spectrometry	EnvTest	SW846 6010C	
Microwave Assisted Acid Digestion of Sediments,	EnvTest		SW846 3051A
Hg in Solids & Semi-solids	EnvTest	SW846 7471B	
Mercury in Solid or Semi-Solid Waste (Manual Cold	EnvTest		SW846 7471B
Organochlorine Pesticides by Gas Chromatography	EnvTest	SW846 8081B	
Microwave Extraction	EnvTest		SW846 3546
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	EnvTest	SW846 8082A	
Microwave Extraction	EnvTest		SW846 3546
Chlorinated Herbicides by GC	EnvTest	SW846 8151A	
Chlorinated Herbicides by GC - Solids Prep	EnvTest		SW846 8151A
Volatile Organic Compounds by GC/MS	EnvTest	SW846 8260C	
Closed System Purge & Trap Low Level	EnvTest		EPA 5035-L
Semivolatile Compounds by GC/MS	EnvTest	SW846 8270D	
Microwave Extraction	EnvTest		SW846 3546
Total and Amenable Cyanide (Automated Colorimetric, with Off-Line Distillation)	EnvTest	SW846 9012B	
Cyanide Distillation	EnvTest		SW846 9010C
General Sub Contract Method	Alpha	Subcontract	

Lab References:

Alpha = Alpha Analytical, Inc.

EnvTest = EnviroTest

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Allied Drilling Inc.

Job Number: 420-119194-1
SDG Number: Stony Point

Method	Analyst	Analyst ID
SW846 8260C	Andersen, Eric C	ECA
SW846 8270D	Labare, Alicia M	AML
SW846 8081B	Palentino, Gus J	GJP
SW846 8082A	Palentino, Gus J	GJP
SW846 8151A	Palentino, Gus J	GJP
SW846 6010C	Sirico, Derek	DS
SW846 7471B	Sirico, Derek	DS
SW846 9012B	Osborne, Amy	AO
SM SM2540B PSOL	Molchon, Renee	RM

SAMPLE SUMMARY

Client: Allied Drilling Inc.

Job Number: 420-119194-1
SDG Number: Stony Point

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
420-119194-1	CS-1	Solid	04/10/2017 0900	04/10/2017 1110

Tommy Kendrick
Allied Drilling Inc.
25 Greenbush Rd. South
#3
Orangeburg, NY 10962

Job Number: 420-119194-1
Sdg Number: Stony Point

Client Sample ID: **CS-1**
Lab Sample ID: **420-119194-1**

Date Sampled: 04/10/2017 0900
Date Received: 04/10/2017 1110
Client Matrix: Solid
Percent Solids: 78

Analyte	Result/Qualifier		Unit	MDL	RL	Dilution
Method: 8260C			Date Analyzed:	04/11/2017 1259		
Prep Method: 5035-L			Date Prepared:	04/11/2017 1259		
1,2,4-Trimethylbenzene	<0.000061		mg/Kg Dry	0.000061	0.0011	1.0
1,2-Dichlorobenzene	<0.000037		mg/Kg Dry	0.000037	0.0011	1.0
1,2-Dichloroethane	<0.000023		mg/Kg Dry	0.000023	0.0011	1.0
1,3,5-Trimethylbenzene	<0.000061		mg/Kg Dry	0.000061	0.0011	1.0
1,3-Dichlorobenzene	<0.000053		mg/Kg Dry	0.000053	0.0011	1.0
1,4-Dichlorobenzene	<0.000061		mg/Kg Dry	0.000061	0.0011	1.0
1,4-Dioxane	<0.0015	*	mg/Kg Dry	0.0015	0.0017	1.0
Benzene	<0.000023		mg/Kg Dry	0.000023	0.0011	1.0
Chlorobenzene	<0.000036		mg/Kg Dry	0.000036	0.0011	1.0
Chloroform	<0.000021		mg/Kg Dry	0.000021	0.0011	1.0
Ethylbenzene	<0.000045		mg/Kg Dry	0.000045	0.0011	1.0
n-Butylbenzene	<0.000026		mg/Kg Dry	0.000026	0.0011	1.0
N-Propylbenzene	<0.000071		mg/Kg Dry	0.000071	0.0011	1.0
sec-Butylbenzene	<0.000080		mg/Kg Dry	0.000080	0.0011	1.0
tert-Butylbenzene	<0.000052		mg/Kg Dry	0.000052	0.0011	1.0
Toluene	<0.000023		mg/Kg Dry	0.000023	0.0011	1.0
Xylenes, Total	<0.00011		mg/Kg Dry	0.00011	0.0023	1.0
1,1,1-Trichloroethane	<0.000029		mg/Kg Dry	0.000029	0.0011	1.0
1,1-Dichloroethane	<0.000016		mg/Kg Dry	0.000016	0.0011	1.0
1,1-Dichloroethene	<0.000038		mg/Kg Dry	0.000038	0.0011	1.0
Carbon tetrachloride	<0.000037		mg/Kg Dry	0.000037	0.0011	1.0
cis-1,2-Dichloroethene	<0.000023		mg/Kg Dry	0.000023	0.0011	1.0
Methylene Chloride	<0.000034		mg/Kg Dry	0.000034	0.0011	1.0
Tetrachloroethene	<0.00011		mg/Kg Dry	0.00011	0.0011	1.0
trans-1,2-Dichloroethene	<0.000041		mg/Kg Dry	0.000041	0.0011	1.0
Trichloroethene	<0.000046		mg/Kg Dry	0.000046	0.0011	1.0
Vinyl chloride	<0.000036		mg/Kg Dry	0.000036	0.0011	1.0
2-Butanone (MEK)	<0.00034		mg/Kg Dry	0.00034	0.0011	1.0
Methyl tert-butyl ether	<0.000017		mg/Kg Dry	0.000017	0.0011	1.0
Acetone	<0.00024		mg/Kg Dry	0.00024	0.0057	1.0

Surrogate			Acceptance Limits
Toluene-d8 (Surr)	119	%	72 - 143
4-Bromofluorobenzene	57	%	49 - 138
1,2-Dichloroethane-d4 (Surr)	105	%	73 - 128

Method: 8270D			Date Analyzed:	04/13/2017 1402		
Prep Method: 3546			Date Prepared:	04/12/2017 1600		
2-Methylphenol	<0.13		mg/Kg Dry	0.13	0.42	1.0
3 & 4 Methylphenol	<0.12		mg/Kg Dry	0.12	0.42	1.0

Tommy Kendrick
Allied Drilling Inc.
25 Greenbush Rd. South
#3
Orangeburg, NY 10962

Job Number: 420-119194-1
Sdg Number: Stony Point

Client Sample ID: **CS-1**
Lab Sample ID: **420-119194-1**

Date Sampled: 04/10/2017 0900
Date Received: 04/10/2017 1110
Client Matrix: Solid
Percent Solids: 78

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Acenaphthene	<0.11	mg/Kg Dry	0.11	0.42	1.0
Acenaphthylene	<0.095	mg/Kg Dry	0.095	0.42	1.0
Anthracene	<0.10	mg/Kg Dry	0.10	0.42	1.0
Benzo[a]anthracene	<0.077	mg/Kg Dry	0.077	0.42	1.0
Benzo[a]pyrene	<0.063	mg/Kg Dry	0.063	0.42	1.0
Benzo[b]fluoranthene	<0.091	mg/Kg Dry	0.091	0.42	1.0
Benzo[g,h,i]perylene	<0.088	mg/Kg Dry	0.088	0.42	1.0
Benzo[k]fluoranthene	<0.072	mg/Kg Dry	0.072	0.42	1.0
Chrysene	<0.081	mg/Kg Dry	0.081	0.42	1.0
Dibenz(a,h)anthracene	<0.081	mg/Kg Dry	0.081	0.42	1.0
Dibenzofuran	<0.13	mg/Kg Dry	0.13	0.42	1.0
Fluoranthene	<0.081	mg/Kg Dry	0.081	0.42	1.0
Fluorene	<0.096	mg/Kg Dry	0.096	0.42	1.0
Hexachlorobenzene	<0.092	mg/Kg Dry	0.092	0.42	1.0
Indeno[1,2,3-cd]pyrene	<0.083	mg/Kg Dry	0.083	0.42	1.0
Naphthalene	<0.094	mg/Kg Dry	0.094	0.42	1.0
Pentachlorophenol	<0.11	mg/Kg Dry	0.11	3.2	1.0
Phenol	<0.10	mg/Kg Dry	0.10	0.42	1.0
Phenanthrene	<0.11	mg/Kg Dry	0.11	0.42	1.0
Pyrene	<0.090	mg/Kg Dry	0.090	0.42	1.0

Surrogate			Acceptance Limits
2-Fluorophenol	73	%	10 - 120
Nitrobenzene-d5	61	%	10 - 120
Phenol-d5	76	%	10 - 120
Terphenyl-d14	90	%	10 - 120
2-Fluorobiphenyl	62	%	10 - 120
2,4,6 - Tribromophenol	81	%	10 - 120

Method: 8081B Date Analyzed: 04/11/2017 1829
Prep Method: 3546 Date Prepared: 04/11/2017 1105

4,4'-DDD	<0.00037	mg/Kg Dry	0.00037	0.0011	1.0
4,4'-DDE	<0.00030	mg/Kg Dry	0.00030	0.00091	1.0
4,4'-DDT	<0.00033	mg/Kg Dry	0.00033	0.00098	1.0
Aldrin	<0.00023	mg/Kg Dry	0.00023	0.00070	1.0
alpha-BHC	<0.00078	mg/Kg Dry	0.00078	0.0023	1.0
alpha-Chlordane	<0.00032	mg/Kg Dry	0.00032	0.00095	1.0
beta-BHC	<0.00027	mg/Kg Dry	0.00027	0.00080	1.0
delta-BHC	<0.00036	mg/Kg Dry	0.00036	0.0011	1.0
Dieldrin	<0.00051	mg/Kg Dry	0.00051	0.0015	1.0
Endosulfan I	<0.00019	mg/Kg Dry	0.00019	0.00057	1.0
Endosulfan II	<0.00043	mg/Kg Dry	0.00043	0.0013	1.0

Tommy Kendrick
Allied Drilling Inc.
25 Greenbush Rd. South
#3
Orangeburg, NY 10962

Job Number: 420-119194-1
Sdg Number: Stony Point

Client Sample ID: **CS-1**
Lab Sample ID: **420-119194-1**

Date Sampled: 04/10/2017 0900
Date Received: 04/10/2017 1110
Client Matrix: Solid
Percent Solids: 78

Analyte	Result/Qualifier		Unit	MDL	RL	Dilution
Endosulfan sulfate	<0.00049		mg/Kg Dry	0.00049	0.0015	1.0
Endrin	<0.00067		mg/Kg Dry	0.00067	0.0020	1.0
Heptachlor	<0.00019		mg/Kg Dry	0.00019	0.00056	1.0
gamma-BHC (Lindane)	<0.00085		mg/Kg Dry	0.00085	0.0025	1.0

Surrogate			Acceptance Limits
DCB Decachlorobiphenyl	79	%	30 - 150
Tetrachloro-m-xylene	52	%	30 - 150

Method: 8082A Date Analyzed: 04/11/2017 1829
Prep Method: 3546 Date Prepared: 04/11/2017 1105

PCB-1016	<0.0064		mg/Kg Dry	0.0064	0.081	1.0
PCB-1221	<0.011		mg/Kg Dry	0.011	0.081	1.0
PCB-1232	<0.026		mg/Kg Dry	0.026	0.081	1.0
PCB-1242	<0.015		mg/Kg Dry	0.015	0.081	1.0
PCB-1248	<0.011		mg/Kg Dry	0.011	0.081	1.0
PCB-1254	<0.016		mg/Kg Dry	0.016	0.081	1.0
PCB-1260	<0.013		mg/Kg Dry	0.013	0.081	1.0
PCB-1262	<0.013		mg/Kg Dry	0.013	0.081	1.0
PCB-1268	<0.015		mg/Kg Dry	0.015	0.081	1.0

Surrogate			Acceptance Limits
2,4,5,6-Tetrachloro-m-xylene	51	%	30 - 150
DCB Decachlorobiphenyl(surr)	75	%	30 - 150

Method: 8151A Date Analyzed: 04/18/2017 1252
Prep Method: 8151A Date Prepared: 04/17/2017 0840

Silvex (2,4,5-TP)	<0.10		mg/Kg Dry	0.10	0.38	1.0

Method: 6010C Date Analyzed: 04/14/2017 1556
Prep Method: 3051A Date Prepared: 04/14/2017 1000

Silver	0.73	J	mg/Kg Dry	0.25	2.5	2.0
Arsenic	5.1		mg/Kg Dry	0.50	2.5	2.0
Barium	130		mg/Kg Dry	0.50	50	2.0
Beryllium	<0.50		mg/Kg Dry	0.50	1.2	2.0
Cadmium	<0.50		mg/Kg Dry	0.50	1.2	2.0
Chromium	21		mg/Kg Dry	0.50	2.5	2.0
Copper	21		mg/Kg Dry	1.5	6.2	2.0
Manganese	520		mg/Kg Dry	0.75	3.7	2.0
Nickel	15		mg/Kg Dry	0.75	10	2.0
Lead	<0.25		mg/Kg Dry	0.25	6.2	2.0
Selenium	1.8	J	mg/Kg Dry	1.5	2.5	2.0
Zinc	51		mg/Kg Dry	2.0	5.0	2.0

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Job Number: 420-119194-1
Sdg Number: Stony Point

Client Sample ID: **CS-1**
Lab Sample ID: **420-119194-1**

Date Sampled: 04/10/2017 0900
Date Received: 04/10/2017 1110
Client Matrix: Solid
Percent Solids: 78

Analyte	Result/Qualifier		Unit	MDL	RL	Dilution
Method: 7471B			Date Analyzed:		04/14/2017 1328	
Prep Method: 7471B			Date Prepared:		04/13/2017 1115	
Mercury	0.015	J	mg/Kg Dry	0.0079	0.023	1.0

Tommy Kendrick
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Orangeburg, NY 10962

Job Number: 420-119194-1
Sdg Number: Stony Point

Client Sample ID: **CS-1**
Lab Sample ID: **420-119194-1**

Date Sampled: 04/10/2017 0900
Date Received: 04/10/2017 1110
Client Matrix: Solid
Percent Solids: 78

Analyte	Result/Qualifier	Unit	RL	RL	Dilution
Method: 9012B		Date Analyzed:		04/12/2017 1508	
Prep Method: 9010C		Date Prepared:		04/11/2017 0800	
Cyanide, Total	<1.3	mg/Kg Dry	1.3	1.3	1.0

DATA REPORTING QUALIFIERS

Client: Allied Drilling Inc.

Job Number:
Sdg Number: Stony Point

Lab Section	Qualifier	Description
GC/MS VOA		
	*	LCS or LCSD exceeds the control limits
Metals		
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Certification Information

Client: Allied Drilling Inc. Job Number:

Sdg Number: Stony Point

The following analytes are Not Part of the ELAP scope of accreditation:

Sulfur, Tungsten, Silicon, Bicarbonate Alkalinity, 7 Day BOD 5210C, 28 Day BOD, Soluble BOD, Carbon Dioxide, Carbonate Alkalinity, CBOD Soluble, Chlorine, Cyanide (WAD), Ferrous Iron, Ferric Iron, Total Nitrogen, Total Organic Nitrogen, Dissolved Oxygen, pH, Phenolphthalein Alkalinity, Solids (Fixed), Solids (Percent), Solids (Percent Moisture) , Solids (Percent Volatile), Solids (Volatile Suspended), Temperature, TKN (Soluble), COD (Soluble), Total Inorganic Carbon, Volatile Acids as Acetic Acid, 2-Aminopyridine, 3-Picoline, 1-Methyl-2-pyrrilidinone, Aziridine, Dimethyl sulfoxide, 1-Chlorohexane, Iron Bacteria, Salmonella, & Sulfur Reducing Bacteria.

The following analytes are Not Part of ELAP Potable Water scope of accreditation:

Cobalt (200.7, 200.8), Tin (200.7), Strontium (200.7), Gold (200.7), Platinum (200.7), Palladium (200.7), Titanium (200.7), Phosphorus (365.3), Nitrate-Nitrite (10-107-4-1C, 353.2), m-Xylene & p-Xylene (502.2, 524), Naphthalene (502.2), o-Xylene (502.2, 524), & Fecal Coliform (9222D).

The following analytes are Not Part of ELAP Solid and Hazardous Waste scope of accreditation:

Ammonia (SM 4500NH3G), TKN (351.2), Phosphorus (365.3), 1,2-Dichloro-1,1,2-trifluoroethane (8260), & Chlorodifluoromethane (8260).

The following analytes are Not Part of ELAP Non Potable Water scope of accreditation:

Dissolved Organic Carbon (5310C), Mecoprop (8151A), & MCPA (8151A).

Definitions and Glossary

Client: Allied Drilling Inc.

Job Number:

Sdg Number: Stony Point

Abbreviation	These commonly used abbreviations may or may not be present in this report.
%R	Percent Recovery
DL, RA, RE	Indicates a Dilution, Reanalysis or Reextraction.
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit - an estimate of the minimum amount of a substance that an analytical process can reliably detect. A MDL is analyte- and matrix-specific and may be laboratory-dependent.
ND	Not detected at the reporting limit (or MDL if shown).
QC	Quality Control
RL	Reporting Limit - the minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence.
RPD	Relative Percent Difference - a measure of the relative difference between two points.

EnviroTest Laboratories, Inc.

CHAIN OF CUSTODY

Lab Name EnviroTest Laboratories
Address & Ph 315 Fullerton Avenue, Newburgh, New York 12550 845-562-0890

REPORT# (Lab Use Only) 119194

PROJECT REFERENCE: Allied Drilling Inc.	PROJECT NO.	PROJECT ~~1000cy~~
ENVIROTEST PROJECT MANAGER: Tommy Kendrick	P.O. NUMBER	TOWN
CLIENT (SITE) PM: Stony Point	CLIENT PHONE: 845-590 0124	CLIENT FAX
CLIENT NAME: Allied Drilling		
CLIENT ADDRESS: 25 Greenbush Rd. South, #3 Orangeburg NY 10962		
COMPANY CONTRACTING THIS WORK (if applicable):		

PAGE 1 of 1

TURNAROUND TIME: NORMAL ____ QUICK X VERBAL ____

#OF COOLERS

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	D (Drinking Water) or W (Waste Water) Indicate	SOLID OR SEMISOLID	OTHER Specify	Total # of Containers	40ml Vials HCL	Liter Amber HCL	250ml Plastic Nitric Acid	250ml Plastic Sulfuric Acid	Liter Plastic	250ml Plastic Sodium Hyd.	Terra Core	8 oz Clear Glass	Other	REMARKS
4/10/17	9:00	CS-1				S		3							4g	4-10-17 AE		Part 375 - 8260C
						S		4								4		Part 375-8270D, 8081, 8082, 8151, Metals, Cn, Hex Chrome

ETL will call client for payment, as per Debbie at ETL.
AE 4-10-17

RELINQUISHED BY: (SIGNATURE)	COMPANY	DATE	TIME	RECEIVED BY: (SIGNATURE)	COMPANY	DATE	TIME
Brett May	Allied Drilling	4/10/17	11:10				
SAMPLED BY: (SIGNATURE) Tony	COMPANY Allied	DATE 4/10/17	TIME 0900	RECEIVED BY: (SIGNATURE)	COMPANY	DATE	TIME
RELINQUISHED BY: (SIGNATURE)	COMPANY	DATE	TIME	RECEIVED BY: (SIGNATURE)	COMPANY	DATE	TIME

*Hex Cr subcontract to Alpha Analytical

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY YES NO	Cooler Temp:	LABORATORY REMARKS: ICE (Y/N) pH: CL2: Reveiwed by:
A. Elmendorf ETL	4/10/17	11:10		3.1°C	*Filled 4oz soil jar from rec'd 8oz soil jar for subcon at ETL 4-10-17 @ 1130 AE 4-10-17

IR #3

420-119194-A-1

CS-1

Date Sampled: 4/10/2017 420-1044457

LOGIN SAMPLE RECEIPT CHECK LIST

Client: Allied Drilling Inc.

Job Number: 420-119194-1
SDG Number: Stony Point

Login Number: **119194**

Question	T/F/NA	Comment
Samples were collected by ETL employee as per SOP-SAM-1	NA	
The cooler's custody seal, if present, is intact.	NA	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is recorded.	True	3.1 C
Cooler Temp. is within method specified range.(0-6 C PW, 0-8 C NPW, or BAC <10 C	True	
If false, was sample received on ice within 6 hours of collection.	NA	
Based on above criteria cooler temperature is acceptable.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	Filled 4oz soil jar from recvd 8oz for sub at ETL 4/10/17 @ 1130. AE 4/10/17
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	NA	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

Appendix L: Phase I Environmental Site Assessment

ATZL, NASHER & ZIGLER P.C. • ENGINEERS-SURVEYORS-PLANNERS

PHASE I
ENVIRONMENTAL SITE ASSESSMENT

Prepared For:

BREAKERS LLC

Town of Stony Point
Rockland County, New York

Date: August 1, 2019
Job No. 1407

234 North Main Street • New City, New York 10956 • Tel. (845) 634-4694 • Fax (845) 634-5543
• Web: www.anzny.com

Table of Contents

I.	*Executive Summary*	1
II.	*Introduction*	2
III.	*Subject Property Description*	3
IV.	*User-Provided Information*	4
V.	*Records Review*	5
VI.	*Site Reconnaissance*	24
VII.	*Interviews*	27
VIII.	*Findings*	27
IX.	*Opinion*	29
X.	*Conclusions*	30
XI.	*Deviations*	30
XII.	*Additional Services*	30
XIII.	*References*	31
XIV.	*Signatures of Environmental Professionals*	33
XV.	*Qualifications of Environmental Professionals*	34

Figures:

Figure 1: Site Location Map

Figure 2: Aerial View

Appendices:

Appendix A: Site Photographs

Appendix B: Regulatory Database Review

Appendix C: Historic Photographs

Appendix D: Historic Topographic Maps

I. EXECUTIVE SUMMARY

This report presents the findings of a Phase 1 Environmental Site Assessment (Phase 1 ESA) prepared for the property identified as The Breakers in Stony Point, Rockland County, New York (the subject property). The Project is identified as Tax Parcels 15.04-6-3, 15.04-6-4, 15.04-6-6 on Town tax records. The property contains a total area of 41.0 acres, consisting of 17.2 acres upland, 3.2 acres of wetland and 20.6 acres in the Hudson River. The report has been prepared in conjunction with the Scope of the DEIS for the redevelopment of the site with mixed use residential and commercial development.

The Phase 1 EA conforms to the general requirements of ASTM Standard E-1527-13, to address the due diligence provisions of CERCLA. The report was prepared in general accordance with Section 9601(35)(b) of the Superfund Amendments and Reauthorization Act, to satisfy the provision that “all appropriate inquiry” be made into the presence or potential presence of hazardous substances or petroleum products on the subject property.

The property is located immediately south of the Stony Point Battlefield and Lighthouse Historic Site. The site is currently an operating marina and is occupied by three buildings known as 22, 29 and 31 Hudson Drive. The southernmost building is 22 Hudson Drive, the central building is 29 Hudson Drive and the northerly building is 31 Hudson Drive. The building at 29 Hudson Drive is an office/boat retail building with a boat repair shop located at the north end. The building at 31 Hudson Drive is primarily storage for boats, vehicles and parts. North of the buildings, boats abandoned after Hurricane Sandy are stored outside. The current tenant at 22 Hudson Drive is Partner’s Supply Corp; a wholesale distributer of lubricants.

The subject parcel is listed in several environmental databases associated with historic and current uses including RCRA, FINDS, LTANKS, USTs, AST and SPILLS. As the property extends into the Hudson River, there are several additional listings associated with the Hudson River PCBs including NPL, SEMS, US ENG CONTROLS and US INST CONTROLS.

Based on observations in the field, incomplete closeout of the reported above ground storage tanks and historic uses and spill incidents on the site, Recognized Environmental Concerns were identified. As such, further investigation is warranted.

II. INTRODUCTION

This report presents the findings of a Phase 1 Environmental Site Assessment (Phase 1 ESA) prepared by Atzl Nasher & Zigler (ANZ) for Wayne Corts for the property identified as The Breakers in Stony Point, Rockland County, New York (the subject property). This assessment is being conducted as a Scope item for the DEIS for redevelopment of the site. The subject site is currently occupied by USA Marina and Partner's Supply Corp. USA Marina is owned and operated by Wayne Corts. Mr. Corts leases space to Partner's Supply Corp.

The purpose of the Phase 1 Environmental Assessment EA) is to identify the presence of any Recognized Environmental Conditions (RECs), Historical Recognized Conditions (HRECs) and/or Controlled Recognized Environmental Conditions (CRECs) as defined by ASTM International Standard Practice E1527-13, Standard Practice for Environmental Site Assessments: Phase 1 Environmental Site Assessment process, with respect to the subject property. The report has been prepared in conjunction with the Scope of the DEIS for the redevelopment of the site with mixed use residential and commercial development. The terms are described below:

- *Recognized Environmental Condition* – the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: 1) due to release to the environment, 2) under conditions indicative of a release to the environment, or 3) under conditions that pose a material threat of a future release to the environment. De minimus conditions are not recognized environmental conditions. The term is not intended to include de minimus conditions that generally do not present a threat to human health, or the environment, and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

- *Historical Recognized Environmental Condition* – A past release of any hazardous substances or petroleum products that has occurred in connection with, and has been addressed to the satisfaction of the applicable regulatory authority, or meeting unrestricted use criteria established by the regulatory authority, without subjecting the property to any required controls.

- *Controlled Recognized Environmental Conditions* – A recognized environmental condition resulting from past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls.

The scope of services for this Phase 1 EA includes the following:

- Records review
- Site visit and reconnaissance
- Interviews with present owners, operators and occupants of the property
- Interviews with local government officials as warranted
- Review of title and judicial records for environmental liens or activity and use limitations (AULs)
- Performance of a Tier 1 Vapor Encroachment Screen of the subject property
- Evaluation of information and preparation of a Phase 1 EA report

The investigation was limited to the review of available records, interviews with local officials and persons familiar with the subject property and an on-site visual inspection. The site inspection was limited to observation of surface conditions. Hazardous conditions may exist and their detection is beyond the scope of this study. The Phase 1 EA was conducted in a manner consistent with the level of care exercised by environmental professionals currently practicing under similar conditions and was based on available information. ANZ conducted interviews and reviewed files and data to obtain information that could reveal the past or present use, storage and/or disposal of hazardous substances or petroleum products on or near the subject property. ANZ performed a visual inspection of the subject property to identify evidence of potential sources of contamination.

The Phase 1 EA conforms to the general requirements of ASTM Standard E-1527-13, to address the due diligence provisions of CERCLA. The report was prepared in general accordance with Section 9601(35)(b) of the Superfund Amendments and Reauthorization Act, to satisfy the provision that “all appropriate inquiry” be made into the presence or potential presence of hazardous substances or petroleum products on the subject property.

Based on the age of the buildings on the subject parcel, both lead based paint and asbestos may have been used during construction. This report does not include screening and sampling for either material. Prior to removing the existing structures, the building should be screened for both lead and asbestos.

Rockland County is considered to be in Zone 3 for Radon. Zone 3 predicts average indoor air quality to have less than 2pCi/L of radon according to the EPA. Per the New York State Department of Health website, Stony Point average basement level radon test is 5.26 pCi/L based on 228 homes. First floor average test results is 2.61 pCi/L based on 83 homes.

III. SUBJECT PROPERTY DESCRIPTION

The applicant proposes the redevelopment of the Stony Point Marina site, located in Stony Point, Rockland County, NY. The Project Location is identified as Tax Parcels 15.04-6-3,

15.04-6-4, 15.04-6-6 on Town tax records. The property contains a total area of 41.0 acres, consisting of 17.2 acres upland, 3.2 acres of wetland and 20.6 acres in the Hudson River. The property is located immediately south of the Stony Point Battlefield and Lighthouse Historic Site (44 Battlefield Road, Stony Point, NY).

The site is currently occupied by three buildings known as 22, 29 and 31 Hudson Drive. The southernmost building is 22 Hudson Drive, the central building is 29 Hudson Drive and the northerly building is 31 Hudson Drive.

USA Marina occupies buildings identified as 29 and 31 Hudson Drive. The building at 29 Hudson Drive is an office/boat retail building with a boat repair shop located at the north end. The building at 31 Hudson Drive is primarily storage for boats, vehicles and parts. North of the buildings, boats abandoned after Hurricane Sandy are stored outside.

The current tenant at 22 Hudson Drive is Partner's Supply Corp; a wholesale distributer of lubricants. All material associated with this tenant is stored inside the building on shipping pallets. The building interior was not accessible during the site inspection.

A Quonset hut located to the north of Building 31 is also used as storage and repairs for the cranes used in the marina operation.

Several smaller buildings associated with the marina use are located around the property. The buildings are either associated with dock operation, bathroom facilities or used in conjunction with the swimming pool near the south end of the site's waterfront area. North of the pool there are two buildings. Several open pavilions are located in the central part of the site, near the waterfront to be used as picnic area for patrons of the marina. Substantial portions of the site are utilized for dry land boat storage during the winter months.

Land immediately west of the site is occupied by the CSX Railroad right of way. Land uses west of the railroad right of way consist of single family residential housing. Land to the north of the site is occupied by Stony Point Battlefield and Lighthouse; a historic site. The site extends eastward into the Hudson River.

IV. USER-PROVIDED INFORMATION

In accordance with ASTM Standard Practice E1527-13, the "User" of this Phase I Environmental Site Assessment for the subject property is Wayne Corts.

Title Records

A title search for the subject parcel was not conducted. When a title search has been requested by the User, this office will review the document once available and revise the report accordingly

Environmental Liens or Activity and Use Limitations (AULs)

The User was not aware of any Environmental Liens or AULs against the property. An environmental lien search did not reveal environmental liens.

Specialized Knowledge

The User did not share any specialized knowledge regarding the subject parcel beyond what was discussed during the site interview.

Commonly Known or Reasonably Ascertainable Information

The User did not possess any commonly known or reasonably ascertainable knowledge beyond what was shared during the interview.

Valuation Reduction for Environmental Issues

The User was not aware of any valuation reduction of the property as a result of contamination or encumberment of the subject parcel.

Owner, Property Manager and Occupant Information

Information regarding the subject property owner, property manager and tenants are provided on Section VI

Reason for Performing Phase I

The assessment was requested as part of the Draft Environmental Impact Statement scope associated with the Breakers Project.

V. RECORDS REVIEW

Federal, state and local record sources were reviewed to identify potential sites of environmental concern located within established search databases of up to one mile from the subject property. The review of the standard environmental record sources was accomplished utilizing a computer database search report provided by Environmental Data Resources, Inc. (EDR) of Shelton, Connecticut. A copy of the EDR database report is included in the Appendix to this report. A summary of the various databases reviewed is provided below.

The databases were reviewed for information containing documented and/or suspected releases of regulated hazardous substances and/or petroleum products on or near the subject property. Orphan cross reference is included in the EDR report. No orphan sites were identified in the record review in the region.

Table V-1: Summary of Environmental Database Search

FEDERAL AND STATE LIST	SUBJECT PARCEL APPEARS ON LIST	SEARCH RADIUS	NO. OF SITES WITHIN THE SEARCH RADIUS	LAST UPDATED
National Priorities List for Federal Superfund Cleanup (NPL)/Delisted NPL/Proposed NPL	No	1.000	1	3/7/2016
Superfund Enterprise management System (SEMS)/SEMS Archive	Yes	0.500	1	3/7/2016
Resource Conservation and Recovery Information System – Treatment Storage or Disposal Facilities (RCRA Info-TSD)/RCRIS Corrective Action Activity (CORRACTS)	No	1.000	0	12/9/2015
Resource Conservation and Recovery Information System Generators/Transporters (RCRA Info Gen/Trans)/Non-Generators (Non-Gen)	Yes	0.250	1	12/9/2015
US Engineering Controls (US ENG CONTROLS)	No	0.500	1	9/10/2015
US Institutional Controls (US INST CONTROL)	No	0.500	1	9/10/2015
Facility Index System/Facility Identification Initiative Program Summary Report (FINDS)	Yes	0.001	4	7/20/2015
Emergency Response Notification System (ERNS)	No	0.001	0	3/28/2016
State Hazardous Waste Sites (SHWS)	No	1.000	1	5/17/2016
Solid Waste Facilities/landfill Sites (SWF/LF)	No	0.500	0	4/6/2016
Leaking Storage Tank Incident Reports (LTANKS)/Historical LTANKS	Yes	0.500	7	5/17/2016
Underground Storage Tanks (USTs)/Historical UST's (HIST UST's)	Yes	0.250	4	3/29/2016
Aboveground Storage Tanks (AST)	Yes	0.250	2	3/29/2016
Chemical Bulk Storage (CBS)	No	0.250	0	3/29/2016
State Engineering Controls (ENG CONTROLS)/State Institutional Controls (INST CONTROL)	No	0.500	0	5/17/2016
Approved Class B Recycling Facilities (SWRCY)	No	0.500	0	4/6/2016
MANIFEST	Yes	0.250	1	5/17/2016
Voluntary Cleanup Program (VCP)	No	0.500	0	5/17/2016
Brownfields	No	0.500	0	5/17/2016
NY Spills	Yes	0.250	11	5/17/2016
Toxic Release Inventory System (TRIS)	No	0.0001	0	12/31/2014
Drycleaners	No	0.250	0	3/25/2016
New York E-Designation	No	0.125	0	3/14/2016

The following subsections provide a discussion of the databases as well as sites identified within the search radius listed in the above table.

NPL Site List/Delisted NPL/Proposed NPL

The US EPA National Priorities Listing (NPL), or Superfund List, is a Federal listing of controlled or abandoned hazardous waste sites. The list is created from the CERCLIS database and is primarily based on a score that each site or facility receives from the USEPA's Hazard Ranking System. After a site or facility has been identified as a CERCLIS site, the US EPA conducts an assessment of the property. The ranking score associated with the degree of contamination found is one of the determinations made as to whether the site is placed on the NPL. These sites are then prioritized for possible long term remedial action and referred to the state for further action under state programs. Delisted sites are those that have been deleted from the NPL when no further response is appropriate.

The Hudson River PCBs Site includes nearly 200 miles of river beginning at the Village of Hudson Falls and heading south to the Battery in New York City. The Record of Decision (ROD) for this Federal Superfund Site is associated with the polychlorinated biphenyls (PCBs). PCBs are listed as a possible human carcinogen. For nearly 30 years, two capacitor manufacturing plans owned by

General Electric (GE) either indirectly of directly leaked the PCBs into the Hudson River. Once in the Hudson River, the PCBs adhered to the sediment. Removal of an upstream dam, Fort Edward Dam, in 1973, resulted in remobilizing and downstream accumulation of the contaminated sediment. Remediation of areas considered hot spots, with greater than 50 parts per million (ppm), were identified for evaluation and various dredging demonstration projects.

SEMS/SEMS Archive

Superfund Enterprise Management System (SEMS) tracks hazardous waste sites, and remediated activities performed in support of EPA's Superfund program across the United States. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the CERCLA. This dataset also contains sites which are either proposed to, or on, the NPL, and sites which are in the screening and assessment phase for possible inclusion on the NPL. The list was formerly known as CERCLIS and was renamed to SMS by the EPA in 2015.

SEMS-Archive tracks sites that have no further interest under the Federal Superfund program based on available information. EPA may perform a minimal level of assessment work at a site while it is archived, if site conditions change, and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment of a site has been completed and that EPA has determined no further steps will be taken to list the site on the NPL unless information indicates this decision was not appropriate, or other considerations require recommendation for listing at a later time. The decision does not

mean that there is no hazard associated with a given site, but that based on information available, the location is not judged to be a potential NPL site. The list was formerly known as the CERCLIS-NFRAP, and was renamed to SMS ARCHIVE by the EPA in 205.

The Hudson River PCBs discussed above is also listed under the SEMS Database.

A former occupant of the subject site, Total Paper Co, is included in the SEMS-Archive. The listing is a result of a fire in 1987 at the site when 2,000 gallons of an unknown petroleum product was spilled. Total Paper Co. operated at a building known as 44 Hudson Drive prior to the current marina use. The building no longer exists. The site does not qualify for the NPL and has a low priority for further assessment. The incident is also included in the SPILLS database.

RCRA Info TSD/CORRACTS

The Resource Conservation and Recovery Act (RCRA) program identifies and tracks hazardous wastes from the point of generation to the point of disposal. The Resource Conservation and Recovery Information System (RCRA Info) database tracks those facilities that treat, store and/or dispose of hazardous materials as defined by RCRA (referred to as TSD facilities). The RCRA Info Corrective Action Activity (CORRACTS) data base identifies TSD facilities that have conducted, or are currently conducting, corrective action as regulated under RCRA.

Neither the subject parcels nor any facilities within the 0.5 mile search radius were listed on the RCRA TSD database.

RCRAinfo Gen/Trans

RCRAInfo is the EPA's comprehensive information system, providing access to data supporting RCRA (the Resources Conservation and Recovery Act of 1976) and the hazardous and Solid Waste Amendments of 1984. Inclusion on the list is not necessarily indicative of contamination; rather it indicates the presence of potential sources of contamination. The database includes selective information on sites which generate, transport store, treat and dispose of hazardous waste as defined by RCRA. Conditionally exempt small quantity generators (CESQG) generate less than 100 kilograms(kg) of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQG's generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs) generate over 1,000 kg of hazardous waste or over 1 kg of acutely hazardous waste per month. Non-generators (Non-Gen) do not presently generate hazardous waste.

The subject parcel was listed on the RCRA as a large quantity generator associated with a previous manufacturing use of the site. Stuart Roberts Co. is listed as having spent stripping and cleaning bath solutions from electroplating operations in which cyanides are

used in the process. A quantity of 900 gallons stored in tank trucks was stored on site. Since 1985, the site is listed as a confirmed non-generator.

US ENG Controls

The US Engineering Controls (US ENG Controls) database includes various forms of caps, building foundations, liners and treatment methods to eliminate pathways for regulated substances to enter environmental media or affect human health.

The Hudson River PCBs is listed in the US Eng Controls database as a result of the revegetation measures for slope stabilization measures to control sediment.

US INST CONTROLS

US Institutional Controls (US INST Controls) database includes administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions and post remediation care requirements intended to prevent exposure to contaminants remaining onsite.

The Hudson River PCBs is listed in the US INST Controls database as a result of a fishing advisory.

FINDS

The Facility Index System/Facility Identification Initiative Program Summary Report (FINDS) contains facility information from several databases including the Federal Permit Compliance System Wastewater Discharges database, the US EPA Civil Enforcement Docket and the New York State Air Discharge database.

The subject parcel has a Facility Index System number as Stony Point Bay Corp and Torcort Marina Corp. related to the Air Discharge Database for particulates and ozone. Lightguide Communications Cable Hudson R Crossing is also listed

in the FINDS database related to the Air Discharge Database for particulates and ozone. Stuart Roberts Co is listed in the FINDS database as a result of the RCRA Non generator listing.

ERNS

The Emergency Response Notification System (ERNS) is a national database used to collect information on reported releases of oil and hazardous substances.

The subject parcel was not listed on the ERNS database.

SHWS

The New York State Inactive Hazardous Waste Sites (SHWS) database, complied by the New York State Department of Conservation (NYSDEC), maintains information regarding the investigation and cleanup of suspected hazardous waste sites.

Stony Point Landfill, located 0.4 miles south of the subject parcel, is listed on the SHWS Database. The landfill was closed in 1971. The site is located adjacent to a tributary of the Hudson River.

SWF/LF

The Solid Waste Facility /landfill Facilities (SWF/LF) database is a comprehensive listing of State permitted/recorded solid waste disposal facilities or landfills.

Neither the subject parcel nor any facilities within the search 0.5 mile radius were listed on the SWF/LF database.

LTANKS/HIST LTANKS

The Leaking Underground Storage Tank (LTANKS) List identifies incidences of reported leaking storage tanks, both underground storage tanks(USTs) and aboveground storage tanks (ASTs). Reports are dated from April 1, 1996 through the most recent update. Leaking can be attributed to tank test failures, tank failures or tank overfills. The HIST LTANKS is a listing of historical LTANKS site that was last updated in 2002.

The subject parcel is listed on the UST database. In 1996, F. Wilson Smith Inc. reported a spill discovered when removing two (2) underground petroleum storage tanks. One tank contained #2 Fuel Oil and the second tank contained gasoline. Soil sampling indicated contamination. Soil was stockpiled, then later removed. The spill was closed in 2002. The storage tanks were reported “closed and removed” on the UST database for the site.

Within the search radius six (6) sites are reported in the LTANKS Database as follows:

Stony Point Battlefield - 40 Battlefield Road:

> An above ground tank was overfilled and leaked #2 fuel oil into the crawl space under the home on the historic battlefield grounds 0.114 miles from the subject parcel. The leak went undetected over a weekend in 2010. Contaminated soil was stockpiled and later removed. A second spill at this location was called due to an apparent line failure, but later administratively closed. The incident is also listed on the SPILLS database.

Stony Point Battlefield - 46 Battlefield Road:

A 200 gallon #2 fuel oil tank soaked the ground under the tank from a hole in the bottom of the tank 0.175 miles from the subject parcel. The cause of the hole was unknown. Cleanup was completed and a tank closure report submitted to the Rockland County Health Department.

Stony Point Town Garage - Hicksen Road

In 1989, a spill incident was reported as a result of a tank test failure on a gasoline storage tank 0.402 miles from the subject parcel. The tank later passed a retest and the spill incident was closed.

Manglass Auto - 139 North Liberty (Route 9W)

In 1984, a spill incident was reported as a result of a tank failure on a gasoline storage tank 0.419 miles from the subject parcel. The spill incident was closed in 1987

Stony Point Filtration Plant - Main Street

In 1990, a spill incident was reported as a result of a tank test failure on a gasoline storage tank 0.455 miles from the subject parcel. An onsite monitoring well showed no product. The tank was removed. In 1998, Rockland County Health Department reviewed the site and stated the assessment was complete with no further action required. The spill was closed in 1998.

Carriage House – Route 9W

In 1993, a spill incident was reported as a result of a tank test failure on a gasoline storage tank 0.466 miles from the subject parcel. Two gasoline storage tanks were discovered with water in them. The spill was closed in 1997

USTs/HIST USTs

The UST database contains registered UST's that are regulated under Subtitle 1 of the RCRA. The Historical Underground Storage Tank (HIST UST) database contains UST's that are regulated under Subtitle 1 of the RCRA but is no longer updated and was last updated in 2002.

The subject parcel is listed on the UST database. In 1996, F. Wilson Smith Inc. reported a spill discovered when removing two (2) underground petroleum storage tanks. One tank contained #2 Fuel Oil and the second tank contained gasoline. Soil sampling indicated contamination. Soil was stockpiled then later removed. The spill was closed in 2002. The storage tanks were reported "closed and removed" on the UST database for the site.

Stony Point Marina appears on the UST Database. Two underground storage tanks were reported. Both tanks are reported as "closed and removed" in 1997. At the time the tanks were removed, one tank was empty and the second contained #2 fuel oil.

In the 0.25 mile search radius USTs were located at the following locations:

1 Lincoln Oval – 2,000 gal unleaded gasoline; closed and removed; 0.134 miles

80 Beach Rd - 2,000 gal unleaded gasoline; closed and removed; 0.167 miles

1,500 gal unleaded gasoline; closed and removed

ASTs

The Aboveground Storage Tank (AST) database contains registered AST's.

The subject parcel is listed on the ASTs Database associated with tanks registered to Stony Point Marina. The site has five (5) tanks reported as active and in-service and five (5) tanks as closed and removed. During the field visit, the above ground storage tanks were not apparent. During the interview Wayne Corts, the owner, stated the tanks were swept away during Hurricane Sandy in 2012. The AST Database does not appear to have been informed of the tank status. As part of the ESA, the tank status should be updated.

In the 0.25 mile search radius ASTs were located at the following locations:

Residential Automotive – 8 Hudson Drive

One 275 gallon waste oil AST was reported as closed and removed

CBS

The Chemical Bulk Storage (CBS) database is maintained by the NYSDEC and records an inventory of facilities that store regulated hazardous substances in UST's of any size.

The subject parcel is not listed on the CBS Database. Within the 0.25 mile search radius, one 100 gallon CBS AST containing aluminum sulfate at the Stony Point Water Filtration Plant on Main Street is listed. A second CBS tank at the same location is listed as closed and removed.

SWRCY

The NYSDEC maintains a list of facilities which are approved Class B Recycling Facilities (SWRCY). Neither the subject parcel nor any other facilities within the 0.25 mile search radius were listed in the SWRCY Database.

VCP

New York established its Voluntary Cleanup Program (VCP) to address the environmental, legal and financial barriers that often hinder the redevelopment and reuse of contaminated

properties. The VCP was developed to enhance private sector cleanup of brownfields by enabling parties to remediate sites using private, rather than public funds, and to reduce the development pressures on greenfield sites.

Neither the subject parcel nor any other facilities within the 0.50 mile search radius were listed in the VCP Database.

Brownfields

A brownfield is any real property where redevelopment or reuse may be complicated by the presence or potential presence of a hazardous waste, petroleum, pollutant or contaminant.

Neither the subject parcel nor any other facilities within the 0.50 mile search radius were listed in the Brownfields Database.

Spills

Data Collected on spills of oil or hazardous material, in New York, is reported to and collected by NYSDEC. NYSDEC provides a data base on all reported spills where the potential for environmental degradation may or may not exist.

The subject parcel is listed multiple times in the SPILLS Database; three (3) under Stony Point Marina; one (1) for Total Paper; and one associated with sewer manholes overflowing. The Hudson River PCBs are also listed in the database from an incident in 2012 involving a 55-gallon drum containing an unknown petroleum product discovered floating in the river. The barrel was not leaking and the spill was closed the same day.

In 2012, an anonymous caller reported petroleum products being stored improperly in open containers in storage sheds on the subject parcel. An environmental specialist was retained to bring the site into compliance. The spill was closed in 2012.

Stony Point Marina had two (2) spill incidents. One associated with poor housekeeping practices with an unregistered 275 gallon waste oil AST in 2012. The site was cleaned up and the spill closed in 2012. A second spill at Stony Point Marina involved #2 fuel oil leaking into the Hudson River in 2011 when sheen was reported on the river. The tank was retrieved and moved into a garage. The spill was closed in 2011.

A former occupant of the site, Total Paper Co, is included in the SPILLS Database. The listing is a result of a fire in 1987 at the site when 2,000 gallons of an unknown petroleum product was spilled. Total Paper Co. was located at 44 Hudson Drive and operated on the subject parcel prior to the current marina use. The site does not qualify for the NPL and has a low priority for further assessment. The incident is also included in the SEMS-Archive database.

In 2011, the Town of Stony Point had an equipment failure which resulted in raw sewage overflow onto Beach Road and Hudson Drive. The spill was closed after several days once equipment operation was restored.

Four (4) additional sites are listed in the SPILLS Database in the search radius:

Gulf 9W Tomkins Cove – Route 9W – 0.108 miles

> An UST was reported as possibly leaking in 1989 at the gasoline station. The spill was later closed in 2004.

Willow Cove Marina – 2 Hudson Drive – 0.109 miles

> An unknown petroleum product was reported discharging from the storm drains into the Hudson River in 1988. The spill was closed the same day.

State Owned Historic Site - 40 Battlefield Road:

> An above ground tank was overfilled and leaked #2 fuel oil into the crawl space under the home on the historic battlefield grounds 0.114 miles from the subject parcel. The leak went undetected over a weekend in 2010. Contaminated soil was stockpiled and later removed. A second spill at this location was called due to an apparent line failure but later administratively closed. The incident is also listed on the LTANKS database.

Stony Point Battlefield - 44 Battlefield Road:

> Caller reported soil contamination due to poor standards of the supply company in 2003. The incident report was closed the same day.

TRIS

The State Toxic Release Inventory System (TRIS) identifies facilities that release toxic chemicals to the air, water and land in reportable quantities. The subject parcel is not listed in the TRIS Database.

Drycleaners

EDR provides a listing of all registered drycleaners within a 0.25 mile radius of the subject property. Neither the site, nor other facilities, is listed in the Drycleaner Database.

Proprietary Database Reviews

EDR maintains databases that contain sites of potential environmental concern that are not necessarily included in standard government records. A summary of sites identified through the EDR proprietary databases review is provided in the following table:

Table V-2: Additional Database Search Results

EDR Proprietary Databases	Subject parcel appears on list	Search radius	No. of sites within the search radius	Last updated
EDR Manufactured Gas Plants	No	1.00	0	N/A
EDR Historical Auto Stations	No	0.125	2	N/A
EDR Historical Cleaners	No	0.125	0	N/A
NY Recovered Government Archive State Hazardous Waste Sites (RGA HWS)	No	0.125	0	7/1/2013
NY Recovered Government Archive Solid Waste Facilities (RGA LF)	No	0.125	0	7/1/2013

EDR Manufactured Gas Plants

The Manufactured Gas Plant (MGP) Database, a proprietary EDR Database, includes records of coal gas plants. Manufactured gas sites were used in the United States from the 1800's to the 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, resin, coal, or a mixture of coal, oil and water that also produced a significant amount of waste. Many of the byproducts of the gas production are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Neither the subject parcel nor other facilities were identified within the 1.00 mile search radius.

EDR Historical Auto Stations

The EDR Historical Auto Stations Database includes selected national collections of business directories and listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included but were not limited to gas, gas station, gasoline station, filling station, auto, auto repair, auto service station and service station.

The subject parcel was not identified on the historic automobile station database. Two historic automobile stations were identified within the 0.125 mile search radius. Both are located south of the site on Hudson Drive approximately at the location of the site identified in the SPILLS Database as Gulf 9W Tompkins Cove.

EDR Historical Cleaners

The Historical Cleaners database, a proprietary EDR database, is a listing pf potential dry cleaner sites. The review conducted by EDR was limited to those categories of sources that might include dry cleaning establishments. The categories reviewed included, but were not limited to: dry cleaners, cleaners, laundry, laundromat, cleaning, laundry, wash & dry.

Neither the subject parcel nor other facilities were identified within the 1.00 mile search radius.

RGA HWS

The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists.

Neither the subject parcel nor other facilities were identified within the 0.125 mile search radius.

RGA LF

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. The database is compiled from records formerly available from the Department of Environmental Conservation in New York.

Neither the subject parcel nor other facilities were identified within the 0.125 mile search radius.

Tier 1 Vapor Encroachment Screening

A Tier 1 Vapor Encroachment Screen was performed at the subject property in accordance with ASTM Standard Guide E2600-10 Standard) (ASTM, 2010) to determine if a vapor encroachment condition (VEC) exists at the subject property, as defined by the E-260-10 Standard. The Tier 1 Vapor Encroachment Screen consisted of a review of the Federal and State record sources for the facilities of potential environmental concern within an established search distance of up to 1/3 mile from the subject property for non-petroleum related chemicals of concern (COC) and up to 1/10 mile from the subject site for petroleum related COC. The review of environmental record sources was accomplished using a database search report provided by EDR (see Appendix). Sites of potential concern were then evaluated to determine if a potential VEC exists with respect to the subject property. In determining if a VEC exists, we considered assumed groundwater flow direction, release status, proximity of potential off-site sources to the subject property, and professional judgment.

As required by the E2600-10 Standard, the following databases were reviewed as part of the Tier 1 Vapor Encroachment Screen for information regarding documented and/or suspected releases of regulated hazardous substances and/or petroleum products on or near the subject property. Each database identified in the table below has been described in detail in the preceding section of this report and is simply listed below.

Table V-3: Vapor Encroachment Screening Summary

FEDERAL AND STATE LIST	SUBJECT PROPERTY APPEARS ON LIST	NUMBER OF SITES WITHIN SEARCH RADIUS	
		1/10 MILE	1/3 MILE
National Priorities list for federal Superfund Cleanup (NPL)/Delisted NPL/Proposed NPL	No	1	0
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)/CERCLIS No Further Remedial Action planned (NFRAP)	Yes	0	0
Resource Conservation and Recovery Information System – Treatment, Storage, or Disposal Facilities (RCRA-TSDF)/RCRIS Corrective Action Activity (CORRACTS)	No	0	0
Resource Conservation and Recovery Information System Generators/Transporters (RCRA Gen/Trans) Non Generators (RCRA NonGen/NLR)	Yes	0	0
Emergency response Notification System (ERNS)	No	0	0
US Engineering Controls (US ENG CONTROLS)	No	1	0
US Institutional Controls (US INST CONTROLS)	No	1	0
State Hazardous Waste Site (SHWS)	No	0	0
Solid Waste Facilities (SWF/LF)	No	0	0
Leaking underground Storage Tanks (LTANKS)	Yes	2	0
NY Spills	Yes	3	4
Underground Storage Tank (UST)	Yes	2	2
Aboveground Storage Tanks (AST)	Yes	2	0

Institutional Controls (INST CONTROL)	No	0	0
Voluntary Cleanup Sites (VCP)	No	0	0
Brownfields (Brownfields)	No	0	0
Drycleaners	No	0	0

Potential Off-Site Vapor Sources

Within the 0.10 mile search radius, the Hudson River PCBs account for the NPL Superfund, US ENG Controls and US Inst Control database listing. Hudson River PCB contamination is generally associated with sediment. Ground water flow from the site is assumed to flow toward the river in an easterly direction. PCBs in soil and water would not volatilize. It is unlikely the PCB from the Hudson River will impact the proposed buildings.

One of the three (3) SPILLS Database listings within the search radius was also associated with the Hudson River, when a 55-gallon drum of unknown petroleum product was discovered floating in the river. The second SPILL incident was associated with sanitary sewers overflowing during Hurricane Irene. The third incident in the SPILLS Database was an anonymous caller reporting what they deemed improper storage of petroleum products on the subject parcel.

Within the 0.33 mile search radius the sites identified are as follows:

Gulf 9W Tomkins Cove – Tomkins Ave – 0.108 miles

An UST was reported as possibly leaking in 1989 at the gasoline station. The spill was later closed in 2004

Willow Cove Marina – 2 Hudson Drive – 0.109 miles

An unknown petroleum product was reported discharging from the storm drains into the Hudson River in 1988. The spill was closed the same day.

State Owned Historic Site - 40 Battlefield Road:

An above ground tank was overfilled and leaked #2 fuel oil into the crawl space under the home on the historic battlefield grounds 0.114 miles from the subject parcel. The leak went undetected over a weekend in 2010. Contaminated soil was stockpiled and later removed. A second spill at this location was called due to an apparent line failure, but later administratively closed. The incident is also listed on the LTANKS database.

Stony Point Battlefield - 44 Battlefield Road:

> Caller reported soil contamination due to poor standards of the supply company in 2003. The incident report was closed the same day.

The incident at Willow Cove Marina and Gulf 9W are located to the south of the subject parcel. Ground water flow in and along the Hudson River is generally anticipated to be flowing eastward, toward the Hudson River. The two incidents associated with the historic Battlefield site to the north are separated hydraulically from the proposed development of the subject parcel by a stream and wetland. It is unlikely that any of the offsite incidents have impacted the subject parcel.

Potential Onsite Vapor Sources

The following may result in a potential vapor encroachment on the subject parcel:

- In 2012, the SPILL database includes an anonymous caller who reported petroleum products being stored improperly in open containers in storage sheds on the subject parcel. An environmental specialist was retained to get the site into compliance. The spill was closed in 2012.

- Stony Point Marina's poor housekeeping practices with an unregistered 275 gallon waste oil AST in 2012 was reported to the RCDOH and NYSDEC, resulting in a SPILL entry. The site was cleaned up and the spill closed in 2012.

- A SPILLS entry at Stony Point Marina involved #2 fuel oil leaking into the Hudson River in 2011 when sheen was reported on the river. The tank was retrieved and moved into a garage. The spill was closed in 2011.

- A former occupant of the site, Total Paper Co, is included in the SPILLS Database. The listing is a result of a fire in 1987 at the site when 2,000 gallons of an unknown petroleum product was spilled. Total Paper Co., located at 44 Hudson Drive, operated on the subject parcel prior to the current marina use. The site does not qualify for the NPL and has a low priority for further assessment. The incident is also included in the SEMS-Archive database.

- The subject parcel is listed on the LTANKS database. In 1996, F. Wilson Smith Inc. reported a spill discovered when removing two (2) underground petroleum storage tanks. One tank contained #2 Fuel Oil and the second tank contained gasoline. Soil sampling indicated contamination. Soil was

stockpiled then later removed. The spill was closed in 2002. The storage tanks were reported "closed and removed" on the UST database for the site.

- The existing storage of abandoned boats on the north side of the site has areas of staining and numerous plastic barrels and other materials stored. The area will need to be investigated for potential contamination.

- Several AST tanks are listed as still being active on the site. During the field investigation, the tanks were reported as being washed away during Hurricane Sandy in 2012. The tanks should be properly closed in the AST Database. The former AST area should be investigated for possible contaminated soil and vapor intrusion potential.

- During the field investigation, numerous plastic barrels were on site. The northern portion of the site is being used for the storage of abandoned boats of various sizes. Stained soil was visible in multiple areas in the abandoned boat storage area. The area should be investigated for possible contaminated soil and vapor intrusion potential.

- Based on historic maps and aerial photography it appears fill was brought into the site to extend the available land along the Hudson River.

  Information regarding the source of the material does not appear to be available. The filling predates usual record keeping typical of more recent filling projects. The fill material should be tested to determine if it poses an environmental concern. Disturbance of historic fill is regulated under Solid Waste Management.

Historic Industrial use of the site prior to the current marina use with multiple incidents in the SPILLS and LTANKS could potentially result in vapor encroachment into the proposed buildings. The current abandoned boat storage area on the north side, and numerous barrels observed around the property, should be investigated for potential vapor encroachment. Several SPILL database entries for the site for the current use of the subject parcel warrant further vapor encroachment investigation.

Additional Environmental Record Sources

Additional state and local records sources were investigated in an attempt to supplement information obtained through review of standard environmental record sources. The additional records and sources consulted in conjunction with this Phase 1 EA are listed below:

New York State DEC

A Freedom of Information Law (FOIL) inquiry was sent to the NYSDEC to determine whether any records were available for the subject property. A Freedom of Information inquiry was sent to the NYSDEC requesting available records for the subject parcel. To date, nothing has been received. In the event information is received that substantially changes the conclusions of the report, an amended report will be issued.

United States EPA

An online search of USEPAs records was conducted to determine whether any files pertaining to the subject property are available. No additional information was found beyond the material previously discussed in this report.

Physical Setting Sources

The site has a combined lot area of 43.34 acres, which is both water area and land area. Of this total, 20.6 acres is water and extends into the Hudson River. The remaining 22.7 acres is land area.

The site is accessible via Hudson Drive and a railroad underpass at Hunter Place. The site has an extensive shoreline along the Hudson River, with a dimension of approximately 2,100 linear feet. Its northern portion is occupied by a wetland area encompassing 3.2 acres.

The following subsections provide a description of the natural and physical setting of the subject property and immediate vicinity. Included are details regarding topography and site drainage, the nature of the underlying geology and hydrology, and nearby surface water and wetlands.

Topography

According to the USGS 7.5 Minute, Quadrangle Series, Haverstraw NY Quadrangle (USGS 2013) topography in the vicinity of the subject site slopes to the east. The site is characterized by level topographic conditions. Land elevations on the site range from 10 to 13 ft. along the CSX Railroad right of way to 4 to 5 ft. in the vicinity of the bulkhead along the Hudson River Shoreline.

Geology and Soil

According to the United States Department of Agriculture (USDA) Natural Resource Conservation Services' Soil Survey Geographic Database (NRCS) surficial soil on the subject site consists of primarily of Udorthents, wet substratum. The soils have been altered by filling, usually with man-made material. Suitability of this soil for use is dependent on on-site investigation. The soils are classified as poorly drained.

Hydrogeology

According to Water Resources of Rockland County (USGS 2010) groundwater is expected to be encountered at a depth greater than 6-feet below grade in the vicinity of the proposed development.

Based on topography and historic groundwater contours, groundwater is generally expected to flow to the east towards the Hudson River. Domestic water in the vicinity of the site is supplied by SUEZ (formerly United Water) a private water supply company.

Surface Water and Wetlands

Wetlands are defined according to hydrophilic vegetation, hydric sols, hydrology, and other characteristics. According to the National Wetlands Inventory, published by the US Fish and Wildlife Service (USFWS), the northernmost portion of the site is occupied by an Estuarine System of tidal wetlands partially enclosed by land.

Flood Zone Data

The site is encumbered by the 100 year flood plain. The Coastal High Hazard Area (Zone V) is subject to high velocity wave action from storms or seismic sources. Special floodplain management requirements apply in this zone including that all buildings be elevated above the base Flood Elevation. This delineation parallels the shoreline of the site and encroaches onto the land portion of the Project Location at depths ranging from 300 ft., in the vicinity of the wetlands area, to 20 ft. farther south.

Historic Use Information on the Site

Information on the history of the subject property was obtained through interviews with persons familiar with the area, municipal records, historic maps and aerial photographs. A summary of the subject property history is described below.

Historic Sanborn Map Review

No historic Sanborn Fire Insurance Maps were available for the site.

Recorded Land Title and Lien Records

No Liens have been recorded for the site.

Aerial Photographs

EDR provided historic aerial photographs of the site for the following years: 1940, 1953, 1957, 1964, 1975, 1984, 1994, 2006, 2009 and 2011. A description of the visible site utilization is provided below;

1940

Some small structures are visible in the north portion of the site. There are no docks existing at the Project Location.

1953

No marina is shown to exist at the project location in 1953. Some small structures appear on the site in the central portion of the site. Their use is not known. The Hudson Place underpass exists and connects the site to the area west of the railroad right of way. The site appears to be accessible via the Tomkins Avenue/Beach Road connection to Hudson Drive.

1957

No marina exists at the Project Location. Small structures are visible.

1964

There is no marina at the site and three does not appear to be any additional development at the Project Location.

1975

Several docks in the Hudson River are visible at the Project Location. The central building exists on the site and an area on the south is cleared. Dry land boat storage seems to be on-site. Land north of the central building is in a natural state. The shoreline around the marina appears to have been altered.

1984

All three buildings are visible on the site. An additional structure appears by the waterfront. The breakwater exists and additional docks have been constructed I the south portion of the site's Hudson River area. The amount of dry land boat storage has increased. A swimming pool exists east of the northernmost buildings. Minor alterations to the shoreline associated with the marina use appear on the subject parcel.

1994

The northernmost building appears to have been replaced by a smaller building. Dry land boat storage has expanded throughout the site. Docks have been expanded to the north and south in the Hudson River at the Project Location. The shoreline near the expanded dock was altered and expanded.

2006

Additional structures are visible along the site's shoreline area. The docks have been expanded to the north and south.

2009

Additional docks have been added in the north and central portions of waterfront area.

2011

The aerial photograph does not indicate any changes to the site from 2009.

VI. SITE RECONNAISSANCE

A field investigation was conducted by representatives of this office on September 1, 2016. The weather was sunny and around 85 degrees Fahrenheit. During the field investigation access, to all the buildings was not available. Several areas are rented and permission to enter was required from the tenant.

General Site Setting

The site is currently occupied by three buildings known as 22, 29 and 31 Hudson Drive. The southernmost building is 22 Hudson Drive, the central building is 29 Hudson Drive and the northerly building is 31 Hudson Drive. The site extends eastward into the Hudson River.

The buildings were constructed between 1950 and 1976 and have historically been used for various business uses, including marine related services. The buildings range in size from approximately 8,400 sq. ft. to 15,200 sq. ft. The northernmost building has a sloped metal roof and operates as a boat repair facility. The other two buildings have flat roofs and a light industrial style appearance with large interior garages for boat maintenance and other business uses. The marina bulkhead, docks and breakwater have existed at the site since 1975. There is existing extensive dry land storage of boats on the site.

USA Marina occupies buildings 29 and 31 Hudson Drive. The building at 29 Hudson Drive is an office/boat retail building, with a boat repair shop, located on the north end. The building at 31 Hudson Drive is primarily used as storage for boats, vehicles and parts. North of the buildings, boats damaged and abandoned after Hurricane Sandy are stored outside.

The current tenant of the 22 Hudson Drive building is Partner's Supply Corp; a wholesale distributer of lubricants. All material associated with this tenant is stored

inside the building on shipping pallets. Access to the building was not allowed during the site visit.

A Quonset hut located to the north of Building 31 is used as storage and repairs for the cranes used in the marina operation.

Several smaller buildings associated with the marina use are located around the property. The buildings are either associated with dock operation, bathroom facilities or used with the swimming pool near the south end of the site's waterfront area. North of the pool there are two buildings. Several open pavilions are located in the central part of the site, near the waterfront, to be used as picnic area for patrons of the marina.

The Project Location is located in Stony Point Bay. The Stony Point Bay at the subject site is extremely shallow, with a depth of approximately three (3) feet. Substantial portions of the site are utilized for dry land boat storage during the winter months.

The northernmost 3.2 acres of the Project Location is occupied by wetlands. This sensitive environmental area will be preserved and a 100 ft buffer will be provided. Land immediately west of the site is occupied by the CSX Railroad right of way. Land uses west of the railroad right of way consist of single family residential housing. Land to the north of the site is occupied by Stony Point Battlefield and Lighthouse; a historic site. The Project Location is at a substantially lower elevation than the plateau of the Battlefield/Lighthouse site. The land level on the subject site rises gradually from the river's edge westward. The highest elevations on the subject site are approximately 10 to 13 ft. in the westernmost portion of the site, parallel to the railroad right of way.

Exterior Observations

The open area in southern end of the site is used as either vehicle parking or as winter storage of boats in the past. Much of the area is either grass, paved or gravel. The southernmost building, 22 Hudson Drive, is occupied by Partner's Supply Corp. A petroleum delivery truck operated by the tenant was present during the field investigation. Pallets of empty 55 gallon drums were stored near the building.

A pool and associated building is also on the southern end of the subject parcel. The pool filter and hypochlorite solution are located in a fenced enclosure adjacent to the pool. The hypochlorite is stored outside in plastic 55-gallon plastic barrels inside the enclosure. No containment was provided for the barrels.

The docks included electric, sanitary and water hookup for the boats slips. Each dock has piping and wiring connection to the shore. The sanitary waste is pumped from the slip connection to the public sanitary sewer on site. The pumping facilities

for each dock are located in fenced enclosures. The system was constructed to be dismantled and stored over the winter when the docks are removed and stored over the winter. No apparent staining was visible around the pumping units during the field investigation.

The grounds behind and between 29 and 31 Hudson Drive, associated with the boat repair operation of the marina, was used for parts and scrap material storage including wooden docks, scrap metal, concrete blocks, boat parts, boat engines, tires, pipe, several semi-trailers and assorted equipment. Stained soil was evident in multiple locations. Waste oil storage next to the sheds north of 29 Hudson Drive was stored in drums without containment. Evidence of past spills and stained soil around the drums was visible.

The northern portion of the site was used for storage of docks, equipment, 55-gallon drums and numerous boats damaged and abandoned during Hurricane Sandy. Areas of stained soil were visible. The boats will need to be disposed of properly. An inventory of the boats is recommended and should include information regarding possible fuel remaining in the boat tanks and whether the oil has been drained from the engine and drive units.

Numerous 55-gallon drums were stored in this area. An inventory of the drums is recommended. The inventory should include a status of the contents; empty, partially full or full. The contents of the drums should be identified if the drum is not empty. Once identified and inventoried, proper disposal of the drums can be arranged. Several 275 gallon metal tanks were stored in this area. The status of the tanks is unknown at the time of the field investigation.

Interior Observations

Access to 22 Hudson Drive was restricted. The Tenant, Partner's Supply Corp did not provide permission to enter at during the field investigation. They operate a wholesale supply operation for the automotive repair industry. During the field investigation the truck bay on the south side of the building was open. There appear to be more than 1,100 gallons of possible petroleum products stored in 275- gallon intermediate storage containers. More than 4 were visible in the truck bay, however the facility is not listed on the PBS and the quantity is not known.

The marina office and showroom is housed in 29 Hudson Drive with a boat service and repair shop on the northern end. Numerous drums, pails and containers were present on the floor, along with shelves and work benches throughout the shop. A containment system was not apparent for the petroleum products or other chemicals.

The building at 31 Hudson Drive is used for storage. The northern wall has a multi-tier heavy duty shelving unit used to store numerous boat motors and assorted parts

and materials. Staining was visible around the shelving unit. Several vehicles and fork lifts are stored in this building.

A temporary Quonset hut shelter, used by the site crane operator, is located north of the 29 Hudson Drive building. The shelter appears to be used as a repair shop and for storage of a dismantled crane, a vehicle and several additional gas powered pieces of equipment. A 275-gallon tank that appeared empty was located in the northeast corner near the overhead door. No containment was provided for the tank. Staining was visible on the floor. Waste oil was left in open containers. Various containers of solvents and petroleum products were scattered around the space.

VII. INTERVIEWS

Wayne Corts, the owner of the subject parcel, was interviewed during the field visit. He has owned the property since the mid-1980s when he began operating the marina business.

According to Mr. Corts, the AST listed in the database washed away during Hurricane Sandy. The abandoned boats located on the north side of the parcel were also attributed to the hurricane. Mr. Corts and his staff are working to identify owners to pay for the proper disposal of the abandoned vessels.

His marina operation does not include providing fuel to the boaters. Boaters have to go to other facilities for boat fuel. The marina operation includes a repair and maintenance shop.

VIII. FINDINGS

ANZ has completed a Phase 1 EA for the subject property identified as The Breakers, located in Stony Point, Rockland County, New York. The Phase 1 EA was conducted in general conformance with ASTM Standards. The Phase 1 EA was based on a site inspection, interviews with personnel familiar with the subject property, a review of available files and historical records, and the findings of an environmental database report. The purpose of the Phase 1 EA is to identify potential RECs at the subject property and the potential implications of those RECs for the proposed future development of the site.

Recognized Environmental Conditions

Based on the data obtained during the site inspection and subsequent regulatory records review, ANZ identified the following environmental issues on the subject property.

- The current marina and boat repair, with associated petroleum product storage and use throughout the site, may have resulted in soil and groundwater contamination with possible vapor intrusion. Stained soil in numerous locations was visible throughout the site.

- The northern portion of the site, with large abandoned boat dry land storage area, has potential environmental concerns. Stained soil in numerous locations was visible.

- The AST Database still includes active tanks at the site. The tanks were reported as washed away during Hurricane Sandy during the interview. Several 275-gallon tanks were seen during the field investigation. The status of the tanks reported at the site should be updated in the AST Database. Storage tanks in use around the site should be brought up to compliance.

- Housekeeping practices around the site, regarding chemical and petroleum product use and storage, should be addressed in a site management plan. The plan should discuss proper storage and handling of chemicals and petroleum products. The plan should address the actions and steps to follow during an incident. In addition, the plan should identify the chain of command and contact information for the site. The information should be shared with emergency responders in the community.

- Tenant space use and activity should be reviewed for compliance with applicable regulations. The above site management plan should include tenant space. Storage and handling of greater than 1,100 gallons of petroleum and chemical products should be reviewed against the applicable regulations.

Historical Recognized Environmental Conditions

- The historic industrial uses of the site have the potential to pose lingering environmental concerns associated with contaminated soil and vapor intrusion.

- Based on historic maps and aerial photography, it appears fill was brought into the site to extend the available land along the Hudson River. Information regarding the source of the material was not available as the filling predates record keeping of filling projects. The fill material should be tested to determine if it poses an environmental concern. Disturbance of historic fill is regulated under Solid Waste Management.

- The Total Paper Fire is still listed on the EPA Superfund List.

- Several events at the site are listed in the SPILL and LTANK databases.

IX. OPINION

Based on the findings of the Phase 1EA, a Phase 2EA investigation is warranted. ANZ recommends the following actions to be included in the Phase 2 ESA Investigation:

- The abandoned boat storage area should be emptied and the boats properly disposed. Once empty of the boats, contaminated soil should be removed and disposed of properly. The area should be analyzed for vapor intrusion.

- The 55-gallon drums should be inventoried, including identifying contents, if applicable. The drums and contents should be disposed of properly. Drums being retained should be stored properly, including containment, if required.

- Areas throughout the site with apparent staining should be tested and contaminated soil removed as necessary. The areas should be analyzed for vapor intrusion.

- A vapor intrusion analysis for the entire site is warranted based on historic uses of the site.

- A Site Management Plan should be prepared to address good housekeeping practices, proper storage and handling of materials and emergency response. The plan should include tenant activities.

- Database listings for Above Ground Storage Tanks should be updated to reflect the current status of the facility. Active tanks throughout the site must be brought into compliance with applicable regulations. Inactive tanks should be disposed of properly.

- The historic fill area along the shoreline of the Hudson River should be tested for contamination. Once determined, a soil management plan, can be formulated.

X. CONCLUSIONS

ANZ has performed a Phase 1EA in general conformance with the scope and limitations of ASTM Practice E 1527-13 of the property identified as The Breakers in Stony Point, Rockland County, New York. Any exceptions or deletions from this practice are described in Section XI of the report.

The assessment has revealed environmental concerns resulting from past uses and current conditions of the subject property. A Phase 2 ESA investigation is warranted for the site to determine if contamination is present and if present to identify areas that need remediated before the proposed residential use can be implemented.

XI. DEVIATIONS

The following deviations from ASTM Standard Practice E1527-13 were noted in the Phase 1 EA:

1. Access to all buildings was not possible during the field visit

XII. ADDITIONAL SERVICES

The scope of work for this Phase 1 EA did not include an evaluation of the following:

1. Regulatory Compliance
2. Cultural and Historic Resources
3. Industrial Hygienic
4. Health and Safety
5. Ecological resources
6. Wetlands
7. Air Quality
8. Biological Agents
9. Asbestos Containing Materials
10. Lead Based Paint
11. Mold
12. Flood Hazards
13. Electromagnetic Fields
14. Seismic Hazards
15. Stormwater Management or Drainage
16. Structural Engineering or Integrity
17. Geotechnical Engineering

18. Public Safety

XIII. REFERENCES

- ASTM (ASTM International), 2013, Standard Practice for Environmental Site Assessment Process: Phase I Environmental Site Assessment Process, E 1527-13, West Conshohocken Pennsylvania, November 2013

- ASTM (ASTM International), 2010. Standard Practice for Vapor Encroachment Screening on Property Involved in Real Estate Transactions, West Conshohocken Pennsylvania, June 2010

- Perlmutter, Nathaniel M., *Geology and Ground-water Resources of Rockland County, New York with a Special Emphasis on the Newark Group (Triassic)*, Bulletin GW-42, U.S. Geological Survey, 1959

- Yager, Richard M. and Ratcliffe, Nicholas M., *Hydrogeology and Simulation of Groundwater Flow in Fractures Rock in the Newark Basin, Rockland County, New York*, U.S. Department of the Interior and U.S. Geological Survey, 2010

- Heisig Paul M., Water Resources of *Rockland County, New York, 2005-07, with a Special Emphasis on the Newark Basin Bedrock Aquifer,* U.S. Department of the Interior and U.S. Geological Survey, 2010

- EDR (Environmental Data Resources, Inc.), 2016, The EDR Radius Map with Geocheck, 22, 29, 31 Hudson Drive, Stony Point, New York 10980. July 28, 2016

- EDR (Environmental Data Resources, Inc.), 2016. The EDR Aerial Photo Decade Package, 22, 29, 31 Hudson Drive, Stony Point, New York 10980. July 28, 2016

- EDR (Environmental Data Resources, Inc.), 2016. Certified Sanborn Map Report, 22, 29, 31 Hudson Drive, Stony Point, New York 10980. July 28, 2016

- National Wetland Inventory (United States Fish and Wildlife Service, Division of Habitat and Resource Conservation), Digital Wetland Mapper, 2014. Http://wetlandfws.er.usga.gov/NWI/index.html

- USGA (United States Geological Survey), 2014. 7.5-Minute Quadrangle Series. Peekskill. Haverstraw, Thiells, and Popolopen Lake, 2013

XIV. SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

Provided below are the signatures of the environmental professionals who performed and reviewed this environmental site assessment.

We declare that, to the best of my knowledge and belief, we meet the definition of Environmental Professional as defined by Section §312.10 of 40 CFR 312. We have the specified qualifications based on education, training and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed all the appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Prepared by: _____

Approved by: _____
John Szarowski, P.E.
CPESC, CPSWQ, CPSMS, LEED-AP_{BD+C}

Date: _____

XV. QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

John Robert Szarowski, PE, CPESC, CPSWQ, CPMSM, LEED-APBD+C
Senior Engineer

Education

- BS (Civil Engineering) State University of New York at Buffalo, 1995
- AAS (Civil Engineering Technology) Erie Community College, 1984

Professional Registrations

- Professional Engineer, New York, 080050-1, (2002)
- Professional Engineer, Pennsylvania , PE062193, (2003)
- CPESC, CPSWQ, CPMSM
- LEED-AP_{BD+C}
- HAZWOPER 24 Hour

Professional Experience

Mr. Szarowski has over 20 years of varied civil/environmental engineering and consulting experience serving both private and public clients on site development, water distribution/treatment, sanitary collection/treatment, solid/hazardous waste, environmental remediation, hydrologic/hydraulic analysis, and construction projects.

Representative Projects

Civil/Site Design

Blackburne Development, Hamptonburgh, New York
Senior Engineer providing civil and site design services for the development of a 41 Lot Subdivision Senior Community. This project involved road design, site grading, public well, sanitary treatment design, sanitary sewer collection system, water distribution design, sanitary pump station, sewage treatment, and Stormwater Pollution Prevention Plan in accordance with Phase II NYSDEC Guidelines.

Montgomery Gas Station and Convenience Store, Village of Montgomery, New York.
Senior Engineer providing civil and site design services for the development of a gas station and convenience store. This project involved parking design, site grading, and public water and sewer connections. The Site required obtaining a Planned Development District in the Village of Montgomery to allow the use in the Local Zoning Code.

Carlisle Building Materials, Hamptonburgh, New York
Senior Engineer providing civil and site design services for the development of a one million square foot manufacturing and warehouse facility. This project involved parking design, site grading, a new railroad siding, public water and sewer connections including a mile long watermain extension along the town road, and Stormwater Pollution Prevention Plan in accordance with Phase II NYSDEC Guidelines

Professional Building, Village of Goshen, New York
Senior Engineer providing civil and site design services for the development of a 8,000 square foot professional office building. This project involved parking design, site grading, public water and sewer connections and Stormwater Pollution Prevention Plan in accordance with Phase II NYSDEC Guidelines.

Bloomingburg Fire District, Bloomingburg, New York
Senior Engineer providing civil and site design services for the development of a new fire house. This project involved parking design, site grading, public water and sewer connections, and Stormwater Pollution Prevention Plan in accordance with Phase II NYSDEC Guidelines

Willow Woods, Cornwall, New York
Senior Engineer providing civil and site design services for the development of a 24-acre, 29 lot residential subdivision. This project road design, site grading, public water, sanitary pump station and sewer extensions, sanitary sewer collection system, water distribution design, and Stormwater Pollution Prevention Plan in accordance with Phase II NYSDEC Guidelines

Britain Commons, Town of Newburgh, New York
Senior Engineer providing civil and site design services for the development of an 84-acre, 361 unit residential community. This project involved scoping and preparation of Environmental Impact Statement road design, site grading, public water and sewer extensions, sanitary sewer collection system, water distribution design, and Stormwater Pollution Prevention Plan in accordance with Phase II NYSDEC Guidelines

The Fairways, Town of Wallkill, New York
Senior Engineer providing civil and site design services for the development of a 62-acre, 217 unit residential community. This project involved scoping and preparation of Environmental Impact Statement, road design, site grading, public water and sewer extensions, sanitary sewer collection system, water distribution design, sanitary pump station, PRV valve and Stormwater Pollution Prevention Plan in accordance with Phase II NYSDEC Guidelines.

University of Rochester, Civil Site Design, Rochester, New York.
Project Engineer providing civil and site design services for the development of an 125,000 gross square foot extension of the recently completed medical research building at the University of Rochester's medical center campus. This project involved coordination of the potable water and natural gas service connections to public utility pipelines, the relocation of existing natural gas and sanitary sewer piping, and the design of sanitary and storm sewer connections to University facilities, Site grading, relocation of an existing playground and preparing the public agency approval applications covering the site plan design, traffic issues and zoning code compliance.

University of Rochester, Civil Site Design, Rochester, New York.
Project Engineer for the design of a $1,600,000 landscaping and site improvement project. This project included site improvements such as site lighting, coordination with existing utilities, permanent kiosks and gateway walls and gates, unit paver walkways and extensive landscaping. Americans with Disabilities Act compliance was integrated into the project design, as was the installation of permanent security telephones.

Rosemond Gifford Zoo at Burnett Park, Civil Site Design, Syracuse, New York.
Project Engineer for the site work associated with the addition of a new entry / learning center. Design included relocation of existing storm sewer, sanitary sewer and u/g electric, design of a constructed wetland for storm water management, grading to meet ADA compliance, site lighting and parking lot layout. Project was constructed to "Green Building" criteria.

University of Rochester, Civil Site Design, Rochester, New York.
Project Engineer for site work associated with renovations/additions to the gymnasium/field house. Design included grading necessary for the elimination of entrance stairs at the gymnasium entrance, new sidewalks, coordination of new and existing utilities, parking, traffic control, stormwater management. At the building expansion, design included the redesign of the loading dock area and changes to Faculty Road for access to the loading dock, and design of a dumpster pad.

F.F. Thompson Health Systems, Inc., Civil / Site Design, Canandaigua, New York.
Project Engineer for the 8 acre design of site work associated with of a four-story 40,000 square feet Cancer Center addition to the Hospital. Design included identification of existing utilities, modification of the existing storm sewers including the relocation of a 36 inch storm sewer, coordination of new and existing utilities, grading, parking areas, traffic control, storm water detention, porous pavement access road, fire main, erosion control, AWWA Standard Inspection for flushing, pressure and disinfection, backflow prevention design and report, and obtaining state and local permits including NYSDES SPDES for construction activities.

Hampton Inn, Civil Site Design, Victor, New York.
Project Manager responsible design of underground utilities and site work associated with of a 6,000 square building. Project included coordination of new and existing utilities, parking areas, grading and a stormwater infiltration system.

University of Rochester, River Campus Sidewalk Site Improvements, Rochester, New York. Project Engineer for the design for two separate areas of sidewalk and landscaping improvements. These areas were addressed for a combination of pedestrian safety concerns and site beautification. The projects included site design, lighting, concrete steps and retaining wall, grading and landscape design.

Design of Remedial Actions

Town of Monroe DPW Garage Remediation Work Plan. Monroe, New York.
Senior Engineer responsible for the design and implementation of the continuing remediation plan and monitoring required by the NYSDEC to address soil contaminated from leaking underground fuel tanks removed and closed in an earlier phase of the project.

Arizona Chemical, Design of Barrier Cover over Former Coal Storage Area, Dover Ohio.
Project included grading and design of earthen cap over former coal pile storage area to prevent human contact with contaminated soil. Site grading was balanced to minimize hauling contaminated soil offsite. Earthen cap included geotextile membrane. Site was seeded to create a low maintenance, natural grass and wild flower prairie.

Arizona Chemical, Expedited Corrective Measures, Dover, Ohio.
Project Engineer for the design of remedial actions at several location at Arizona Chemical's Dover, Ohio location. Project included the design of an asphalt cap, design of a concrete cap and removal of soil to prevent human contact with contaminated soil. Included in the project scope was the relocation of an existing water main, the design of a concrete retaining wall and grading to maintain the existing stormwater retention volumes.

Webster Spry Middle School, Soil Vapor Barrier Design, Webster, New York.
Project Engineer responsible for the design of a vapor barrier and passive venting system below the concrete slab of new building addition. System design included redesigning floor slab to include waterstops, a vapor barrier welded to strips placed into the foundation wall, and a passive ventilation system that could be easily converted into an active system.

Tenneco, Stormwater Outfall Remediation Design, Macedon, New York.
Project Manager responsible for the design of a collection and filtration system to remove packing pellets from the stormwater management system outfalls along the NYS Barge Canal.

Phase 1 Environmental Site Assessment
The Breakers, Stony Point NY

The project involved the identification of the drainage areas, regrading, design of a filtration system, and meeting with the NYSDEC regarding the SPDES permits for the facility.

Environmental Assessments

multiple, New York State Department of Transportation, Environmental Studies Review, New York.
Project Engineer responsible for the collection and review of all topics covered by Environmental Studies required for NYSDOT projects. These topics include surface waters, flood plains, ecology, wetlands, asbestos and hazardous waste. This work included collection of data, site inspections along corridor and report preparation.

Town of Westfield, Phase II Environmental Assessment, Westfield, New York.
Project Engineer for Phase II Environmental Site Assessment and Remediation for the Town of Westfield. Project included the sampling of soil, delineation of the spill, stockpiling and removal of the contaminated soil, and reports to the NYSDEC.

multiple, Phase I Environmental Assessments for Nextel, New York State.
Project Engineer for numerous Phase I environmental assessments associated with facility acquisition associated with their network operation and maintenance fleet completed to satisfy site selection requirements and to facilitate proposed construction projects. Work included conducting site inspections and personal interviews and researching property histories to identify potential environmental liabilities; report preparation and review and project coordination.

multiple, Phase I Environmental Assessments for Sprint, New York State.
Project Engineer for numerous Phase I environmental assessments completed to satisfy application requirements for selection of communication tower sites and to facilitate proposed construction projects. Work included conducting site inspections and personal interviews and researching property histories to identify potential environmental liabilities; report preparation and review and project coordination.

multiple, Phase I Environmental Assessments, New York State.
Project Engineer for numerous Phase I environmental assessments completed to satisfy application requirements for commercial mortgages or to facilitate proposed construction projects for various clients. Work included conducting site inspections and personal interviews and researching property histories to identify potential environmental liabilities; report preparation and review and project coordination.

Hydraulic Modeling

Babson College, Infrastructure Master Plan Study and Recommendations, Babson College - Wellesley, MA.
Project Engineer responsible for the evaluation of the existing underground utilities on campus to determine the available capacity and make recommendations for improvements based on their Facilities Plan Report for future expansion of the campus. Computer models were developed to evaluate existing sanitary sewer, storm sewer and water supply on campus. Once calibrated, the models were used to simulate future demands and to make recommendation for improvements.

Rochester Gas and Electric, Cooling Water Study and Recommendations, Rochester, New York.
Project Engineer for the field investigation and development of pressure water model at Russell Station Coal Fired Power Generation Facility utilizing Cybernet by Haestead Methods. The cooling water model was calibrated to the existing conditions. Once calibrated, the model was modified to simulate possible alterations in the cooling system to improve the hydraulic performance and increase the cooling efficiency of the system and identify areas needing maintenance.

Babson College, Off-campus Capacity Study, Wellesley, MA.
Project Engineer responsible for the evaluation of the available capacity of the sanitary sewers receiving effluent from Babson College. Project included inspection of manholes for surcharging, development of a computer model to assess remaining capacity, forecasting of future effluent volumes from the college based on facilities study, determining the weaknesses in the off-campus sanitary system and making recommendations to relieve those weaknesses.

SPDES Permitting

Municipal Separate Storm Sewer System (MS4) Program, Multiple Jurisdictions, New York Senior Engineer responsible for maintaining the MS4 permits in multiple Towns and Villages. Responsibilities include assisting municipalities with the six minimum measure, municipal personnel training, construction project oversight, annual reports, community participation and public hearings.

Callahan and Naninni Gravel, Multi-sector Industrial SPDES Permit, Blooming Grove, New York
Senior Engineer responsible for assisting the gravel mine with maintaining their stormwater discharge permit. Project included an Engineer's Report, application and updating the permit, sampling and annual reports.

Alexandra Mine Multi-sector Industrial SPDES Permit, Blooming Grove, New York
Senior Engineer responsible for assisting the gravel mine with maintaining their stormwater discharge permit. Project included an Engineer's Report, application and updating the permit, sampling and annual reports.

Town of Wawayanda Hall Mine Multi-sector Industrial SPDES Permit, Wawayanda, New York
Senior Engineer responsible for assisting the Municipality with their gravel mine by maintaining their stormwater discharge permit. Project included an Engineer's Report, application and updating the permit, sampling and annual reports.

Town of Thompson Katrina Falls Mine Multi-sector Industrial SPDES Permit, Wawayanda, New York
Senior Engineer responsible for assisting the Municipality with their gravel mine by maintaining their stormwater discharge permit. Project included an Engineer's Report, application and updating the permit, sampling and annual reports.

OSB Chauteaugay, LLC, SPDES Permitting and Stormwater Wetland Design, Chauteaugay, New York.
Project Engineer responsible for New York State Stormwater General Permit for Construction Activities under Phase I of EPA SPDES. The project included the designed of a Stormwater Wetland to protect an environmentally sensitive area against Non-Point Source Pollutants. Project consisted of two extended detention wet ponds utilizing natural vegetation and engineered inlet and outlet structures to maximize pollutant removal from the yard and parking lots of a 80 acre oriented strand board manufacturing facility.

Parking and Roadways Design

University of Rochester, Temporary Parking Area, Rochester, New York.
Project Engineer for a temporary 250 car parking area. Engineering design included a storm water detention pond, site grading, appurtenances, site lighting and electric, parking lot layout to minimize long term impact on the existing landscape and obtaining public agency approvals.

Remedial Investigations

Corning Incorporated, Sullivan Park Dye Testing, Gang Mills, New York.
Project Engineer responsible to assist in the determination of the true extents of the sewer systems discharging to specific, regulated, outfalls at their Sullivan Park facility. Project included the review of record drawings of the facility, and a 100% field check of the facility to

confirm the extent of the sewer systems. Dye testing was used as necessary to confirm connections to the system. Five separate systems were completed, which included storm, industrial and sanitary waste flows. The results of the investigation were documented in a report and on schematic drawings of the sewer systems.

Transportation Engineering

Town of Wallkill, Route 211 and Tower Drive Left Turn Lane, Wallkill, New York
Senior Engineer for design and construction documents for the additional of a second turn lane on State Route 211. The project included pavement widening, storm sewer replacement, sidewalks, maintenance of traffic, traffic signal replacement, coordination with the NYSDOT and construction inspection and oversight.

Town of Cornwall, Tamara Lane, Cornwall, New York.
Senior Engineer for design and construction documents for the rehabilitation of a Town street. Funding for the project was through a Community Development Block Grant. The multiple phase project included storm sewer replacement, sidewalks, maintenance of traffic, pavement replacement. and construction inspection and oversight.

Town of Cornwall, Clinton Street, Cornwall, New York.
Senior Engineer for design and construction documents for the rehabilitation of a Town street. Funding for the project was through a Community Development Block Grant. The multiple phase project included storm sewer replacement, sidewalks, maintenance of traffic, pavement replacement. and construction inspection and oversight.

Town of Cornwall, Hazen Street, Cornwall, New York.
Senior Engineer for design and construction documents for the rehabilitation of a Town street. Funding for the project was through a Community Development Block Grant. The multiple phase project included storm sewer replacement, maintenance of traffic pavement replacement. including construction inspection and oversight.

New York State Department of Transportation, Highway Reconstruction and Widening, Wayne County, New York.
Project Engineer for the $14.0 million reconstruction and widening of 5.3 miles of Route 104 in Wayne County for NYSDOT. The project was to provide two additional lanes with a divided median in the rural areas, and a five-lane section in a developed hamlet area. Preliminary and final design included new and rehabilitated pavement, closed drainage systems, bridge replacement for Salmon Creek, traffic control and construction staging.

Village of Webster, Road Rehabilitation, Webster, New York.
Project Engineer for design and construction documents for the rehabilitation of a village street. Project included watermain, storm and sanitary sewer replacement, maintenance of traffic, street lighting and pavement replacement. including construction inspection and oversight.

Main Department of Transportation, Shoulder Replacement, Scarborough, Maine.
Project Engineer for a 3.5-mile shoulder replacement project for Route 207, Scarborough Maine.

Maine Department of Transportation, Highway Reconstruction and Widening, Bangor, Maine.
Project Engineer for the reconstruction and widening of 2.1 miles of Route 15 in Bangor, Maine for Maine DOT. Preliminary and final design included new and rehabilitated pavement, turning lanes, closed drainage systems, traffic control and construction staging.

Underground Utilities and Treatment

Adelaar Casino Water System Reduced Pressure Zone, Town of Thompson, New York.
Senior Engineer responsible for the design of two reduced pressure zone valve vaults in the 2-mile watermain loop to intended to supply water to the casino. Water system pressures from the Village of Monticello fluctuated more than 60 psi throughout the day. To address pressures in the system exceeding 100-psi, two RPZ valves were added to the system after construction of the watermain had been started. The valves were designed in below grade vaults. The design included a 1MGD water tank to feed the RPZ zone. Check valves in the opposite direction of the RPZ valves were included in the design to allow bidirectional flow during periods of lower pressure in the operational day to allow the system to back feed remote sections of the distribution pipe network.

Town of Cornwall Sewer District #1 Plant Upgrades, Cornwall, New York
Senior Engineer responsible for design, construction documents and oversight of the required upgrades needed at the Town's 1.5 MGD Sanitary Sewer Plant to maintain their SPDES permit. NYSDEC is imposing more stringent discharge requirements for facilities along the Hudson River. With the added processes and proximity to the Hudson River the hydraulic grade line through the facility needed to be increased. The project includes the addition of a dechlorination tank and post treatment aeration. Additional upgrade to be completed at the facility include replacement of the existing rock media in the trickling filters with new high flow plastic media, rebuilding the secondary clarifier to meet current standards and replace flights and chains and increase the depth of the chlorination tank to meet current standards.

Town of New Windsor, New 12' Watermain, New Windsor, New York.
Senior Engineer for the design and construction documents for a new 12' watermain in the Town of New Windsor to upgrade and improve water distribution in preparation for a proposed cross connection with an adjoining municipality. Project included hydraulic modeling and design, coordination with existing utilities, thrust blocks, specifications, contract documents and obtaining permits from local and state agencies.

City of Port Jervis, Replacement of Existing 24" Trunk Sewer, Port Jervis, New York.
Senior Engineer for the design and construction documents for a 24" sanitary sewer trunk line in the City of Port Jervis to repair a failing section of the sewer collection system as part of a NYSDEC Consent Order Agreement associated with the City's SPDES Permit. Project included hydraulic modeling and design, coordination with existing utilities, specifications, and contract documents associated with the municipal bidding.

Town of New Windsor, Summit Drive Drainage Improvements, New Windsor, New York.
Senior Engineer for the design and construction documents for a upgrading and extending a stormwater collection system in the Town of New Windsor to relief stormwater ponding and basement flooding issues in the vicinity of the project. The project included applying for and was mostly funded with a Community Development Block Grant. Project included hydraulic modeling and design, coordination with existing utilities, specifications, and contract documents associated with the municipal bidding.

Town of New Windsor, Oak Street/Pine Street Drainage, New Windsor, New York.
Senior Engineer for the design and construction documents of a multi-year project to upgrading existing culverts and installation of a 36" storm sewer in the backyards of residence in the Town of New Windsor to relief flooding issues in the vicinity of the project. The project included applying for and was mostly funded with a Community Development Block Grant. Project included hydraulic modeling and design, coordination with existing utilities, obtaining easements, specifications, and contract documents associated with the municipal bidding.

Village of Otisville, Seybolt Avenue Watermain, Otisville, New York.
Senior Engineer for the design and construction documents for a multi-year project to upgrading the existing watermains on Seybolt Avenue and Orchard Street to improve water pressure and fire flow in the vicinity of the project. The project included applying for and was mostly funded with a Community Development Block Grant. Project included hydraulic modeling and design, coordination with existing utilities, specifications, NYSDOT Permitting and contract documents associated with the municipal bidding

Village of Otisville, Kelly Hill Road Watermain, Otisville, New York.
Senior Engineer for the design and construction documents to upgrading the existing watermain on Kelly Hill Road to improve water pressure and fire flow in the vicinity of the

project. The project included applying for and was mostly funded with a Community Development Block Grant. Project included hydraulic modeling and design, coordination with existing utilities, specifications, and contract documents associated with the municipal bidding

Town of New Windsor, Forge Hill Road Sewer Rehabilitation, New Windsor, New York.
Senior Engineer for the design and construction documents for an 8" to 12" sanitary sewer pipe bursting and lining project in the Town of New Windsor to repair a failing section and increase capacity of the sewer collection system in the vicinity of the project. The project included applying for and was mostly funded with a Community Development Block Grant. Project included hydraulic modeling and design, coordination with existing utilities, specifications, and contract documents associated with the municipal bidding.

Town of Cornwall Firthcliff Flow Management Plan, Cornwall New York
Senior Engineer responsible for preparation of the Flow Management Report. During Hurricane Irene, many facilities in the area had the collection systems submerged as well as basement being pumped. The extraordinary flows skewed the Annual Report information. As such, the 95% flow threshold was reached requiring the municipality to prepare a Flow Management Report to state how they would reduce the inflow and infiltration is the collection system.

Town of Monroe, Oak Orchard Water District Map, Plan and Report
Senior Engineer responsible for preparation of the Map, Plan and Report and cost estimate for the creation of a new water district in the Town of Monroe. The existing private water system was no longer being maintained by the original developer. The Town agreed to take ownership of the system and provide necessary upgrades to meet current health department regulations.

Town of Cornwall Inflow and Infiltration Study, Cornwall New York
Senior Engineer overseeing the Inflow and Infiltration program for the municipality. Project includes coordination of flow monitoring, televising, smoke testing, data interpretation, report preparation, and recommendation for future repairs and studies.

Village of Chester Inflow and Infiltration Study, Chester, New York
Senior Engineer overseeing the Inflow and Infiltration program for the municipality. Project includes coordination of flow monitoring, televising, smoke testing, data interpretation, report preparation, and recommendation for future repairs and studies.

Town of Cornwall Sewer District #1, Hurricane Irene Repairs, Cornwall New York
Senior Engineer overseeing repair work completed at the sanitary sewer plant in Cornwall, NY. During Hurricane Irene, when an upstream blockage in the adjacent river broke loose, an 8-foot wave overwhelmed the facility. Mud and gravel were deposited in all the processes and

the entire electrical system was damage. The facility had to be cleaned and rebuilt. The project required coordination with FEMA representative, FEMA forms, oversight of the contractors performing the cleaning and repair, and justification of equipment upgrades made during the repair.

Town of Chester Walton Lake Estates Water Filtration Plant, Monroe, New York.
Senior Engineer for the saline reduction design for the existing water filtration system in the Town of Chester. Project included hydraulic modeling and design, incorporation of a reverse osmosis system, water blending, PCL system control, PCL control design incorporating existing variable speed pumps, multiple chemical feed pumps, system levels and alarm functions.

Village of Chester Walton Lake Water Filtration Plant, Monroe, New York.
Senior Engineer for the design and construction documents for a replacement 1 MGD water filtration system in the Village of Chester. Project included hydraulic modeling and design, removal of existing green sand system, new microfiltration system design, PCL control design incorporating existing variable speed pumps, multiple chemical feed pumps, system levels and alarm functions, agency approvals, coordination with existing utilities, construction documents and specifications, construction oversight and coordination.

Babson College, Wellesley Center Fire Main, Wellesley, MA.
Project Engineer responsible for the modeling and design of a fire main to supply hydrants and sprinkler system at the Wellesley Center on Babson College. Project included modeling the water distribution system to determine static and dynamic system pressures and available flows. Design of fire main, thrust blocks, construction documents and specifications.

Village of Webster, New 10' Watermain, Webster, New York.
Project Engineer for the design and construction documents for a new 10' watermain in the Village of Webster. Project included hydraulic modeling and design, coordination with existing utilities, thrust blocks, specifications and obtaining permits from local and state agencies.

University of Rochester, New Water and Fire Services, Rochester, New York. Project Engineer responsible for obtaining state and local permits for new fire and water services at the renovated gymnasium/field house. Project included construction documents and inspection services for the AWWA Standard flushing, disinfection and pressure tests.

Monroe County Water Authority, Water Main Replacement, Various Locations in Monroe County, New York.
Replacement of 6 through 36 inch watermains at various locations in Monroe County, NY. Included cost/benefit analysis, thrust blocks design, Specifications and permitting

APPENDIX A

SITE PHOTOGRAPHS

22 Hudson Drive Building

29 Hudson Drive – Marina Main Office, Sales and Repair Shop

31 Hudson Drive, South Side

29 Hudson Drive, North Face

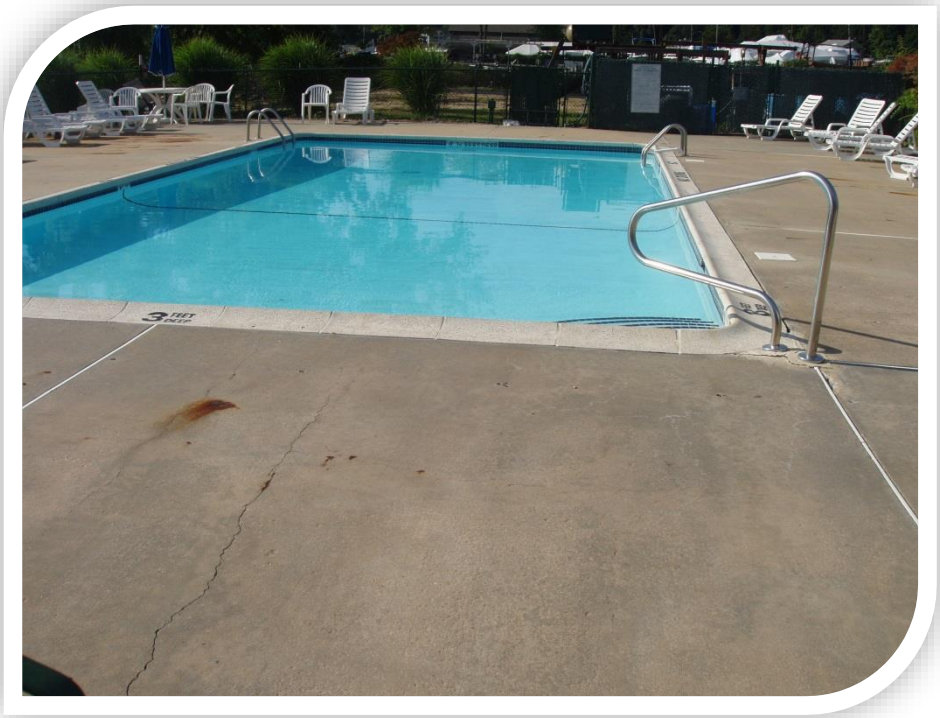
Boat Storage north of 31 Hudson Drive

Storage Trailers and boats south of 22 Hudson Drive

Dumpster near pool facility

Staining in Southern Parking Lot Area

Storage Shed near Pool Area Line



Pool Area

Pool Filter Area

Dock Sanitary Pumping System

Water and Sanitary Dock Connections

Main Gate Fenced Enclusure

South face of Building 22

North face of Building 22

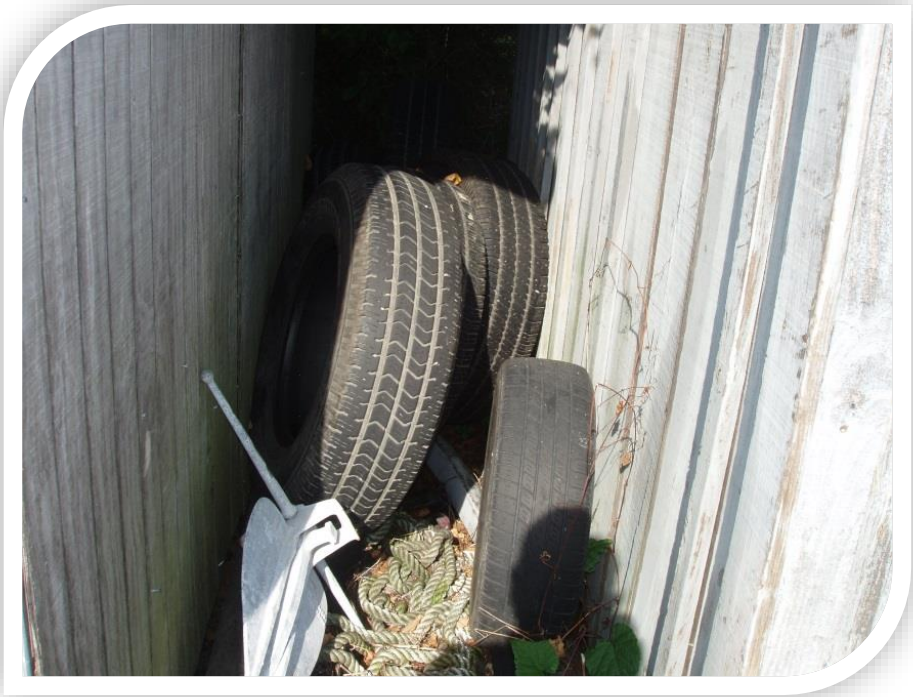
Barrels of Waste Oil near sheds on west side of property

Barrels stored behind building on west side of property

Stained soil along west side of property

Stained soil behind 22 Hudson

Shed between building on west side of property near 29 Hudson



Material stored between sheds, west side of property near 29 Hudson

Storage trailer and equipment behind 31Hudson

Storage trailer, barrels and equipment behind Quonset hut north of 31 Hudson

Material stored under trailer behind 31 Hudson

Stained soil behind 31 Hudson

Stored boat north of 31 Hudson, staining under boat

Marina materials stored north side of property

Barrels and material stored north side of property

Barrels and material stored north side of property

Barrels and material stored north side of property

Trailer with discarded tank, north side of property

Truck with strained soil, north side of property

Discarded boat, north side of property

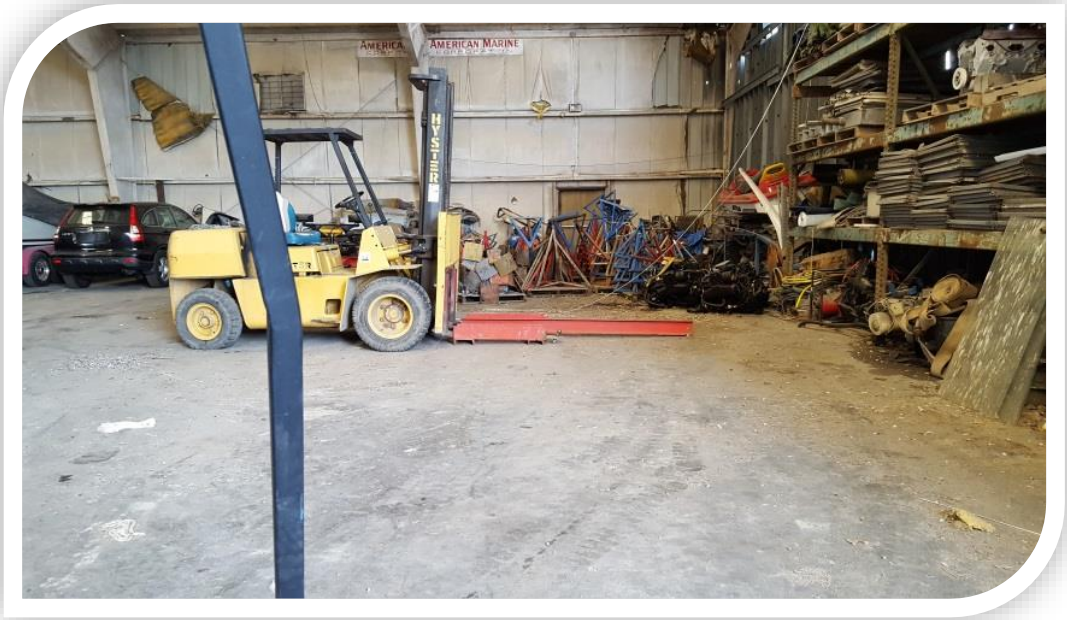
Discarded boat, north side of property

Abandoned restroom facility, northeast side of property

Shed near northern launch with dock waste pump

Dock office building east side of property

Recreational trailers near Dock Office, east side of property



Interior of 31 Hudson, equipment storage

Boat motor storage in 31 Hudson

Waste Oil tank inside Quonset hut, no containment

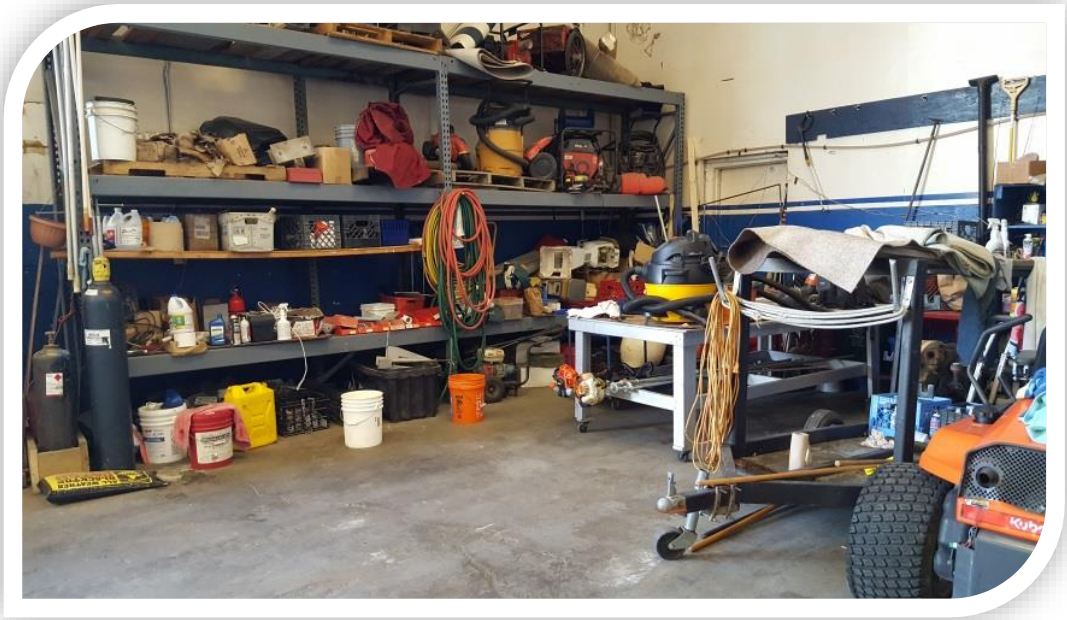
Interior Quonset hut

Interior Quonset hut

Interior Quonset Hut

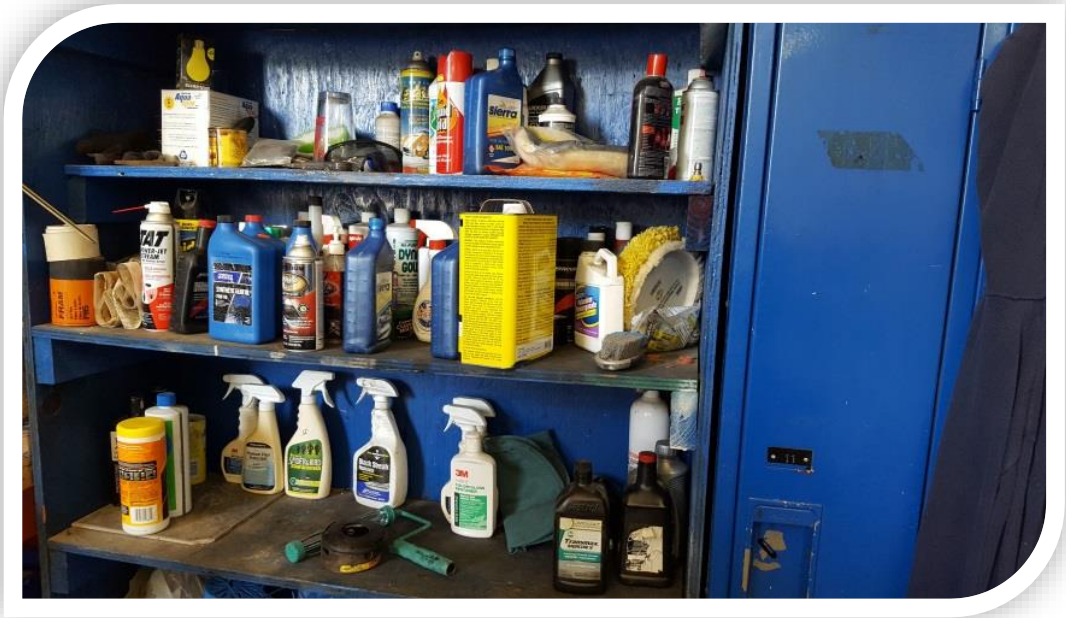
Maintenance Shop, north side of 29 Hudson

Maintenance Shop parts area, north end 29 Hudson



Storage area inside Maintenance shop, 29 Hudson

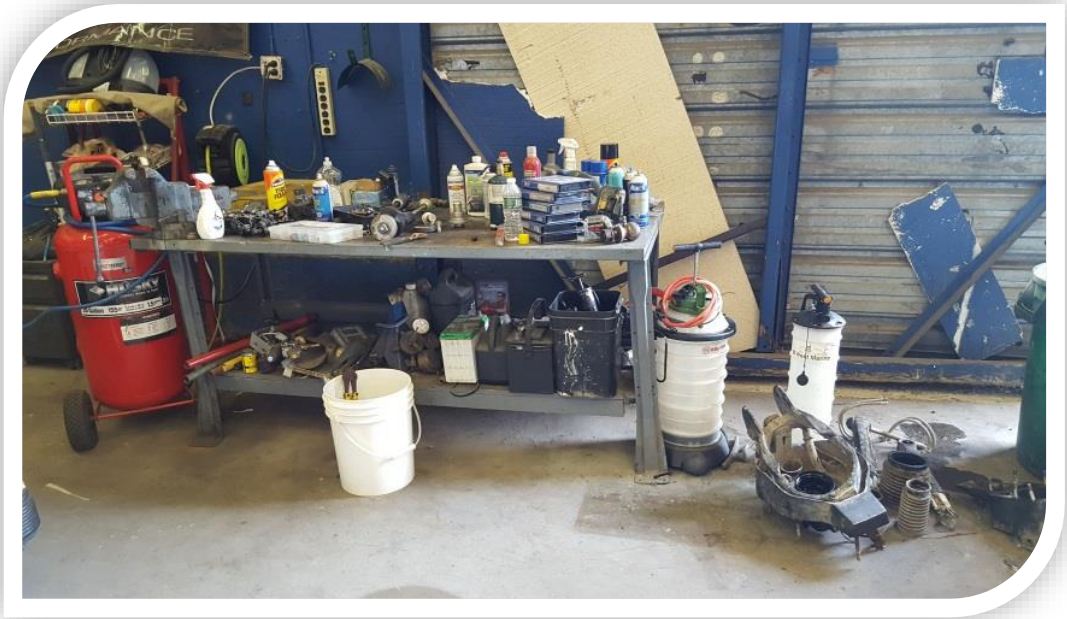
Storage area inside maintenance shop, 29 Hudson



Cleaner and solvent storage area inside maintenance shop, 29 Hudson

Flammable material cabinet inside maintenance shop, 29 Hudson

Storage area inside maintenance shop, 29 Hudson



Workbench inside maintenance shop, 29 Hudson

Rusty transformer near entrance to south property

APPENDIX B

REGULATORY DATABASE REVIEW

22, 29, 31 Hudson Dr

22, 29, 31 Hudson Dr
Stony Point, NY 10980

Inquiry Number: 4686673.5
July 29, 2016

The EDR-City Directory Image Report

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

Executive Summary

Findings

City Directory Images

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

Year	*Target Street*	*Cross Street*	*Source*
2013	☑	☐	Cole Information Services
2008	☑	☐	Cole Information Services
2003	☑	☐	Cole Information Services
1999	☑	☐	Cole Information Services
1995	☑	☐	Cole Information Services
1992	☑	☐	Cole Information Services
1989	☑	☐	City's City Directory
1973	☐	☐	City's City Directory

RECORD SOURCES

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FINDINGS

TARGET PROPERTY STREET

22, 29, 31 Hudson Dr
Stony Point, NY 10980

Year	*CD Image*	*Source*	
HUDSON DR			
2013	pg A1	Cole Information Services	
2008	pg A2	Cole Information Services	
2003	pg A3	Cole Information Services	
1999	pg A4	Cole Information Services	
1995	pg A5	Cole Information Services	
1992	pg A6	Cole Information Services	
1989	pg A7	City's City Directory	
1973	-	City's City Directory	Street not listed in Source

FINDINGS

CROSS STREETS

No Cross Streets Identified

City Directory Images

Target Street	Cross Street	Source
✓	-	Cole Information Services

HUDSON DR 2013

1	STONY POINT BAY MARINA & YACHT CLUB
2	W CURY
9	PATSYS BAY MARINA INC
29	OUT OF THE BLUE BAR & GRILL
	RIVER BARGE & GRILL THE

Target Street	Cross Street	Source
✓	-	Cole Information Services

HUDSON DR 2008

2	W CURY
9	ALL AROUND MOVING
	PATSYS BAY MARINA INC
10	MIKE KENNEDY
22	HUDSON CLUB
	THE STUART ROBERTS CO
29	STONY POINT BAY MARINA
36	AIRGEN INC
	SEAWEED YACHT CLUB INC
	WILLOW COVE MARINA INC

Target Street	Cross Street	Source
✓	-	Cole Information Services

HUDSON DR 2003

1	RESIDENTIAL AUTOMOTICES INC
2	W CURY
9	PATSYS BAY MARINA INC
10	PHILIP CARLSON
22	FARMERS MARKET OF STONY POINT
	MONISMART SYSTEMS LLC
29	OCCUPANT UNKNOWN
	STONY POINT BAY MARINE CORP
36	ANTON KLECAR
	CWS 32 INC
	SEAWEED YACHT CLUB
	WILLOW COVE MARINA

Target Street	Cross Street	Source
✓	-	Cole Information Services

HUDSON DR 1999

2	BARRY FIXLER
	GEORGE JOHNSON
	W CURY
3	OCCUPANT UNKNOWN
8	OCCUPANT UNKNOWN
9	MOBILE MUSIC MAN
	WILLOW COVE MARINA INCORPORATED
22	WALLYS ICE CREAM
29	DEAN CIOPPA
	ROBERT MILLER
33	F MURPHY
	WILLIAM COUGHLIN
36	BOATWORKS
	VENOM POWER BOATS STONY POINT MARINA

Target Street	Cross Street	Source
✓	-	Cole Information Services

HUDSON DR 1995

0	MARINE GLASSWORKS INC
	RESIDENTIAL TIRE & AUTO SVC
	SEAWEED YACHT CLUB INC
	STONY POINT BAY CORP
9	EAST COAST OPERATION SVCS INC
	WILLOW COVE MARINA INC
22	SMITH F WILSON
29	SUNRISE CANVAS
36	SEAFARER CANVAS
38	STONY POINT MARINA & YACHT CLUB

Target Street	Cross Street	Source
✓	-	Cole Information Services

HUDSON DR 1992

0	BRADLEY MOBIL MARINE INC
	KACENS, GIRTS
	MARINE INNOVATIONS INC
	MURPHY, F
	NEXT, W
	RAKOWSKI, CHESTER
	RESIDENTIAL TIRE & AUTO SVC
	SEAWEED YACHT CLUB INC
	STONY POINT BAY CORP
	SURKS, DAVID
2	ALBER, ROBERT
	JOHNSON, GEORGE
	OLIVER, RICHARD A, JR
	WILLOW COVE MARINA INC
3	JENNINGS, NICOLETTE
22	F WILSON SMITH INC, FOOD DISTRIBTR
	SMITH, F WILSON, FOOD DSTRBTR
	WILSON, SMITH, FOOD DISTRIBUTOR
33	SUNRISE CANVAS
36	CARPENTERS UNION 964 APPRENTICESHIP TRAINING FUND B

Target Street	Cross Street	Source
✓	-	City's City Directory

HUDSON DR 1989

0-BUS 3-RES 0-NEW

HUDSON DR (Stony Point NY)
10980

From Tompkins Ave n, 4 e of
N Liberty Dr (US Hwy 9 W)

2	Corts M L	429-8215	86
2	Masterson Walt	429-3717	89
2	Niles Peter W	+429-7679	90
2	★Willow Cove Marina	786-5270	83
4	★Stony Point Bay Corp	+786-3700	90
22	★Smith F Wilson food distribtr	429-4357	77
36	★Carpenters Un 964 Apprenticeship Trng Fund B	786-5103	77
--	Fliegel Henry	786-3269	89
--	Horn Joseph	+429-2743	90
--	Kacens Girts	429-1923	88
--	Murphy F	786-3624	84
--	Next W	+429-7311	90
--	★Residential Tire & Auto Service	429-5744	87
--	SEAWEED YACHT CLUB		
	Mutinsky James	947-3015	85
	★Seaweed Yacht Club	786-8731	74
--	★Stony Point Marina & Yacht Club Inc	429-4242	89
--	Surks David	429-9664	87

7-BUS 10-RES 4-NEW

HUDSON TER (Piermont NY)
68

22, 29, 31 Hudson Dr

22, 29, 31 Hudson Dr
Stony Point, NY 10980

Inquiry Number: 4686673.8
July 28, 2016

EDR Building Permit Report

Target Property and Adjoining Properties

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

EDR Building Permit Report: Search Documentation

7/28/16

Site Name:
22, 29, 31 Hudson
22, 29, 31 Hudson
Stony Point, NY 10980

EDR Inquiry # 4686673.8

Client Name:
Atzl, Scatassa, & Zigler PC
234 North Main Street
New City, NY 10956

Contact: John Szarowski

Search Documentation

DATA GAP

The complete collection of Building Permit data available to EDR has been searched, and as of 7/28/16, EDR does not have access to building permits in the city where your target property is located (Stony Point, NY).

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EDR BUILDING PERMIT REPORT

About This Report

The EDR Building Permit Report provides a practical and efficient method to search building department records for indications of environmental conditions. Generated via a search of municipal building permit records gathered from more than 1,600 cities nationwide, this report will assist you in meeting the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

Building permit data can be used to identify current and/or former operations and structures/features of environmental concern. The data can provide information on a target property and adjoining properties such as the presence of underground storage tanks, pump islands, sumps, drywells, etc., as well as information regarding water, sewer, natural gas, electrical connection dates, and current/former septic tanks.

ASTM and EPA Requirements

ASTM E 1527-13 lists building department records as a "standard historical source," as detailed in § 8.3.4.7: "Building Department Records - The term building department records means those records of the local government in which the property is located indicating permission of the local government to construct, alter, or demolish improvements on the property." ASTM also states that "Uses in the area surrounding the property shall be identified in the report, but this task is required only to the extent that this information is revealed in the course of researching the property itself."

EPA's Standards and Practices for All Appropriate Inquires (AAI) states: "§312.24: Reviews of historical sources of information. (a) Historical documents and records must be reviewed for the purposes of achieving the objectives and performance factors of §312.20(e) and (f). Historical documents and records may include, but are not limited to, aerial photographs, fire insurance maps, building department records, chain of title documents, and land use records."

Methodology

EDR has developed the EDR Building Permit Report through our partnership with BuildFax, the nation's largest repository of building department records. BuildFax collects, updates, and manages building department records from local municipal governments. The database now includes 30 million permits, on more than 10 million properties across 1,600 cities in the United States.

The EDR Building Permit Report comprises local municipal building permit records, gathered directly from local jurisdictions, including both target property and adjoining properties. Years of coverage vary by municipality. Data reported includes (where available): date of permit, permit type, permit number, status, valuation, contractor company, contractor name, and description.

Incoming permit data is checked at seven stages in a regimented quality control process, from initial data source interview, to data preparation, through final auditing. To ensure the building department is accurate, each of the seven quality control stages contains, on average, 15 additional quality checks, resulting in a process of approximately 105 quality control "touch points."

For more information about the EDR Building Permit Report, please contact your EDR Account Executive at (800) 352-0050.

EDR® Environmental Data Resources Inc

BUILD FAX® PROPERTY HISTORY

22, 29, 31 Hudson Dr

22, 29, 31 Hudson Dr
Stony Point, NY 10980

Inquiry Number: 4686673.7
August 02, 2016

EDR Environmental Lien and AUL Search

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

EDR Environmental Lien and AUL Search

The EDR Environmental Lien and AUL Search Report provides results from a search of available current land title records for environmental cleanup liens and other activity and use limitations, such as engineering controls and institutional controls.

A network of professional, trained researchers, following established procedures, uses client supplied address information to:

- search for parcel information and/or legal description;
- search for ownership information;
- research official land title documents recorded at jurisdictional agencies such as recorders' offices, registries of deeds, county clerks' offices, etc.;
- access a copy of the deed;
- search for environmental encumbering instrument(s) associated with the deed;
- provide a copy of any environmental encumbrance(s) based upon a review of key words in the instrument(s) (title, parties involved, and description); and
- provide a copy of the deed or cite documents reviewed.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EDR Environmental Lien and AUL Search

TARGET PROPERTY INFORMATION

ADDRESS

22, 29, 31 Hudson Dr
22, 29, 31 Hudson Dr
Stony Point, NY 10980

RESEARCH SOURCE

Source 1:

Rockland County Recorde
Rockland, NY

PROPERTY INFORMATION

Deed 1:

Type of Deed:	Bargain & Sale Deed
Title is vested in:	Homestead Avenue LLC
Title received from:	PII Stone Point Realty LLC
Deed Dated	12/19/2011
Deed Recorded:	12/21/2011
Book:	NA
Page:	NA
Volume:	NA
Instrument:	2011-00045065
Docket:	NA
Land Record Comments:	see exhibit
Miscellaneous Comments:	NA
Legal Description:	see exhibit
Legal Current Owner:	Homestead Avenue LLC
Parcel # / Property Identifier:	01500400060006
Comments:	see exhibit

Deed 2:

Type of Deed:	Bargain and Sale Deed
Title is vested in:	Libertyville Stony Point LLC
Title received from:	Wayne Corts
Deed Dated	1/1/2011
Deed Recorded:	2/3/2011
Book:	NA
Page:	NA
Volume:	NA
Instrument:	2011-00005181
Docket:	NA
Land Record Comments:	

	see exhibit
Miscellaneous Comments:	NA
Legal Description:	see exhibit
Legal Current Owner:	Libertyville Stony Point LLC
Parcel # / Property Identifier:	01500400060003
Comments:	see exhibit

Deed 3:

Type of Deed:	Bargain & Sale Deed
Title is vested in:	Libertyville Stony Point LLC
Title received from:	Stony Point Bay Corp
Deed Dated	11/30/2010
Deed Recorded:	12/10/2010
Book:	NA
Page:	NA
Volume:	NA
Instrument:	2010-00044731
Docket:	NA
Land Record Comments:	see exhibit
Miscellaneous Comments:	NA
Legal Description:	see exhibit
Legal Current Owner:	Libertyville Stony Point LLC
Parcel # / Property Identifier:	01500400060004
Comments:	see exhibit

ENVIRONMENTAL LIEN

Environmental Lien: Found ☐ Not Found ☒

OTHER ACTIVITY AND USE LIMITATIONS (AULs)

AULs: Found ☐ Not Found ☒

Deed Exhibit 1

Paul Piperato, County Clerk
1 South Main St Ste 100
New City, NY 10956
(845) 638-5070

Rockland County Clerk Recording Cover Sheet

Received From :
HILL N DALE ABSTRACTERS INC
20 SCOTHTOWN AVENUE
P O BOX 547
GOSHEN, NY 10924

Return To :
HILL N DALE ABSTRACTERS INC
20 SCOTHTOWN AVENUE
P O BOX 547
GOSHEN, NY 10924

First GRANTOR
PII STONY POINT REALTY LLC

First GRANTEE
HOMESTEAD AVENUE LLC

Index Type : Land Records
Instr Number : 2011-00045065
Book : **Page :**

Type of Instrument : Deed
Type of Transaction : Deed Other
Recording Fee : $326.00

Recording Pages : 7

Real Estate Transfer Tax

RETT # :	1780
Deed Amount :	$560,000.00
RETT Amount :	$2,240.00
Total Fees :	$2,566.00

Doc ID - 023810910007

The Property affected by this instrument is situated in Stony Point, in the County of Rockland, New York

State of New York
County of Rockland
I hereby certify that the within and foregoing was recorded in the Clerk's office for Rockland County, New York

On (Recorded Date) : 12/21/2011
At (Recorded Time) : 11:26:00 AM

Paul Piperato, County Clerk

UNOFFICIAL COPY

This sheet constitutes the Clerks endorsement required by Section 319 of Real Property Law of the State of New York

Entered By: HAH Printed On : 12/28/2011 At : 11:58:24AM

BARGAIN AND SALE DEED
WITH COVENANT AGAINST GRANTOR'S ACTS

HN 46014

THIS INDENTURE made the 19th day of December, two thousand eleven

BETWEEN PII STONY POINT REALTY, LLC, a New Jersey limited liability company, having an address at c/o Palisades Regional Investment Fund II, LLC, 2160 North Central Road, Suite 308, Fort Lee, New Jersey 07024, party of the first part, and HOMESTEAD AVENUE LLC, a New York limited liability company, having an address of 90 Crystal Run Road, Suite 400, Middletown, New York 10941, party of the second part,

WITNESSETH that the party of the first part, in consideration of ONE AND 00/100 ($1.00) DOLLARS, lawful money of the United States, and other good and valuable consideration paid by the party of the second part, does hereby grant and release unto the party of the second part, the heirs or successors and assigns of the party of the second part forever,

SEE SCHEDULE A ATTACHED HERETO AND MADE A PART HEREOF.

TOGETHER with all right, title and interest, if any, of the party of the first part in and to any streets and roads abutting the above described premises to the center lines thereof,

TOGETHER with the appurtenances and all the estate and rights of the party of the first part in and to said premises,

TOGETHER with all rights, privileges and easements of record affecting said premises.

BEING the same premises conveyed by HUDSON POINT REALTY, LLC to PII STONY POINT REALTY, LLC by Deed, dated December 6, 2011, which Deed was recorded in the Rockland County Clerk's Office on December 9th, 2011 as Instrument #2011-43921.

TO HAVE AND TO HOLD the premises herein granted unto the party of the second part, the heirs or successors and assigns of the party of the second part forever.

AND the party of the first part covenants that the party of the first part has not done or suffered anything whereby the said premises have been encumbered in any way whatever, except as aforesaid.

UNOFFICIAL COPY

HILL-N-DALE ABSTRACTERS, INC.
20 SCOTCHTOWN AVENUE
P.O. BOX 547
GOSHEN, NEW YORK 10924
(845) 294-5110
FAX (845) 294-9581

AND the party of the first part, in compliance with Section 13 of the Lien Law, covenants that the party of the first part will receive the consideration for this conveyance and will hold the right to receive such consideration as a trust fund to be applied first for the purpose of paying the cost of the improvement and will apply the same first to the payment of the cost of the improvement before using any part of the total of the same for any other purpose.

(The word "party" shall be construed as if it read "parties" whenever the sense of this indenture so requires.)

IN WITNESS WHEREOF, the party of the first part has duly executed this deed the day and year first above written.

PII STONY POINT REALTY, LLC

By: _____
Mark W. Zurlini, MEMBER

STATE OF New Jersey)
)ss:
COUNTY OF Bergen)

On the 19 day of December, 2011, before me, the undersigned, a Notary Public in and for said State personally appeared Mark W Zurlini, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity and that by his/her/their signature(s) on the instrument the individual(s) or the person upon behalf of which the individual(s) acted, executed the instrument.

_____
Notary Public
JOHN S. STEWART
ATTORNEY AT LAW
STATE OF NEW JERSEY

R+R: MICHAEL BLUSTEIN
10 MATTHEWS ST
GOSHEN, NY 10924

UNOFFICIAL COPY

ALL that certain plot, piece or parcel of land, together with the buildings and improvements thereon erected, situate, lying and being in the Town of Stony Point, County of Rockland and State of New York and shown and designated as Lot 1 on a certain map entitled, "SUBDIVISION OF PROPERTY FOR VINCENT P. ALTOMONTE" made by Atzl & Scatassa, dated April 20, 1984 and filed in the Office of the Clerk of the County of Rockland on August 16, 1984 in Book 102 of Maps, at Page 30 as Map No. 5648, which lot is more particularly bounded and described as follows:

BEGINNING at a point on the easterly right of way line of the Penn-Central Railroad (West Shore Division), said point being located at the northwest corner of lands now or formerly of Edna M. Schumacher (Tax Lot 23-201), RUNNING THENCE

1) North 16 degrees 37 minutes 00 seconds East, along the easterly right of way line of the Penn-Central Railroad (West Shore Division), a distance of 392.89 feet (incorrectly set forth in Liber 81 of Land Records at Page 250);

RUNNING THENCE along the division line of Lot No. 2 and Lot No. 1 of Subdivision of Property for Vincent P. Altomonte filed in the Rockland County Clerk's Office on August 16, 1984 in Book 102 Page 30 as Map No. 5648, the following four (4) courses and distances:

2) South 73 degrees 23 minutes 00 seconds East, a distance of 156.00 feet;
3) South 16 degrees 37 minutes 00 seconds West, a distance of 163.03 feet;
4) South 30 degrees 35 minutes 50 seconds West, a distance of 231.82;
5) South 16 degrees 16 minutes 37 seconds West, a distance of 5.72 feet;
THENCE
6) North 72 degrees 55 minutes 00 seconds West, along the northerly line of lands now or formerly of Edna M. Schumacher (Tax Lot 23-201), a distance of 100.00 feet to the point or place of BEGINNING.

TOGETHER with 20 foot wide easement for ingress and egress adjacent to the northerly line of the above described premises more particularly bounded and described as follows:

BEGINNING at a point on the easterly right of way line of the Penn-Central Railroad (West Shore Drive), where the same is intersected by the dividing line between Lots 1 and 2 and

RUNNING THENCE (1) along the easterly right of way line of the Penn-Central

Continued On Next Page

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Railroad on a course of North 16 degrees 37 minutes 00 seconds East, a distance of 20.00 feet to a point;

THENCE (2) turning and running through Lot 2 on a course of South 73 degrees 23 minutes 00 seconds East, a distance of 206.00 feet to a point in the westerly line of lands now or formerly of Stony Point Bay Corp.;

THENCE (3) turning and running along the same on a course of South 16 degrees 37 minutes 00 seconds West, a distance of 20.00 feet to a point;

THENCE (4) turning and running along the northerly line of a 50 foot wide right of way hereinafter mentioned and along the northerly line of Lot 1 on a course of North 73 degrees 23 minutes 00 seconds West a distance of 206.00 feet to a point in the easterly line of the Penn-Central Railroad and the point or place of BEGINNING.

AND ALSO TOGETHER with a 50 foot wide easement for ingress and egress adjacent to the easterly line of the above described premises, more particularly bounded and described as follows:

BEGINNING at a point located at the southeast corner of Lot No. 1 on the aforementioned subdivision Map of Vincent P. Altomonte and

RUNNING THENCE (1) along the easterly line of Lot 1 on a course of North 16 degrees 37 minutes 00 seconds East, a distance of 5.72 feet to a point;

THENCE (2) continuing along the same on a course North 30 degrees 35 minutes 50 seconds East, a distance of 231.82 feet to a point;

THENCE (3) continuing along the same on a course of North 16 degrees 37 minutes 00 seconds East, a distance of 163.03 feet to a point in the southerly line of the 20 foot wide right of way aforementioned;

THENCE (4) turning and running along the same on a course of South 73 degrees 23 minutes 00 seconds East, a distance of 50.00 feet to a point in the westerly line of lands now or formerly of Stony Point Bay Corp.;

THENCE (5) turning and running along the same on a course of South 16 degrees 37 minutes 00 seconds West, a distance of 169.29 to a point;

THENCE (6) continuing along the same on a course of South 30 degrees 35

Continued On Next Page

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minutes 50 seconds West, a distance of 231.82 feet to a point in the northerly line of lands now or formerly of Edna M. Schumacher;

THENCE (7) turning and running along the same on a course of North 72 degrees 55 minutes 0 seconds West, a distance of 50.00 feet to the point or place of BEGINNING.

AND ALSO TOGETHER with a 50 foot wide right of way over the lands of Wayne Corts (Tax Lot 23-200) and over the lands of Edna M. Schumacher (Tax Lot 23-201) described as follows:

BEGINNING at a point on the northerly right of way line of Tomkins Avenue Ext., said point being located at the southwest corner of lands now or formerly of Wayne Corts (Tax Lot 23-200);

RUNNING THENCE along the easterly line of Mary T. O'Connell (Tax Lot 23-199), the following two (2) courses and distances:

1) North 38 degrees 38 minutes 30 seconds East, a distance of 67.25 feet;
2) North 37 degrees 29 minutes 00 seconds East, a distance of 134.50 feet;
THENCE
3) North 24 degrees 20 minutes 26 seconds East, a distance of 187.50 feet;
THENCE
4) North 16 degrees 37 minutes 00 seconds East, a distance of 200.15 feet;
THENCE
5) South 72 degrees 55 minutes 00 seconds East, a distance of 50.00 feet;

RUNNING THENCE through lands now or formerly of Edna Schumacher (Tax Lot 23-201) and lands now or formerly of Wayne Corts (Tax Lot 23-200), the following three (3) courses and distances:

6) South 16 degrees 37 minutes 00 seconds West, a distance of 203.11 feet;
THENCE
7) South 24 degrees 20 minutes 26 seconds West, a distance of 196.63 feet;
THENCE
8) South 37 degrees 29 minutes 00 seconds West, a distance of 149.59 feet;
THENCE
9) South 79 degrees 03 minutes 15 seconds West along the northerly right of way line of Tomkins Avenue Ext., a distance of 77.40 feet to the point or place of BEGINNING.

UNOFFICIAL COPY

PLEASE TYPE OR PRESS FIRMLY WHEN WRITING ON FORM
INSTRUCTIONS: http:// www.orps.state.ny.us or PHONE (518) 473-7222

FOR COUNTY USE ONLY

C1. SWIS Code: 392800

C2. Date Deed Recorded: 12 / 21 / 11 (Month Day Year)

C3. Book: 2011 C4. Page: 45065

REAL PROPERTY TRANSFER REPORT

STATE OF NEW YORK
STATE BOARD OF REAL PROPERTY SERVICES

RP - 5217

RP-5217 Rev 3/97

PROPERTY INFORMATION

1. Property Location: 22 (STREET NUMBER) Hudson Drive (STREET NAME)
Stony Point (CITY OR TOWN) (VILLAGE) 10980 (ZIP CODE)

2. Buyer Name: Homestead Avenue LLC (LAST NAME / COMPANY) (FIRST NAME)
(LAST NAME / COMPANY) (FIRST NAME)

3. Tax Billing Address: Indicate where future Tax Bills are to be sent if other than buyer address (at bottom of form)
(LAST NAME / COMPANY) (FIRST NAME)
(STREET NUMBER AND STREET NAME) (CITY OR TOWN) (STATE) (ZIP CODE)

4. Indicate the number of Assessment Roll parcels transferred on the deed: 1 # of Parcels OR ☐ Part of a Parcel

(Only if Part of a Parcel) Check as they apply:
4A. Planning Board with Subdivision Authority Exists ☐
4B. Subdivision Approval was Required for Transfer ☐
4C. Parcel Approved for Subdivision with Map Provided ☐

5. Deed Property Size: (FRONT FEET) X (DEPTH) OR 1.26 (ACRES)

6. Seller Name: PII Stony Point Realty, LLC (LAST NAME / COMPANY) (FIRST NAME)
(LAST NAME / COMPANY) (FIRST NAME)

7. Check the box below which most accurately describes the use of the property at the time of sale:

A	☐ One Family Residential	E	☐ Agricultural	I	☐ Community Service
B	☐ 2 or 3 Family Residential	F	☒ Commercial	J	☐ Industrial
C	☐ Residential Vacant Land	G	☐ Apartment	K	☐ Public Service
D	☐ Non-Residential Vacant Land	H	☐ Entertainment / Amusement	L	☐ Forest

Check the boxes below as they apply:
8. Ownership Type is Condominium ☐
9. New Construction on Vacant Land ☐
10A. Property Located within an Agricultural District ☐
10B. Buyer received a disclosure notice indicating that the property is in an Agricultural District ☐

SALE INFORMATION

11. Sale Contract Date: 12 / 19 / 11 (Month Day Year)

12. Date of Sale / Transfer: 12 / 19 / 11 (Month Day Year)

13. Full Sale Price: 560,000.00

(Full Sale Price is the total amount paid for the property including personal property. This payment may be in the form of cash, other property or goods, or the assumption of mortgages or other obligations.) *Please round to the nearest whole dollar amount.*

14. Indicate the value of personal property included in the sale: 0.00

15. Check one or more of these conditions as applicable to transfer:
A ☐ Sale Between Relatives or Former Relatives
B ☐ Sale Between Related Companies or Partners in Business
C ☐ One of the Buyers is also a Seller
D ☐ Buyer or Seller is Government Agency or Lending Institution
E ☐ Deed Type **not** Warranty or Bargain and Sale (Specify Below)
F ☐ Sale of Fractional or Less than Fee Interest (Specify Below)
G ☐ Significant Change in Property Between Taxable Status and Sale Dates
H ☐ Sale of Business is Included in Sale Price
I ☐ Other Unusual Factors Affecting Sale Price (Specify Below)
J ☒ None

ASSESSMENT INFORMATION - Data should reflect the latest Final Assessment Roll and Tax Bill

16. Year of Assessment Roll from which information taken: 11

17. Total Assessed Value (of all parcels in transfer): 466619

18. Property Class: 449 -

19. School District Name: North Rockland

20. Tax Map Identifier(s) / Roll Identifier(s) (If more than four, attach sheet with additional identifier(s))

Sec 15.04 Block 6 Lot 6

CERTIFICATION

I certify that all of the items of information entered on this form are true and correct (to the best of my knowledge and belief) and I understand that the making of any willful false statement of material fact herein will subject me to the provisions of the penal law relative to the making and filing of false instruments.

BUYER

Homestead Ave LLC

BUYER SIGNATURE — DATE: 12/19/11

90 (STREET NUMBER) Crystal Run Road, Ste 400 (STREET NAME (AFTER SALE))

Middletown (CITY OR TOWN) NY (STATE) 10941 (ZIP CODE)

BUYER'S ATTORNEY

Blustein (LAST NAME) Michael S. (FIRST NAME)

845 (AREA CODE) 291-0011 (TELEPHONE NUMBER)

SELLER

12/19/11

NEW YORK STATE COPY

UNOFFICIAL COPY

Deed Exhibit 2

Paul Piperato, County Clerk
1 South Main St Ste 100
New City, NY 10956
(845) 638-5221

Rockland County Clerk Recording Cover Sheet

Received From :
HILL N DALE ABSTRACTERS
PO BOX 547
GOSHEN, NY 10924

Return To :
HILL N DALE ABSTRACTERS
PO BOX 547
GOSHEN, NY 10924

First GRANTOR
CORTS, WAYNE

First GRANTEE
LIBERTYVILLE STONY POINT LLC

Index Type : Land Records
Instr Number : 2011-00005181
Book : **Page :**

Type of Instrument : Deed
Type of Transaction : Deed Other
Recording Fee : $321.00

Recording Pages : 6

The Property affected by this instrument is situated in Stony Point, in the County of Rockland, New York

Real Estate Transfer Tax

RETT # :	2188
Deed Amount :	$1,850,000.00
RETT Amount :	$7,400.00
Total Fees :	$7,721.00

State of New York
County of Rockland
I hereby certify that the within and foregoing was recorded in the Clerk's office for Rockland County, New York

On (Recorded Date) : 02/03/2011
At (Recorded Time) : 10:46:00 AM

Doc ID - 021657720006

Paul Piperato, County Clerk

UNOFFICIAL COPY

This sheet constitutes the Clerks endorsement required by Section 319 of Real Property Law of the State of New York

Entered By: PM Printed On : 02/14/2011 At : 10:47:12AM

BARGAIN AND SALE DEED
WITH COVENANT AGAINST GRANTOR'S ACTS

HN43920

THIS INDENTURE made as of the 1st day of January, two thousand and eleven

BETWEEN WAYNE CORTS residing at 3 Victoria Court, Central Valley, New York 10917, party of the first part, and LIBERTYVILLE STONY POINT LLC, a New York limited liability company having an office at 181 Libertyville Road, New Paltz, New York 12561, party of the second part,

WITNESSETH that the party of the first part, in consideration of TEN AND 00/100 ($10.00) DOLLARS, lawful money of the United States, and other good and valuable consideration paid by the party of the second part, does hereby grant and release unto the party of the second part, the heirs or successors and assigns of the party of the second part forever,

ALL that certain plot, piece or parcel of land with the buildings and improvements thereon erected, situate, lying and being in the Town of Stony Point, County of Rockland, State of New York, more particularly described on SCHEDULE A attached hereto and made a part hereof.

BEING AND INTENDED to be the same premises described in a deed dated November 30, 1989, to Wayne Corts, recorded in the Rockland County Clerk's Office on November 30, 1989, in Liber 384 at page 1452, and by deed dated December 31, 1998, recorded in the Rockland County Clerk's Office on January 13, 1999, as Instrument #1999-2168.

TOGETHER with all right, title and interest, if any, of the party of the first part in and to any streets and roads abutting the above described premises to the center lines thereof,

TOGETHER with the appurtenances and all the estate and rights of the party of the first part in and to said premises,

TO HAVE AND TO HOLD the premises herein granted unto the party of the second part, the heirs or successors and assigns of the party of the second part forever.

AND the party of the first part covenants that the party of the first part has not done or suffered anything whereby the said premises have been encumbered in any way whatever, except as aforesaid.

AND the party of the first part, in compliance with Section 13 of the Lien Law, covenants that the party of the first part will receive the consideration for this conveyance and will hold the right to receive such consideration as a trust fund to be applied first for the purpose of paying the cost of the improvement and will apply the same first to the payment of the cost of the improvement before using any part of the total of the same for any other purpose.

UNOFFICIAL COPY

HILL-N-DALE ABSTRACTERS, INC.
20 SCOTCHTOWN AVENUE
P.O. BOX 547
GOSHEN, NEW YORK 10924
(845) 294-5110
FAX (845) 294-9581

other
3-4

Schedule A Description

Title Number **HN 43920**

(TAX LOTS 2, 3 & 7)

ALL that certain plot, piece or parcel of land, with the buildings and improvements thereon erected, situate, lying and being in the Town of Stony Point, County of Rockland and State of New York and being more particularly bounded and described as follows:

BEGINNING at a point in the easterly right of way of the Penn-Central Railroad-West Shore Division, said point being the northwesterly corner of those lands acquired by Smith in Liber 81 of Land Records, at page 250 and said point being distant northerly (as measured along the easterly right of way of the Penn-Central Railroad-West Shore Division and the westerly line of said lands of Smith as aforesaid) 392.89 feet from the northwesterly corner of lands now or formerly of Edna M. Schumacher (Tax Lot 23-201) and running thence;

1. North 16 degrees 37' 00" East along the westerly line of the premises and the easterly right of way of the Penn-Central Railroad-West Shore Division 1246.81 feet, thence

2. Still along the same, North 14 degrees 55' 40" East 477.90 feet to the northwesterly corner of the premises and the southwesterly corner of lands now or formerly of the Palisades Interstate Park Commission, thence

3. South 64 degrees 10' 09" East along the northerly line of the premises, along the southerly line of said lands now or formerly of the Palisades Interstate Park Commission 455.00 feet to a point under the waters of the Hudson River, thence

4. South 69 degrees 24' 26" East still along the northerly line of the premises and running under the waters of the Hudson River 540.00 feet to the northeasterly corner of the premises; thence

5. South 25 degrees 50' 33" West along the easterly line of the premises and still under the waters of the Hudson River 772.00 feet, thence

6. South 16 degrees 37' 00" West still along the easterly line of the premises and continuing under the waters of the Hudson River 277.32 feet to the northeasterly corner of those lands acquired by Stony Point Bay Corp., in Liber 1077 of Deeds at page 742, thence

7. North 73 degrees 23' 00" West along the northerly line of said lands now or

Continued On Next Page

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formerly of Stony Point Bay Corp. 643.97 feet to the northwesterly corner of said lands now or formerly of Stony Point Bay Corp., and said point being the northeasterly corner at the northerly terminus of a 50 foot wide right of way, thence

8. South 16 degrees 37' 00" West along the westerly line of said lands now or formerly of Stony Point Bay Corp. and the easterly line of the aforesaid 50 foot wide right of way 744.03 feet, thence

9. Still along the same, South 30 degrees 35' 50" West 231.82 feet to the southwesterly corner of said lands now or formerly of Stony Point Bay Corp. and a point in the northerly line of lands now or formerly of Edna M. Schumacher, thence

10. North 72 degrees 55' 00" West along the northerly line of said lands now or formerly of Edna M. Schumacher and crossing the aforesaid 50 foot wide right of way 50.00 feet to the southeasterly corner of lands now or formerly of Smith as acquired in Liber 81 of Land Records, at page 520, thence

11. Northeasterly along the easterly line of said lands of Smith as acquired in Liber 81 of Land Records, at page 520 and along the westerly line of the aforesaid 50 foot wide right of way the following courses and distances:

a. North 16 degrees 37' 00" East 5.72 feet, thence
b. North 30 degrees 35' 50" East 231.82 feet, thence
c. North 16 degrees 37' 00" East 163.03 feet to the northeasterly corner of said lands of Smith, thence

12. North 73 degrees 23' 00" West along the northerly line of said lands of Smith 156.00 feet to a point in the easterly right of way of the Penn-Central Railroad-West Shore Division, being the northwesterly corner of said lands of Smith and the point or place of beginning.

TOGETHER WITH a 50 foot wide right of way for ingress, egress and utility purposes running southerly from course no. 10 as created in Liber 827 of Deeds, at page 161 and as re-aligned in Liber 972 at page 87 and as at the same is shown on Filed Map Nos. 5414 and 5648. Same being a non-exclusive right of way to be used in common with other parties entitled to the use of same.

UNOFFICIAL COPY

(The word "party" shall be construed as if it read "parties" whenever the sense of this indenture so requires.)

IN WITNESS WHEREOF, the party of the first part has duly executed this deed the day and year first above written.

WAYNE CORTS

STATE OF NEW YORK)
)ss:
COUNTY OF ORANGE)

On the 30th day of ~~January~~ November in the year ~~2011~~ 2010, before me, the undersigned, a Notary Public in and for said State personally appeared WAYNE CORTS personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity and that by his/her/their signature(s) on the instrument the individual(s) or the person upon behalf of which the individual(s) acted, executed the instrument.

John M. Wood
Notary Public, State of New York
Orange County
My Commission Expires
November 23, 2013

UNOFFICIAL COPY

PLEASE TYPE OR PRESS FIRMLY WHEN WRITING ON FORM
INSTRUCTIONS: http://www.orps.state.ny.us or PHONE (518) 474-6450

FOR COUNTY USE ONLY
C1. SWIS Code 3928.00
C2. Date Deed Recorded 2 / 3 / 11 (Month Day Year)
C3. Book 2011 C4. Page 5181

REAL PROPERTY TRANSFER REPORT
STATE OF NEW YORK
STATE BOARD OF REAL PROPERTY SERVICES
RP - 5217
RP-5217 Rev 3/97

PROPERTY INFORMATION

1. Property Location: 36 (STREET NUMBER) Hudson Drive (STREET NAME)
Stony Point (CITY OR TOWN) (VILLAGE) (ZIP CODE)

2. Buyer Name: Libertyville Stony Point LLC (LAST NAME / COMPANY) (FIRST NAME)
(LAST NAME / COMPANY) (FIRST NAME)

3. Tax Billing Address: Indicate where future Tax Bills are to be sent if other than buyer address (at bottom of form) (LAST NAME / COMPANY) (FIRST NAME)
90 Crystal Run Road Suite 400 (STREET NUMBER AND STREET NAME) Middletown (CITY OR TOWN) N.Y. (STATE) 10941 (ZIP CODE)

4. Indicate the number of Assessment Roll parcels transferred on the deed: 1 # of Parcels OR ☐ Part of a Parcel
(Only if Part of a Parcel) Check as they apply:
4A. Planning Board with Subdivision Authority Exists ☐
4B. Subdivision Approval was Required for Transfer ☐
4C. Parcel Approved for Subdivision with Map Provided ☐

5. Deed Property Size: (FRONT FEET) X (DEPTH) OR % 35.05 (ACRES)

6. Seller Name: Corts (LAST NAME / COMPANY) Wayne (FIRST NAME)
(LAST NAME / COMPANY) (FIRST NAME)

7. Check the box below which most accurately describes the use of the property at the time of sale:

A ☐ One Family Residential
B ☐ 2 or 3 Family Residential
C ☐ Residential Vacant Land
D ☐ Non-Residential Vacant Land
E ☐ Agricultural
F ☒ Commercial
G ☐ Apartment
H ☐ Entertainment / Amusement
I ☐ Community Service
J ☒ Industrial
K ☐ Public Service
L ☐ Forest

Check the boxes below as they apply:
8. Ownership Type is Condominium ☐
9. New Construction on Vacant Land ☐
10A. Property Located within an Agricultural District ☐
10B. Buyer received a disclosure notice indicating that the property is in an Agricultural District ☐

SALE INFORMATION

11. Sale Contract Date: N/A (Month Day Year)

12. Date of Sale / Transfer: 1 / 1 / (Month Day Year)

13. Full Sale Price: 1,850,000.00
(Full Sale Price is the total amount paid for the property including personal property. This payment may be in the form of cash, other property or goods, or the assumption of mortgages or other obligations.) *Please round to the nearest whole dollar amount.*

14. Indicate the value of personal property included in the sale: -0-.00

15. Check one or more of these conditions as applicable to transfer:
A ☐ Sale Between Relatives or Former Relatives
B ☐ Sale Between Related Companies or Partners in Business
C ☐ One of the Buyers is also a Seller
D ☐ Buyer or Seller is Government Agency or Lending Institution
E ☐ Deed Type **not** Warranty or Bargain and Sale (Specify Below)
F ☐ Sale of Fractional or Less than Fee Interest (Specify Below)
G ☐ Significant Change in Property Between Taxable Status and Sale Dates
H ☐ Sale of Business is Included in Sale Price
I ☐ Other Unusual Factors Affecting Sale Price (Specify Below)
J ☐ None

ASSESSMENT INFORMATION - Data should reflect the latest Final Assessment Roll and Tax Bill

16. Year of Assessment Roll from which information taken: 10

17. Total Assessed Value (of all parcels in transfer): 259,500

18. Property Class: 570

19. School District Name: Haverstraw - Stony Point

20. Tax Map Identifier(s) / Roll Identifier(s) (If more than four, attach sheet with additional identifier(s))
15.4-6-2,3+4

CERTIFICATION

I certify that all of the items of information entered on this form are true and correct (to the best of my knowledge and belief) and I understand that the making of any willful false statement of material fact herein will subject me to the provisions of the penal law relative to the making and filing of false instruments.

BUYER
Libertyville Stony Point LLC
by: (BUYER SIGNATURE) (DATE)
181 (STREET NUMBER) Libertyville Road (STREET NAME (AFTER SALE))
New Paltz (CITY OR TOWN) NY (STATE) 12561 (ZIP CODE)

SELLER

BUYER'S ATTORNEY
Blustein (LAST NAME) Michael (FIRST NAME)
845 (AREA CODE) 291-0011 (TELEPHONE NUMBER)

NEW YORK STATE COPY

UNOFFICIAL COPY

Deed Exhibit 3

Paul Piperato, County Clerk
1 South Main St Ste 100
New City, NY 10956
(845) 638-5221

Rockland County Clerk Recording Cover Sheet

Received From :
HILL N DALE ABSTRACTERS INC
20 SCOTCHTOWN AVENUE
GOSHEN, NY 10924

Return To :
BLUSTEIN SHAPIRO RICH & BARONE ESQS
10 MATTHEWS ST
GOSHEN, NY 10924

First GRANTOR
STONY POINT BAY CORP

First GRANTEE
LIBERTYVILLE STONY POINT LLC

Index Type : Land Records
Instr Number : 2010-00044731
Book : **Page :**

Type of Instrument : Deed
Type of Transaction : Deed Other
Recording Fee : $331.00

Recording Pages : 8

Real Estate Transfer Tax

RETT # :	1587
Deed Amount :	$1,800,000.00
RETT Amount :	$7,200.00
Total Fees :	$7,531.00

Doc ID - 021528480008

The Property affected by this instrument is situated in Stony Point, in the County of Rockland, New York

State of New York
County of Rockland
I hereby certify that the within and foregoing was recorded in the Clerk's office for Rockland County, New York

On (Recorded Date) : 12/10/2010
At (Recorded Time) : 3:33:00 PM

Paul Piperato, County Clerk

UNOFFICIAL COPY

This sheet constitutes the Clerks endorsement required by Section 319 of Real Property Law of the State of New York

Entered By: MFW Printed On : 12/22/2010 At : 4:05:56PM

②

BARGAIN AND SALE DEED
WITH COVENANT AGAINST GRANTOR'S ACTS

HN 43920

THIS INDENTURE made the 30th day of November, two thousand ten

BETWEEN STONY POINT BAY CORP., a New York corporation having an address at 36 Hudson Drive, Stony Point, New York 10980, party of the first part, and LIBERTYVILLE STONY POINT LLC, a New York limited liability company having an office at 181 Libertyville Road, New Paltz, New York 12561, party of the second part,

WITNESSETH that the party of the first part, in consideration of ONE AND 00/100 ($1.00) DOLLARS, lawful money of the United States, and other good and valuable consideration paid by the party of the second part, does hereby grant and release unto the party of the second part, the heirs or successors and assigns of the party of the second part forever,

See Schedule A attached hereto and made a part hereof.

This deed is given in lieu of foreclosure of the Mortgage dated May 10, 2007, in the principal amount of up to $3,500,000.00 made by STONY POINT BAY CORP. and WAYNE CORTS to Union State Bank, recorded in the Rockland County Clerk's Office on May 24, 2007, as Instrument No. 2007-00026885, and corrected by Correction Mortgage made by Stony Point Bay Corp. and Wayne Corts to Union State Bank dated May 10, 2007, in the amount of $3,500,000.00, recorded on June 1, 2007, in the Rockland County Clerk's Office as Instrument #2007-00028291, which Mortgage was assigned by KeyBank National Association, as successor in interest to Union State Bank, to Libertyville Stony Point LLC pursuant to Assignment of Mortgage dated June 30, 2010, recorded in the Rockland County Clerk's Office on July 15, 2010, as Instrument #2010-25756.

IT BEING the intention of the parties that the aforementioned mortgage shall not merge into the fee interest conveyed hereby, but that such mortgage shall remain as a good and valid mortgage, separate and apart from any other interest of the party of the second part in the fee.

TOGETHER with all right, title and interest, if any, of the party of the first part in an to any streets and roads abutting the above described premises to the center lines thereof;

TOGETHER with the appurtenances and all the estate and rights of the party of the first part in an to said premises; TO HAVE AND TO HOLD the premises herein granted unto the party of the second part, the heirs or successors and assigns of the party of the second part forever.

AND the party of the first part covenants that the party of the first part has not done or suffered anything whereby the said premises have been encumbered in any way whatever, except as aforesaid.

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PARCEL I: (TAX LOT 4)

ALL that certain plot, piece or parcel of land with the buildings and improvements thereon erected, situate, lying and being in the Town of Stony Point, County of Rockland and State of New York and shown and designated as Lot No. 1 on a certain map entitled "Subdivision of Property for Vincent P. Altomonte, Town of Stony Point, Rockland County, New York", made by Atzl & Scatassa Associates, P.C., dated July 29, 1982, revised Aug. 18, 1982, Aug. 30, 1982 and last revised on Sept. 10, 1982 and filed in the Rockland County Clerk's Office on September 13, 1982 in Map Book 99 at page 21 as Map No. 5414 and being more particularly bounded and described as follows:

BEGINNING at the southwesterly corner of the premises and the southeasterly corner of the southerly terminus of a 50 foot wide right of way (as shown on the aforesaid filed map) and running thence:

1. Northerly along the easterly side of the aforesaid 50 foot wide right of way and along the westerly line of the premises the following two (2) courses and distances:
a. North 30 degrees 55' 50" East 231.82 feet; thence
b. North 16 degrees 37 minutes 00 seconds East 744.03 feet to the northwesterly corner of the premises and the northeasterly corner of the northerly terminus of the aforesaid 50 foot wide right of way, thence

2. South 73 degrees 23 minutes 00 seconds East along the northerly line of the premises, the easterly portion of said course being under the waters of the Hudson River, 643.97 feet to the northeasterly corner of the premises at a point under the waters of the Hudson River, thence

3. South 16 degrees 37 minutes 00 seconds West along the easterly line of the premises and along or near a breakwater the distance of 974.68 feet to the southeasterly corner of the premises, thence

4. North 72 degrees 55 minutes 00 seconds West along the southerly line of the premises, the easterly portion of said course still being under the waters of the Hudson River, 700.00 feet to the southwesterly corner of the premises, the southeasterly corner of the southerly terminus of the aforesaid 50 foot wide right of way and the point or place of beginning.

TOGETHER WITH a 50' by 60' easement for ingress, egress and utility purposes

Continued On Next Page

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located within the 50 foot wide right of way, said easement being cross-hatched and abutting the southwesterly portion of the premises along course 1a above, as shown on Filed Map No. 5414.

TOGETHER WITH a 10 foot wide sanitary sewer easement running from the westerly side of the 50' by 60' easement for ingress, egress & utility purposes, as immediately hereinabove set forth, running westerly to a 10 foot wide sanitary sewer easement, which runs north to south, all as shown on Filed Map No. 5414 and TOGETHER WITH the right to the uninterrupted flow of sewage through the improvements within said easement as to relieve the premises of said sewage and the right to enter upon said easement to maintain, repair and renew the pipe or pipes within same.

TOGETHER WITH a 10' by 20' sanitary sewer easement running from the westerly line of the premises (course 1b as described hereinabove) westerly to a sanitary manhole and encompassing same, as shown on Filed Map No. 5414, TOGETHER WITH the right to the uninterrupted flow of sewage through the improvements within said easement so as to relieve the premises of said sewage and the right to enter upon said easement to maintain, repair and renew the pipe or pipes within same.

SUBJECT TO a 10 foot wide A.T.&T. easement affecting the southerly 10 feet of the premises as set forth on Filed Map No. 5414.

SUBJECT TO a 20 foot wide A.T.&T. easement affecting the central portion of the premises as set forth on Filed Map No. 5414.

TOGETHER WITH an easement over a 50 foot wide right of way for ingress, egress and utility purposes running from the northerly side of Tomkins Avenue Extension northerly to the southerly line of Filed Map No. 5414 and thence entering the premises set forth on said filed map and running along the westerly line of the subject premises (course 1a and 1b) and being more particularly bounded and described as follows:

BEGINNING at the point of intersection of the northerly side of Tomkins Avenue Extension with the southwesterly corner of lands now or formerly of Mary T. O'Connell and the easterly right of way line of the Penn-Central Railroad-West Shore Division and running thence;

1. Northerly along the westerly line of said 50 foot wide right of way herein being described the following six (6) courses and distances:

Continued On Next Page

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a. North 38 degrees 38 minutes 30 seconds East 67.25 feet, thence
b. North 37 degrees 29 minutes 00 seconds East 134.50 feet, thence
c. North 24 degrees 20 minutes 26 seconds East 187.50 feet, thence
d. North 16 degrees 37 minutes 00 seconds East 205.87 feet, thence
e. North 30 degrees 35 minutes 50 seconds East 231.82 feet, thence
f. North 16 degrees 37 minutes 00 seconds East 737.90 feet to the northwesterly corner of the 50 foot wide right of way, thence;

2. South 73 degrees 23 minutes 00 seconds East along the northerly terminus of the 50 foot wide right of way 50.00 feet to the northeasterly corner of same and the northwesterly corner of Lot No. 1 on Filed Map No. 5414, the subject premises hereinabove described, thence;

3. Southerly along the easterly line of the 50 foot wide right of way and along the westerly line of the subject premises for the first and second courses hereinabove to be described the following five (5) courses and distances:
a. South 16 degrees 37 minutes 00 seconds West 744.03 feet, thence
b. South 30 degrees 35 minutes 50 seconds West 231.82 feet, thence
c. South 16 degrees 37 minutes 00 seconds West 203.11 feet, thence;
d. South 24 degrees 20 minutes 26 seconds West 196.63 feet, thence
e. South 37 degrees 29 minutes 00 seconds West 149.59 feet to a point on the northerly side of Tomkins Avenue Extension and the southeasterly corner of the 50 foot wide right of way, thence

4. South 79 degrees 03 minutes 15 seconds West along the northerly side of Tomkins Avenue Extension and the southerly terminus of the 50 foot wide right of way hereinabove described 77.40 feet to the point or place of beginning.

The above described easement being non-exclusive and being and intended to described the right of way as set forth in Liber 827 of Deeds at page 161 and as the same was re-aligned in Liber 972 of Deeds at page 87.

TOGETHER WITH easements as shown on map filed in the Rockland County Clerk's Office on September 13, 1982 in Book 99, page 21 as Map No. 5414.

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AND the party of the first part, in compliance with Section 13 of the Lien Law, covenants that the party of the first part will receive the consideration for this conveyance and will hold the right to receive such consideration as a trust fund to be applied first for the purpose of paying the cost of the improvement and will apply the same first to the payment of the cost of the improvement before using any part of the total of the same for any other purpose.

(The word "party" shall be construed as if it read "parties" whenever the sense of this indenture so requires.)

IN WITNESS WHEREOF, the party of the first part has duly executed this deed the day and year first above written.

STONY POINT BAY CORP.

By: _____
WAYNE CORTS

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STATE OF NEW YORK)
)ss.:
COUNTY OF ORANGE)

On the 30th day of November, 2010, before me, a Notary Public in and for said State, personally appeared WAYNE CORTS, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

Notary Public

John M. Wood
Notary Public, State of New York
Orange County
My Commission Expires
November 23, 2013

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R&R

BLUSTEIN, SHAPIRO, RICH & BARONE, ESQS
10 MATTHEWS ST
GOSHEN, NY 10924

ATTN: MICHAEL BLUSTEIN

PLEASE TYPE OR PRESS FIRMLY WHEN WRITING ON FORM
INSTRUCTIONS: http:// www.orps.state.ny.us or PHONE (518) 473-7222

FOR COUNTY USE ONLY

C1. SWIS Code: 39 28 00

C2. Date Deed Recorded: 12 10 / 10 (Month Day Year)

C3. Book: 2 0 1 0 C4. Page: 4 4 7 3

REAL PROPERTY TRANSFER REPORT

STATE OF NEW YORK
STATE BOARD OF REAL PROPERTY SERVICES

RP - 5217

RP-5217 Rev 3/97

PROPERTY INFORMATION

1. Property Location: 29 (STREET NUMBER) Hudson Drive (STREET NAME)
Stony Point (CITY OR TOWN) (VILLAGE) 10980 (ZIP CODE)

2. Buyer Name: Libertyville Stony Point, LLC (LAST NAME / COMPANY) (FIRST NAME)
(LAST NAME / COMPANY) (FIRST NAME)

3. Tax Billing Address: Indicate where future Tax Bills are to be sent if other than buyer address (at bottom of form)
(LAST NAME / COMPANY) (FIRST NAME)
(STREET NUMBER AND STREET NAME) (CITY OR TOWN) (STATE) (ZIP CODE)

4. Indicate the number of Assessment Roll parcels transferred on the deed: 1 # of Parcels OR ☐ Part of a Parcel

(Only if Part of a Parcel) Check as they apply:
4A. Planning Board with Subdivision Authority Exists ☐
4B. Subdivision Approval was Required for Transfer ☐
4C. Parcel Approved for Subdivision with Map Provided ☐

5. Deed Property Size: (FRONT FEET) X (DEPTH) OR 1 4 . 5 2 (ACRES)

6. Seller Name: Stony Point Bay Corp. (LAST NAME / COMPANY) (FIRST NAME)
(LAST NAME / COMPANY) (FIRST NAME)

7. Check the box below which most accurately describes the use of the property at the time of sale:

A ☐	One Family Residential	E ☐	Agricultural	I ☐	Community Service
B ☐	2 or 3 Family Residential	F ☒	Commercial	J ☒	Industrial
C ☐	Residential Vacant Land	G ☐	Apartment	K ☐	Public Service
D ☐	Non-Residential Vacant Land	H ☐	Entertainment / Amusement	L ☒	Forest

Check the boxes below as they apply:
8. Ownership Type is Condominium ☐
9. New Construction on Vacant Land ☐
10A. Property Located within an Agricultural District ☐
10B. Buyer received a disclosure notice indicating that the property is in an Agricultural District ☐

SALE INFORMATION

11. Sale Contract Date: / / (Month Day Year)

12. Date of Sale / Transfer: 11 / 30 / 10 (Month Day Year)

13. Full Sale Price: 1,800,000.00

(Full Sale Price is the total amount paid for the property including personal property. This payment may be in the form of cash, other property or goods, or the assumption of mortgages or other obligations.) *Please round to the nearest whole dollar amount.*

14. Indicate the value of personal property included in the sale: 0.00

15. Check one or more of these conditions as applicable to transfer:
A ☐ Sale Between Relatives or Former Relatives
B ☐ Sale Between Related Companies or Partners in Business
C ☐ One of the Buyers is also a Seller
D ☐ Buyer or Seller is Government Agency or Lending Institution
E ☐ Deed Type **not** Warranty or Bargain and Sale (Specify Below)
F ☐ Sale of Fractional or Less than Fee Interest (Specify Below)
G ☐ Significant Change in Property Between Taxable Status and Sale Dates
H ☐ Sale of Business is Included in Sale Price
I ☐ Other Unusual Factors Affecting Sale Price (Specify Below)
J ☒ None

ASSESSMENT INFORMATION - Data should reflect the latest Final Assessment Roll and Tax Bill

16. Year of Assessment Roll from which information taken: 10

17. Total Assessed Value (of all parcels in transfer): 205,000

18. Property Class: 570 -

19. School District Name: Haverstraw-Stony Point

20. Tax Map Identifier(s) / Roll Identifier(s) (If more than four, attach sheet with additional identifier(s))

Section 15.4 Block 6
Lot 4

CERTIFICATION

I certify that all of the items of information entered on this form are true and correct (to the best of my knowledge and belief) and I understand that the making of any willful false statement of material fact herein will subject me to the provisions of the penal law relative to the making and filing of false instruments.

BUYER

Libertyville Stony Point LLC
(BUYER SIGNATURE) (DATE) 11/30/10
90 Crystal Run Road Suite 400 (STREET NUMBER) (STREET NAME (AFTER SALE))
Middletown (CITY OR TOWN) NY (STATE) 10941 (ZIP CODE)

SELLER

Stony Point Bay Corp.
By: (SELLER SIGNATURE) 11/30/10

BUYER'S ATTORNEY

Blustein (LAST NAME) Michael (FIRST NAME)
845 (AREA CODE) 291 0011 (TELEPHONE NUMBER)

NEW YORK STATE COPY

UNOFFICIAL COPY

22, 29, 31 Hudson Dr

22, 29, 31 Hudson Dr
Stony Point, NY 10980

Inquiry Number: 4686673.6
July 28, 2016

The EDR Property Tax Map Report

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

EDR Property Tax Map Report

Environmental Data Resources, Inc.'s EDR Property Tax Map Report is designed to assist environmental professionals in evaluating potential environmental conditions on a target property by understanding property boundaries and other characteristics. The report includes a search of available property tax maps, which include information on boundaries for the target property and neighboring properties, addresses, parcel identification numbers, as well as other data typically used in property location and identification.

NO COVERAGE

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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22, 29, 31 Hudson Dr

22, 29, 31 Hudson Dr
Stony Point, NY 10980

Inquiry Number: 4686673.5
July 29, 2016

The EDR-City Directory Image Report

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

Executive Summary

Findings

City Directory Images

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

Year	*Target Street*	*Cross Street*	*Source*
2013	☑	☐	Cole Information Services
2008	☑	☐	Cole Information Services
2003	☑	☐	Cole Information Services
1999	☑	☐	Cole Information Services
1995	☑	☐	Cole Information Services
1992	☑	☐	Cole Information Services
1989	☑	☐	City's City Directory
1973	☐	☐	City's City Directory

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FINDINGS

TARGET PROPERTY STREET

22, 29, 31 Hudson Dr
Stony Point, NY 10980

Year	*CD Image*	*Source*	
HUDSON DR			
2013	pg A1	Cole Information Services	
2008	pg A2	Cole Information Services	
2003	pg A3	Cole Information Services	
1999	pg A4	Cole Information Services	
1995	pg A5	Cole Information Services	
1992	pg A6	Cole Information Services	
1989	pg A7	City's City Directory	
1973	-	City's City Directory	Street not listed in Source

FINDINGS

CROSS STREETS

No Cross Streets Identified

City Directory Images

Target Street	Cross Street	Source
✓	-	Cole Information Services

HUDSON DR 2013

1	STONY POINT BAY MARINA & YACHT CLUB
2	W CURY
9	PATSYS BAY MARINA INC
29	OUT OF THE BLUE BAR & GRILL
	RIVER BARGE & GRILL THE

Target Street	Cross Street	Source
✓	-	Cole Information Services

HUDSON DR 2008

2	W CURY
9	ALL AROUND MOVING
	PATSYS BAY MARINA INC
10	MIKE KENNEDY
22	HUDSON CLUB
	THE STUART ROBERTS CO
29	STONY POINT BAY MARINA
36	AIRGEN INC
	SEAWEED YACHT CLUB INC
	WILLOW COVE MARINA INC

Target Street	Cross Street	Source
✓	-	Cole Information Services

HUDSON DR 2003

1	RESIDENTIAL AUTOMOTICES INC
2	W CURY
9	PATSYS BAY MARINA INC
10	PHILIP CARLSON
22	FARMERS MARKET OF STONY POINT
	MONISMART SYSTEMS LLC
29	OCCUPANT UNKNOWN
	STONY POINT BAY MARINE CORP
36	ANTON KLECAR
	CWS 32 INC
	SEAWEED YACHT CLUB
	WILLOW COVE MARINA

Target Street	Cross Street	Source
✓	-	Cole Information Services

HUDSON DR 1999

2	BARRY FIXLER
	GEORGE JOHNSON
	W CURY
3	OCCUPANT UNKNOWN
8	OCCUPANT UNKNOWN
9	MOBILE MUSIC MAN
	WILLOW COVE MARINA INCORPORATED
22	WALLYS ICE CREAM
29	DEAN CIOPPA
	ROBERT MILLER
33	F MURPHY
	WILLIAM COUGHLIN
36	BOATWORKS
	VENOM POWER BOATS STONY POINT MARINA

Target Street	Cross Street	Source
✓	-	Cole Information Services

HUDSON DR 1995

0	MARINE GLASSWORKS INC
	RESIDENTIAL TIRE & AUTO SVC
	SEAWEED YACHT CLUB INC
	STONY POINT BAY CORP
9	EAST COAST OPERATION SVCS INC
	WILLOW COVE MARINA INC
22	SMITH F WILSON
29	SUNRISE CANVAS
36	SEAFARER CANVAS
38	STONY POINT MARINA & YACHT CLUB

Target Street	Cross Street	Source
✓	-	Cole Information Services

HUDSON DR 1992

0	BRADLEY MOBIL MARINE INC
	KACENS, GIRTS
	MARINE INNOVATIONS INC
	MURPHY, F
	NEXT, W
	RAKOWSKI, CHESTER
	RESIDENTIAL TIRE & AUTO SVC
	SEAWEED YACHT CLUB INC
	STONY POINT BAY CORP
	SURKS, DAVID
2	ALBER, ROBERT
	JOHNSON, GEORGE
	OLIVER, RICHARD A, JR
	WILLOW COVE MARINA INC
3	JENNINGS, NICOLETTE
22	F WILSON SMITH INC, FOOD DISTRIBTR
	SMITH, F WILSON, FOOD DSTRBTR
	WILSON, SMITH, FOOD DISTRIBUTOR
33	SUNRISE CANVAS
36	CARPENTERS UNION 964 APPRENTICESHIP TRAINING FUND B

Target Street	Cross Street	Source
✓	-	City's City Directory

HUDSON DR 1989

0-BUS 3-RES 0-NEW

HUDSON DR (Stony Point NY)
10980

From Tompkins Ave n, 4 e of
N Liberty Dr (US Hwy 9 W)

2	Corts M L	429-8215	86
2	Masterson Walt	429-3717	89
2	Niles Peter W	+429-7679	90
2	★Willow Cove Marina	786-5270	83
4	★Stony Point Bay Corp	+786-3700	90
22	★Smith F Wilson food distribtr	429-4357	77
36	★Carpenters Un 964 Apprenticeship Trng Fund B	786-5103	77
--	Fliegel Henry	786-3269	89
--	Horn Joseph	+429-2743	90
--	Kacens Girts	429-1923	88
--	Murphy F	786-3624	84
--	Next W	+429-7311	90
--	★Residential Tire & Auto Service	429-5744	87
--	SEAWEED YACHT CLUB		
	Mutinsky James	947-3015	85
	★Seaweed Yacht Club	786-8731	74
--	★Stony Point Marina & Yacht Club Inc	429-4242	89
--	Surks David	429-9664	87

7-BUS 10-RES 4-NEW

HUDSON TER (Piermont NY)
68

22, 29, 31 Hudson Dr
22, 29, 31 Hudson Dr
Stony Point, NY 10980

Inquiry Number: 4686673.2s
July 28, 2016

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION	PAGE
Executive Summary	ES1
Overview Map	2
Detail Map	3
Map Findings Summary	4
Map Findings	8
Orphan Summary	83
Government Records Searched/Data Currency Tracking	GR-1

GEOCHECK ADDENDUM

Physical Setting Source Addendum	A-1
Physical Setting Source Summary	A-2
Physical Setting SSURGO Soil Map	A-5
Physical Setting Source Map	A-13
Physical Setting Source Map Findings	A-15
Physical Setting Source Records Searched	PSGR-1

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with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

22, 29, 31 HUDSON DR
STONY POINT, NY 10980

COORDINATES

Latitude (North):	41.2348770 - 41˚ 14' 5.55''
Longitude (West):	73.9751800 - 73˚ 58' 30.64''
Universal Tranverse Mercator:	Zone 18
UTM X (Meters):	585885.2
UTM Y (Meters):	4565125.0
Elevation:	0 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5939743 HAVERSTRAW, NY
Version Date:	2013
North Map:	5939759 PEEKSKILL, NY
Version Date:	2013
Southwest Map:	5940195 THIELLS, NY
Version Date:	2013
Northwest Map:	5940185 POPOLOPEN LAKE, NY
Version Date:	2013

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20150522
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
22, 29, 31 HUDSON DR
STONY POINT, NY 10980

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	WAREHOUSE	22 HUDSON DR	LTANKS		TP
A2	F. WILSON SMITH INC.	22 HUDSON DRIVE	UST		TP
A3	STONY POINT BAY CORP	29 HUDSON DR	FINDS, ECHO		TP
Reg	HUDSON RIVER PCBS	NO STREET APPLICABLE	NPL, SEMS, RCRA-SQG, US ENG CONTROLS, US INST...	Same	1 ft.
B4	SEWER	BEACH ROAD	NY Spills	Higher	1 ft.
C5	STUART ROBERTS CO	36 HUDSON DR	RCRA NonGen / NLR, FINDS, MANIFEST, ECHO	Higher	1 ft.
C6	SEWER LINE ON STREET	36 HUDSON DR	NY Spills	Higher	1 ft.
C7	STONY POINT MARINA	36 HUDSON DRIVE	UST, AST	Higher	1 ft.
C8	STONY POINT FIRE (TO	44 HUDSON DRIVE	SEMS-ARCHIVE	Higher	1 ft.
B9	BEACH RD MANHOLES	BEACH RD	NY Spills	Higher	1 ft.
C10	TORCORT MARINA CORP	36 HUDSON DR	FINDS, ECHO	Higher	1 ft.
11	STONY POINT MARINA	26 HUDSON DRIVE	NY Spills	Higher	1 ft.
C12	TOTAL PAPERS	HUDSON DRIVE	NY Spills	Higher	1 ft.
C13	LIGHTGUIDE COMMUNICA	HUDSON R CROSSING	FINDS, ECHO	Higher	1 ft.
14	STONY POINT MARINA	15 HUDSON DRIVE	NY Spills	Higher	123, 0.023, SW
D15		8 HUDSON DR	EDR Hist Auto	Higher	425, 0.080, SW
D16	RESIDENTIAL AUTOMOTI	8 HUDSON DRIVE	AST	Higher	425, 0.080, SW
D17	GULF 9W TOMKINS COVE	9W TOMKINS COVE	NY Spills	Higher	572, 0.108, SW
D18	WILLOW COVE	2 HUDSON DRIVE	NY Spills	Higher	578, 0.109, SSW
D19		1 HUDSON DR	EDR Hist Auto	Higher	592, 0.112, SSW
20	STATE OWNED HISTORIC	40 BATTLEFIELD RD	LTANKS, NY Spills	Higher	601, 0.114, NNW
21	STONY POINT BATTLEFI	44 BATTELFIELD RD	NY Spills	Higher	627, 0.119, North
22	TIM KREIDER	1 LINCOLN OVAL	UST	Higher	708, 0.134, NW
23	BELLE HARBOR LANDING	80 BEACH ROAD	UST	Higher	880, 0.167, SSW
24	STONY POINT BATTLEFI	46 BATTLEFIELD ROAD	LTANKS	Higher	923, 0.175, NNE
25	T/STONY POINT GARAGE	HICKSEN ROAD	LTANKS	Higher	2121, 0.402, WSW
26	STONY POINT LANDFILL	NORTH OF BATTLEFIELD	SHWS, DEL SHWS	Higher	2161, 0.409, NNW
27	MANGLASS	139 N LIB LN	LTANKS	Higher	2211, 0.419, WNW
28	STONY POINT FILTRATI	MAIN STREET	LTANKS, CBS, CBS AST	Higher	2400, 0.455, South
29	CARRIAGE HOUSE	RT. 9W	LTANKS	Higher	2458, 0.466, WNW

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 8 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
WAREHOUSE 22 HUDSON DR STONY POINT, NY	LTANKS Spill Number/Closed Date: 9604062 / 1997-05-13 Site ID: 259513 Program Number: 9604062	N/A
F. WILSON SMITH INC. 22 HUDSON DRIVE STONY POINT, NY 10980	UST Close Date: 5/1/1996 Facility ID: 3-990527	N/A
STONY POINT BAY CORP 29 HUDSON DR STONY POINT, NY 10980	FINDS Registry ID:: 110019146084 ECHO	N/A

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

Proposed NPL..... Proposed National Priority List Sites
NPL LIENS..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL..... National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY..... Federal Facility Site Information listing

Federal RCRA CORRACTS facilities list

CORRACTS..... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

EXECUTIVE SUMMARY

Federal RCRA generators list

RCRA-LQG..... RCRA - Large Quantity Generators
RCRA-CESQG..... RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

LUCIS..... Land Use Control Information System

Federal ERNS list

ERNS..... Emergency Response Notification System

State- and tribal - equivalent CERCLIS

VAPOR REOPENED..... Vapor Intrusion Legacy Site List

State and tribal landfill and/or solid waste disposal site lists

SWF/LF..... Facility Register

State and tribal leaking storage tank lists

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land
HIST LTANKS..... Listing of Leaking Storage Tanks

State and tribal registered storage tank lists

FEMA UST..... Underground Storage Tank Listing
CBS UST..... Chemical Bulk Storage Database
MOSF UST..... Major Oil Storage Facilities Database
MOSF..... Major Oil Storage Facility Site Listing
CBS..... Chemical Bulk Storage Site Listing
CBS AST..... Chemical Bulk Storage Database
MOSF AST..... Major Oil Storage Facilities Database
INDIAN UST..... Underground Storage Tanks on Indian Land
TANKS..... Storage Tank Faciliy Listing

State and tribal institutional control / engineering control registries

RES DECL..... Restrictive Declarations Listing
ENG CONTROLS..... Registry of Engineering Controls
INST CONTROL..... Registry of Institutional Controls

State and tribal voluntary cleanup sites

VCP..... Voluntary Cleanup Agreements
INDIAN VCP..... Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS..... Brownfields Site List
ERP..... Environmental Restoration Program Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

EXECUTIVE SUMMARY

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY	Registered Recycling Facility List
SWTIRE	Registered Waste Tire Storage & Facility List
INDIAN ODI	Report on the Status of Open Dumps on Indian Lands
DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Site Locations
ODI	Open Dump Inventory

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL	Delisted National Clandestine Laboratory Register
US CDL	National Clandestine Laboratory Register

Local Lists of Registered Storage Tanks

HIST UST	Historical Petroleum Bulk Storage Database
HIST AST	Historical Petroleum Bulk Storage Database

Local Land Records

LIENS	Spill Liens Information
LIENS 2	CERCLA Lien Information

Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
NY Hist Spills	SPILLS Database
SPILLS 90	SPILLS 90 data from FirstSearch
SPILLS 80	SPILLS 80 data from FirstSearch

Other Ascertainable Records

FUDS	Formerly Used Defense Sites
DOD	Department of Defense Sites
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR	Financial Assurance Information
EPA WATCH LIST	EPA WATCH LIST
2020 COR ACTION	2020 Corrective Action Program List
TSCA	Toxic Substances Control Act
TRIS	Toxic Chemical Release Inventory System
SSTS	Section 7 Tracking Systems
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
PADS	PCB Activity Database System
ICIS	Integrated Compliance Information System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS	Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
RADINFO	Radiation Information Database
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS	Incident and Accident Data

EXECUTIVE SUMMARY

INDIAN RESERV..... Indian Reservations
FUSRAP..... Formerly Utilized Sites Remedial Action Program
UMTRA..... Uranium Mill Tailings Sites
LEAD SMELTERS..... Lead Smelter Sites
US AIRS..... Aerometric Information Retrieval System Facility Subsystem
US MINES..... Mines Master Index File
DOCKET HWC..... Hazardous Waste Compliance Docket Listing
UXO..... Unexploded Ordnance Sites
AIRS..... Air Emissions Data
COAL ASH..... Coal Ash Disposal Site Listing
DRYCLEANERS..... Registered Drycleaners
E DESIGNATION..... E DESIGNATION SITE LISTING
Financial Assurance..... Financial Assurance Information Listing
HSWDS..... Hazardous Substance Waste Disposal Site Inventory
SPDES..... State Pollutant Discharge Elimination System
UIC..... Underground Injection Control Wells
FUELS PROGRAM..... EPA Fuels Program Registered Listing

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP..... EDR Proprietary Manufactured Gas Plants
EDR Hist Cleaner..... EDR Exclusive Historic Dry Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS..... Recovered Government Archive State Hazardous Waste Facilities List
RGA LF..... Recovered Government Archive Solid Waste Facilities List

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: Also known as Superfund, the National Priority List database is a subset of CERCLIS and

identifies over 1,200 sites for priority cleanup under the Superfund program. The source of this database is the U.S. EPA.

A review of the NPL list, as provided by EDR, and dated 03/07/2016 has revealed that there is 1 NPL site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
HUDSON RIVER PCBS	***NO STREET APPLICABLE***	***0 - 1/8 (0.000 mi.)***	***0***	***11***

Federal CERCLIS list

SEMS: SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

A review of the SEMS list, as provided by EDR, and dated 03/07/2016 has revealed that there is 1 SEMS site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
HUDSON RIVER PCBS	***NO STREET APPLICABLE***	***0 - 1/8 (0.000 mi.)***	***0***	***11***

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

A review of the SEMS-ARCHIVE list, as provided by EDR, and dated 03/07/2016 has revealed that there is 1 SEMS-ARCHIVE site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
STONY POINT FIRE (TO	44 HUDSON DRIVE	0 - 1/8 (0.000 mi.)	C8	54

EXECUTIVE SUMMARY

Federal RCRA generators list

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 12/09/2015 has revealed that there is 1 RCRA-SQG site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
HUDSON RIVER PCBS	***NO STREET APPLICABLE***	***0 - 1/8 (0.000 mi.)***	***0***	***11***

Federal institutional controls / engineering controls registries

US ENG CONTROLS: A listing of sites with engineering controls in place.

A review of the US ENG CONTROLS list, as provided by EDR, and dated 09/10/2015 has revealed that there is 1 US ENG CONTROLS site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
HUDSON RIVER PCBS	***NO STREET APPLICABLE***	***0 - 1/8 (0.000 mi.)***	***0***	***11***

US INST CONTROL: A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

A review of the US INST CONTROL list, as provided by EDR, and dated 09/10/2015 has revealed that there is 1 US INST CONTROL site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
HUDSON RIVER PCBS	***NO STREET APPLICABLE***	***0 - 1/8 (0.000 mi.)***	***0***	***11***

State- and tribal - equivalent CERCLIS

SHWS: The State Hazardous Waste Sites records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. The data come from the Department of Environmental Conservation's Inactive Hazardous waste Disposal Sites in New York State.

A review of the SHWS list, as provided by EDR, and dated 05/17/2016 has revealed that there is 1 SHWS site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
STONY POINT LANDFILL	***NORTH OF BATTLEFIELD***	***NNW 1/4 - 1/2 (0.409 mi.)***	***26***	***74***

EXECUTIVE SUMMARY

Site Code: 56030

State and tribal leaking storage tank lists

LTANKS: Leaking Storage Tank Incident Reports. These records contain an inventory of reported leaking storage tank incidents reported from 4/1/86 through the most recent update. They can be either leaking underground storage tanks or leaking aboveground storage tanks. The causes of the incidents are tank test failures, tank failures or tank overfills

A review of the LTANKS list, as provided by EDR, and dated 05/17/2016 has revealed that there are 6 LTANKS sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
STATE OWNED HISTORIC Spill Number/Closed Date: 0913800 / 2010-04-08 Site ID: 426768 Program Number: 0913800	***40 BATTLEFIELD RD***	***NNW 0 - 1/8 (0.114 mi.)***	***20***	***65***
STONY POINT BATTLEFI Spill Number/Closed Date: 0412830 / 2005-11-28 Site ID: 338433 Program Number: 0412830	46 BATTLEFIELD ROAD	NNE 1/8 - 1/4 (0.175 mi.)	24	72
T/STONY POINT GARAGE Spill Number/Closed Date: 8809444 / 1989-03-14 Site ID: 137971 Program Number: 8809444	HICKSEN ROAD	WSW 1/4 - 1/2 (0.402 mi.)	25	73
MANGLASS Spill Number/Closed Date: 8400832 / 1987-03-11 Site ID: 283615 Program Number: 8400832	139 N LIB LN	WNW 1/4 - 1/2 (0.419 mi.)	27	77
STONY POINT FILTRATI Spill Number/Closed Date: 9010344 / 1998-07-16 Site ID: 85771 Program Number: 9010344	***MAIN STREET***	***S 1/4 - 1/2 (0.455 mi.)***	***28***	***78***
CARRIAGE HOUSE Spill Number/Closed Date: 9213691 / 1997-01-13 Site ID: 304502 Program Number: 9213691	RT. 9W	WNW 1/4 - 1/2 (0.466 mi.)	29	81

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Environmental Conservation's Petroleum Bulk Storage (PBS) Database

A review of the UST list, as provided by EDR, and dated 03/29/2016 has revealed that there are 3 UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
STONY POINT MARINA	***36 HUDSON DRIVE***	***0 - 1/8 (0.000 mi.)***	***C7***	***45***

Close Date: 1/1/1997 Facility ID: 3-990698				
TIM KREIDER Facility ID: 3-990922	1 LINCOLN OVAL	NW 1/8 - 1/4 (0.134 mi.)	22	69
BELLE HARBOR LANDING Close Date: 1/1/2006 Facility ID: 3-990952	80 BEACH ROAD	SSW 1/8 - 1/4 (0.167 mi.)	23	70

AST: The Aboveground Storage Tank database contains registered ASTs. The data come from the Department of Environmental Conservation's Petroleum Bulk Storage (PBS) Database.

A review of the AST list, as provided by EDR, and dated 03/29/2016 has revealed that there are 2 AST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
STONY POINT MARINA Facility ID: 3-990698 Facility Id: 3-990698	***36 HUDSON DRIVE***	***0 - 1/8 (0.000 mi.)***	***C7***	***45***
RESIDENTIAL AUTOMOTI Facility ID: 3-990845 Facility Id: 3-990845	8 HUDSON DRIVE	SW 0 - 1/8 (0.080 mi.)	D16	60

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Hazardous waste / Contaminated Sites

DEL SHWS: A database listing of sites delisted from the Registry of Inactive Hazardous Waste Disposal Sites.

A review of the DEL SHWS list, as provided by EDR, and dated 05/17/2016 has revealed that there is 1 DEL SHWS site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
STONY POINT LANDFILL Site Code Id: 344008	***NORTH OF BATTLEFIELD***	***NNW 1/4 - 1/2 (0.409 mi.)***	***26***	***74***

Records of Emergency Release Reports

NY Spills: Data collected on spills reported to NYSDEC. is required by one or more of the following: Article 12 of the Navigation Law, 6 NYCRR Section 613.8 (from PBS regs), or 6 NYCRR Section 595.2 (from CBS regs). It includes spills active as of April 1, 1986, as well as spills occurring since this date.

A review of the NY Spills list, as provided by EDR, and dated 05/17/2016 has revealed that there are 11 NY Spills sites within approximately 0.125 miles of the target property.

EXECUTIVE SUMMARY

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
HUDSON RIVER PCBS	***NO STREET APPLICABLE***	***0 - 1/8 (0.000 mi.)***	***0***	***11***
Spill Number/Closed Date: 0308107 / 2003-10-31				
spillno: 0308107				
Site ID: 237813				
SEWER	BEACH ROAD	0 - 1/8 (0.000 mi.)	B4	38
Spill Number/Closed Date: 1106036 / 2011-09-06				
spillno: 1106036				
Site ID: 453712				
SEWER LINE ON STREET	36 HUDSON DR	0 - 1/8 (0.000 mi.)	C6	42
Spill Number/Closed Date: 1205209 / 2012-10-18				
Spill Number/Closed Date: 0911599 / 2010-01-29				
Spill Number/Closed Date: 9404391 / 1997-11-25				
spillno: 0911599				
spillno: 1205209				
spillno: 9404391				
Site ID: 424422				
Site ID: 468132				
Site ID: 204140				
BEACH RD MANHOLES	BEACH RD	0 - 1/8 (0.000 mi.)	B9	55
Spill Number/Closed Date: 1107141 / 2011-09-12				
spillno: 1107141				
Site ID: 454829				
STONY POINT MARINA	26 HUDSON DRIVE	0 - 1/8 (0.000 mi.)	11	56
Spill Number/Closed Date: 1200496 / 2012-10-22				
spillno: 1200496				
Site ID: 463127				
TOTAL PAPERS	HUDSON DRIVE	0 - 1/8 (0.000 mi.)	C12	57
Spill Number/Closed Date: 8606396 / 1987-01-17				
spillno: 8606396				
Site ID: 149349				
STONY POINT MARINA	15 HUDSON DRIVE	SW 0 - 1/8 (0.023 mi.)	14	59
Spill Number/Closed Date: 1106074 / 2011-10-05				
spillno: 1106074				
Site ID: 453750				
GULF 9W TOMKINS COVE	9W TOMKINS COVE	SW 0 - 1/8 (0.108 mi.)	D17	62
Spill Number/Closed Date: 8900804 / 2004-12-26				
spillno: 8900804				
Site ID: 247422				
WILLOW COVE	2 HUDSON DRIVE	SSW 0 - 1/8 (0.109 mi.)	D18	63
Spill Number/Closed Date: 8709209 / 1988-01-26				
Spill Number/Closed Date: 8607989 / 1987-03-31				
spillno: 8607989				
spillno: 8709209				
Site ID: 171752				
Site ID: 275815				
STATE OWNED HISTORIC	***40 BATTLEFIELD RD***	***NNW 0 - 1/8 (0.114 mi.)***	***20***	***65***
Spill Number/Closed Date: 0912136 / 2010-10-07				
spillno: 0912136				
Site ID: 425008				
STONY POINT BATTLEFI	44 BATTELFIELD RD	N 0 - 1/8 (0.119 mi.)	21	68

EXECUTIVE SUMMARY

Spill Number/Closed Date: 0210567 / 2003-01-21
spillno: 0210567
Site ID: 240593

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 12/09/2015 has revealed that there is 1 RCRA NonGen / NLR site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
STUART ROBERTS CO	***36 HUDSON DR***	***0 - 1/8 (0.000 mi.)***	***C5***	***39***

ROD: Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid the cleanup.

A review of the ROD list, as provided by EDR, and dated 11/25/2013 has revealed that there is 1 ROD site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
HUDSON RIVER PCBS	***NO STREET APPLICABLE***	***0 - 1/8 (0.000 mi.)***	***0***	***11***

PRP: A listing of verified Potentially Responsible Parties

A review of the PRP list, as provided by EDR, and dated 10/25/2013 has revealed that there is 1 PRP site within approximately 0.001 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
HUDSON RIVER PCBS	***NO STREET APPLICABLE***	***0 - 1/8 (0.000 mi.)***	***0***	***11***

CONSENT: Major Legal settlements that establish responsibility and standards for cleanup at NPL (superfund) sites. Released periodically by U.S. District Courts after settlement by parties to litigation matters.

A review of the CONSENT list, as provided by EDR, and dated 12/31/2014 has revealed that there is 1 CONSENT site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
HUDSON RIVER PCBS	***NO STREET APPLICABLE***	***0 - 1/8 (0.000 mi.)***	***0***	***11***

EXECUTIVE SUMMARY

FINDS: The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail. These include: RCRIS; Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal Underground Injection Control (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CICS); PADS; RCRA-J (medical waste transporters/disposers); TRIS; and TSCA. The source of this database is the U.S. EPA/NTIS.

A review of the FINDS list, as provided by EDR, and dated 07/20/2015 has revealed that there are 3 FINDS sites within approximately 0.001 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
STUART ROBERTS CO	***36 HUDSON DR***	***0 - 1/8 (0.000 mi.)***	***C5***	***39***
TORCORT MARINA CORP	***36 HUDSON DR***	***0 - 1/8 (0.000 mi.)***	***C10***	***56***
LIGHTGUIDE COMMUNICA	***HUDSON R CROSSING***	***0 - 1/8 (0.000 mi.)***	***C13***	***58***

MANIFEST: Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

A review of the MANIFEST list, as provided by EDR, and dated 05/01/2016 has revealed that there is 1 MANIFEST site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
STUART ROBERTS CO	***36 HUDSON DR***	***0 - 1/8 (0.000 mi.)***	***C5***	***39***
EPA ID: NYD075419655				

ECHO: ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

A review of the ECHO list, as provided by EDR, and dated 09/20/2015 has revealed that there are 3 ECHO sites within approximately 0.001 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
STUART ROBERTS CO	***36 HUDSON DR***	***0 - 1/8 (0.000 mi.)***	***C5***	***39***
TORCORT MARINA CORP	***36 HUDSON DR***	***0 - 1/8 (0.000 mi.)***	***C10***	***56***
LIGHTGUIDE COMMUNICA	***HUDSON R CROSSING***	***0 - 1/8 (0.000 mi.)***	***C13***	***58***

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR Hist Auto: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk

Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Auto list, as provided by EDR, has revealed that there are 2 EDR Hist Auto sites within approximately 0.125 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
Not reported	8 HUDSON DR	SW 0 - 1/8 (0.080 mi.)	D15	60
Not reported	1 HUDSON DR	SSW 0 - 1/8 (0.112 mi.)	D19	65

EXECUTIVE SUMMARY

There were no unmapped sites in this report.

OVERVIEW MAP - 4686673.2S

Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

0 1/4 1/2 1 Miles

Indian Reservations BIA

County Boundary

Power transmission lines

Pipelines

100-year flood zone

500-year flood zone

National Wetland Inventory

State Wetlands

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: 22, 29, 31 Hudson Dr	CLIENT: Atzl, Scatassa, & Zigler PC Engineers
ADDRESS: 22, 29, 31 Hudson Dr Stony Point NY 10980	CONTACT: John Szarowski
	INQUIRY #: 4686673.2s
LAT/LONG: 41.234877 / 73.97518	DATE: July 28, 2016 4:58 pm

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DETAIL MAP - 4686673.2S

Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

0 1/16 1/8 1/4 Miles

Indian Reservations BIA

Power transmission lines

100-year flood zone

500-year flood zone

National Wetland Inventory

State Wetlands

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: 22, 29, 31 Hudson Dr	CLIENT: Atzl, Scatassa, & Zigler PC Engineers
ADDRESS: 22, 29, 31 Hudson Dr Stony Point NY 10980	CONTACT: John Szarowski INQUIRY #: 4686673.2s
LAT/LONG: 41.234877 / 73.97518	DATE: July 28, 2016 4:58 pm

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		1	0	0	0	NR	1
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	0.001		0	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		1	0	0	NR	NR	1
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500		1	0	0	NR	NR	1
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		1	0	NR	NR	NR	1
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		1	0	0	NR	NR	1
US INST CONTROL	0.500		1	0	0	NR	NR	1
Federal ERNS list								
ERNS	0.001		0	NR	NR	NR	NR	0
State- and tribal - equivalent CERCLIS								
SHWS	1.000		0	0	1	0	NR	1
VAPOR REOPENED	1.000		0	0	0	0	NR	0
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
INDIAN LUST	0.500		0	0	0	NR	NR	0
LTANKS	0.500	1	1	1	4	NR	NR	7
HIST LTANKS	0.500		0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250	1	1	2	NR	NR	NR	4
CBS UST	0.250		0	0	NR	NR	NR	0
MOSF UST	0.500		0	0	0	NR	NR	0
MOSF	0.500		0	0	0	NR	NR	0
CBS	0.250		0	0	NR	NR	NR	0
AST	0.250		2	0	NR	NR	NR	2
CBS AST	0.250		0	0	NR	NR	NR	0
MOSF AST	0.500		0	0	0	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
TANKS	0.250		0	0	NR	NR	NR	0
State and tribal institutional control / engineering control registries								
RES DECL	0.125		0	NR	NR	NR	NR	0
ENG CONTROLS	0.500		0	0	0	NR	NR	0
INST CONTROL	0.500		0	0	0	NR	NR	0
State and tribal voluntary cleanup sites								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ERP	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
SWRCY	0.500		0	0	0	NR	NR	0
SWTIRE	0.500		0	0	0	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
DEL SHWS	1.000		0	0	1	0	NR	1
US CDL	0.001		0	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
HIST UST	0.250		0	0	NR	NR	NR	0
HIST AST	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
Local Land Records								
LIENS	0.001		0	NR	NR	NR	NR	0
LIENS 2	0.001		0	NR	NR	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0
NY Spills	0.125		11	NR	NR	NR	NR	11
NY Hist Spills	0.125		0	NR	NR	NR	NR	0
SPILLS 90	0.125		0	NR	NR	NR	NR	0
SPILLS 80	0.125		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		1	0	NR	NR	NR	1
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		1	0	0	0	NR	1
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		1	NR	NR	NR	NR	1
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		1	0	0	0	NR	1
INDIAN RESERV	0.001		0	NR	NR	NR	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
FINDS	0.001	1	3	NR	NR	NR	NR	4
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
AIRS	0.001		0	NR	NR	NR	NR	0
COAL ASH	0.500		0	0	0	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
E DESIGNATION	0.125		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
Financial Assurance	0.001		0	NR	NR	NR	NR	0
HSWDS	0.500		0	0	0	NR	NR	0
MANIFEST	0.250		1	0	NR	NR	NR	1
SPDES	0.001		0	NR	NR	NR	NR	0
UIC	0.001		0	NR	NR	NR	NR	0
ECHO	0.001	1	3	NR	NR	NR	NR	4
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		2	NR	NR	NR	NR	2
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA HWS	0.001		0	NR	NR	NR	NR	0
RGA LF	0.001		0	NR	NR	NR	NR	0
- Totals --		4	34	3	6	0	0	47

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1 Target Property | **WAREHOUSE**
22 HUDSON DR
STONY POINT, NY | **LTANKS** | **S102233611**
N/A

Site 1 of 3 in cluster A

Actual: 0 ft.

LTANKS:

Site ID:	259513
Spill Number/Closed Date:	9604062 / 1997-05-13
Spill Date:	1996-06-21
Spill Cause:	Tank Failure
Spill Source:	Commercial/Industrial
Spill Class:	Known release with minimal potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
Cleanup Ceased:	Not reported
Cleanup Meets Standard:	True
SWIS:	4428
Investigator:	RCHD
Referred To:	Rockland Cnty Health Dept
Reported to Dept:	1996-06-25
CID:	349
Water Affected:	Not reported
Spill Notifier:	Other
Last Inspection:	Not reported
Recommended Penalty:	False
UST Involvement:	True
Remediation Phase:	0
Date Entered In Computer:	1996-06-25
Spill Record Last Update:	2002-03-01
Spiller Name:	F.WILSON-SMITH
Spiller Company:	WAREHOUSE
Spiller Address:	22 HUDSON DR
Spiller City,St,Zip:	STONY POINT, NY
Spiller County:	001
Spiller Contact:	F.WILSON-SMITH
Spiller Phone:	(914) 354-0028
Spiller Extention:	Not reported
DEC Region:	3
DER Facility ID:	212250
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was RCDOH 05/13/1997 PER B. PATTERSON @ RCDOH - STOCKPILE REMOVED. SITE ASSESSMENT RECEIVED. NO FURTHER ACTION. *******SPILL NOT CLOSED OUT ON DEC DATABASE UNTIL 3/1/02 PER NOTE FROM B. PATTERSON. "
Remarks:	"lab results show contamination"

Material:

Site ID:	259513
Operable Unit ID:	1031722
Operable Unit:	01
Material ID:	350341
Material Code:	0001A
Material Name:	#2 fuel oil
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	.00
Units:	Gallons
Recovered:	.00
Resource Affected:	Not reported
Oxygenate:	Not reported

WAREHOUSE (Continued) **S102233611**

Site ID:	259513
Operable Unit ID:	1031722
Operable Unit:	01
Material ID:	350342
Material Code:	0009
Material Name:	gasoline
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	.00
Units:	Gallons
Recovered:	.00
Resource Affected:	Not reported
Oxygenate:	Not reported

Tank Test:

A2 Target Property **F. WILSON SMITH INC.** **UST** **U003528312**
22 HUDSON DRIVE **N/A**
STONY POINT, NY 10980

Site 2 of 3 in cluster A

Actual: 0 ft.

ROCKLAND CO. UST:

Facility:

Facility ID:	3-990527
CBS Number:	Not reported
SPDES Number:	Not reported
Old PBS Number:	Not reported
Federal ID:	13-2590066
Facility Type:	MANUFACTURING
Section:	Not reported
Block:	Not reported
Lot:	Not reported
Site Group:	STONY POINT
Group:	1
SWIS Code:	3928
Facility Telephone:	(914) 429-4357
EMail:	Not reported
Fax Number:	Not reported
Expiration:	12/27/1996
Ren Required:	Not reported
Fee Waiver:	False
Date Created:	Not reported
Emergency:	PETER MATONE
Emergency Telephone:	(914) 429-9265
Operator Name:	F. WILSON SMITH
Owner Name:	F. WILSON & ROSEMARY SMITH
Owner Address:	1 SHERMAN DRIVE
Owner Address 2:	Not reported
Owner City,St,Zip:	GARNERVILLE, NY 10923
Owner Tel:	(914) 354-0028
Owner Type:	Private Resident
Mail Name:	F. WILSON SMITH
Mail Address:	1 SHERMAN DRIVE
Mail Address 2:	Not reported
Mail City,St,Zip:	GARNERVILLE, NY 10923

F. WILSON SMITH INC. (Continued) **U003528312**

Mail Person:	Not reported
Mail Phone:	(914) 429-4357
Tank Id:	572
Tank Number:	1
Tank Status:	Closed-Removed
Install Date:	7/1/1976
Capacity (Gal):	1000
Product:	UNLEADED GASOLINE
Action:	Not reported
Tank Location:	UNDERGROUND
Tank Type:	Steel/carbon steel
Other Tank Type:	N/A
Tank Leak Detection:	0
Tank Leak Detection 2:	0
Tank Internal:	None
Tank External:	None
Tank External2:	None
Access Port (Piping):	False
Pipe Location:	Underground
Pipe Type:	GALVANIZED STEEL
Pipe External:	None
Pipe External2:	None
Pipe Sec Containment:	0
Containment:	None
Containment2:	None
Spill Prevention:	none
Overfill:	None
Overfill2:	None
Dispenser:	Suction
Date Tested:	Not reported
Next Test:	Not reported
Close Date:	5/1/1996
Test Category:	Not reported
Tank Id:	629
Tank Number:	2
Tank Status:	Closed-Removed
Install Date:	7/1/1976
Capacity (Gal):	6000
Product:	NOS 1,2, OR 4 FUEL OIL
Action:	Not reported
Tank Location:	UNDERGROUND
Tank Type:	Steel/carbon steel
Other Tank Type:	N/A
Tank Leak Detection:	0
Tank Leak Detection 2:	0
Tank Internal:	None
Tank External:	None
Tank External2:	None
Access Port (Piping):	False
Pipe Location:	Underground
Pipe Type:	GALVANIZED STEEL
Pipe External:	None
Pipe External2:	None
Pipe Sec Containment:	0
Containment:	None

F. WILSON SMITH INC. (Continued) **U003528312**

Containment2:	None
Spill Prevention:	none
Overfill:	None
Overfill2:	None
Dispenser:	Suction
Date Tested:	Not reported
Next Test:	Not reported
Close Date:	5/1/1996
Test Category:	Not reported

A3 Target Property — **STONY POINT BAY CORP**, **29 HUDSON DR**, **STONY POINT, NY 10980** — **FINDS** **1007752212**, **ECHO** **N/A**

Site 3 of 3 in cluster A

Actual: 0 ft.

FINDS:

Registry ID: 110019146084

Environmental Interest/Information System
FIS (New York - Facility Information System) is New York's Department of Environmental Conservation (DEC) information system for tracking environmental facility information found across the State.

ECHO:

Envid:	1007752212
Registry ID:	110019146084
DFR URL:	http://echo.epa.gov/detailed_facility_report?fid=110019146084

NPL Region — **HUDSON RIVER PCBS**, **NO STREET APPLICABLE**, **HUDSON RIVER, NY 12801** — **NPL** **1000384273**, **SEMS** **NYD980763841**, **RCRA-SQG**, **US ENG CONTROLS**, **US INST CONTROL**, **NY Spills**, **ROD**, **PRP**, **CONSENT**

< 1/8
1 ft.

NPL:

EPA ID:	NYD980763841
Cerclis ID:	202229
EPA Region:	2
Federal:	N
Final Date:	1984-09-21 00:00:00
Site Score:	54.659999999999997
Latitude:	43.110199999999999
Longitude:	-73.576499999999996

Category Details:

NPL Status:	Currently on the Final NPL
Category Description:	Depth To Aquifer-<= 10 Feet
Category Value:	0

HUDSON RIVER PCBS (Continued) **1000384273**

NPL Status: Currently on the Final NPL
Category Description: Distance To Nearest Population-> 0 And <= 1/4 Mile
Category Value: 10

Site Details:
Site Name: HUDSON RIVER PCBS
Site Status: Final
Site Zip: 12801
Site City: HUDSON RIVER
Site State: NY
Federal Site: No
Site County: WASHINGTON
EPA Region: 02
Date Proposed: 09/08/83
Date Deleted: Not reported
Date Finalized: 09/21/84

Substance Details:
NPL Status: Currently on the Final NPL
Substance ID: Not reported
Substance: Not reported
CAS #: Not reported
Pathway: Not reported
Scoring: Not reported

NPL Status: Currently on the Final NPL
Substance ID: A046
Substance: POLYCHLORINATED BIPHENYLS
CAS #: 1336-36-3
Pathway: AIR PATHWAY
Scoring: 4

NPL Status: Currently on the Final NPL
Substance ID: A046
Substance: POLYCHLORINATED BIPHENYLS
CAS #: 1336-36-3
Pathway: SURFACE WATER PATHWAY
Scoring: 4

Summary Details:

Conditions at listing September 1983): The Hudson River PCBs Site is a 40-mile stretch of the Hudson River between Mechanicville and Fort Edward, New York. General Electric Co. discharged an estimated l.l million pounds of PCBs into this stretch of river. The State has identified 40 hot spots, defined as sediments contaminated with greater than 50 parts per million ppm) of PCBs. Also included in the site are five remnant areas, which are river sediments exposed when thelevel of the river was lowered due to removal of the Fort Edward Dam. The State has taken initial measures to stabili e the remnant areas from erosion. In September 1980, Congress passed an amendment to the Clean Water Act CWA) that included the Hudson River PCB Reclamation Demonstration Project. Under this legislation, the EPA Administrator could authori e a 75 percent grant, not to exceed 20 million. EPA issued a final Environmental Impact Statement in October 1982 evaluating various dredging alternatives for a demonstration project. EPA has prepared a feasibility study to evaluate alternative remedial actions under CERCLA. The Administrator has determined that CERCLA funds may be used for remedial action

HUDSON RIVER PCBS (Continued) **1000384273**

atthe remnant areas and for evaluating the effectiveness of the water supply system at Waterford, New York. Status June 1984): EPA has completed a draft feasibility study identifying alternatives for remedial action. A search for partiespotentially responsible for wastes associated with the site has been completed, and EPA has sent letters to two potentially responsible parties notifying them of possible legal action under CERCLA.

Site Status Details:

NPL Status:	Final
Proposed Date:	09/08/1983
Final Date:	09/21/1984
Deleted Date:	Not reported

Narratives Details:

NPL Name:	HUDSON RIVER PCBS
City:	HUDSON RIVER
State:	NY

SEMS:

Site ID:	202229
EPA ID:	NYD980763841
Federal Facility:	N
NPL:	Currently on the Final NPL
Non NPL Status:	Not reported

Following information was gathered from the prior CERCLIS update completed in 10/2013:

Site ID:	0202229
EPA ID:	NYD980763841
Facility County:	WASHINGTON
Short Name:	HUDSON RIVER PCBS
Congressional District:	21
IFMS ID:	0284
SMSA Number:	2975
USGC Hydro Unit:	02020003
Federal Facility:	Not a Federal Facility
DMNSN Number:	0.00000
Site Orphan Flag:	N
RCRA ID:	Not reported
USGS Quadrangle:	Not reported
Site Init By Prog:	Not reported
NFRAP Flag:	Not reported
Parent ID:	Not reported
RST Code:	Not reported
EPA Region:	02
Classification:	Waterways/Creeks/Rivers
Site Settings Code:	SU
NPL Status:	Currently on the Final NPL
DMNSN Unit Code:	Not reported
RBRAC Code:	Not reported
RResp Fed Agency Code:	Not reported
Non NPL Status:	Not reported
Non NPL Status Date:	/ /
Site Fips Code:	36115
CC Concurrence Date:	/ /
CC Concurrence FY:	Not reported
Alias EPA ID:	Not reported

HUDSON RIVER PCBS (Continued) **1000384273**

Site FUDS Flag: Not reported

CERCLIS Site Contact Name(s):
Contact ID: 13002796.00000
Contact Name: JENNIFER LAPOMA
Contact Tel: (212) 637-4328
Contact Title: Remedial Project Manager (RPM)
Contact Email: Not reported

CERCLIS Site Alias Name(s):
Alias ID: 101
Alias Name: HUDSON RIVER PCBS
Alias Address: Not reported
WARREN, NY
Alias ID: 102
Alias Name: HUDSON RIVER PCBS
Alias Address: NO STREET APPLICABLE
NO CITY APPLICABLE, NY 12801
Alias ID: 103
Alias Name: HUDSON RIVER PCBS
Alias Address: NO STREET APPLICABLE
HUDSON RIVER, NY 12801
Alias Comments: Not reported
Site Description: The Hudson River PCBs Site includes a nearly 200 river-mile stretch of the Hudson River in eastern New York State from the Village of Hudson Falls to the Battery in New York City. The Hudson River has been designated an American Heritage River because of its important role in American history and culture. This federal Superfund Record of Decision (ROD) addresses the risks to people and ecological receptors associated with polychlorinated biphenyls (PCBs) in the in-place sediments of the Upper Hudson River. The Site is divided into the Upper Hudson River which is the length of river between Hudson Falls and the Federal Dam at Troy, New York and the Lower Hudson River which is the length of river between Federal Dam at Troy and the Battery. For purposes of this project, EPA further divided the Upper Hudson River area into three main sections known as River Section 1, River Section 2, and River Section 3. The Site also includes five Remnant Deposits, which are areas of PCB-contaminated sediment that became exposed after the river water level dropped following removal of the Fort Edward Dam in 1973. The Upper Hudson River portion of the Site extends from the Fenimore Bridge in Hudson Falls to the Federal Dam at Troy, a distance of just over 43 river miles. The Lower Hudson River extends from the Federal Dam to the southern tip of Manhattan at the Battery in New York City. The Mid-Hudson River, which is primarily a subset of the Lower Hudson River, extends from the Federal Dam at Troy to just south of Poughkeepsie. The predominant sources of PCB contamination to the Upper Hudson River were two capacitor manufacturing plants owned and operated by GE. The plants are located adjacent to or near the Hudson River in the Village of Hudson Falls and the Town of Fort Edward. Over a 30-year period, the plants discharged a substantial amount of PCBs into the river. At the GE Hudson Falls plant, leakage of non-aqueous phase PCB-bearing oils through bedrock to the river continues to be a source of PCB contamination. Regarding the former outfall to the Hudson River from the GE Fort Edward plant, New York State Department of Environmental Conservation (NYSDEC) issued a Record of Decision in January 2000 that calls for the excavation of PCB-contaminated soil and sediment in this area of the Upper Hudson River shoreline in order to eliminate this source of PCBs to the river. EPA's analysis assumes a significantly reduced PCB loading to the river from these sources once the State's plans for

HUDSON RIVER PCBS (Continued) **1000384273**

remediation are implemented. PCBs, the chemicals of concern addressed in this decision document, have been classified by EPA as probable human carcinogens. They are also linked to other serious non- cancer adverse health effects based on observations in animals and emerging evidence in humans. Once discharged from the GE plants, the PCBs adhered to river sediment and accumulated downstream as they settled in impounded pools and other depositional areas. Historic fish and sediment data indicated PCBs were accumulating downstream of the old Fort Edward Dam as well as accumulating behind the dam. The removal of the dam in 1973 resulted in a remobilization and downstream distribution of PCBs that had accumulated behind the dam. Historically, the highest PCB sediment concentrations have been detected in the cohesive sediments within the Upper Hudson River. River scouring/ erosion and other mechanisms have mobilized PCB- contaminated sediments from the extensive cohesive deposits, redepositing them farther downstream all the way to the Battery. The preponderance of data indicates that burial of contaminated sediment by cleaner materials is not universally or uniformly occurring. Data also indicate that contaminated sediments in River Sections 1, 2 and 3 continue to serve as the major source of PCBs to the water column and the fish within the Upper Hudson River. During an approximate 30-year period ending in 1977, PCBs were used in capacitor manufacturing operations Hudson Falls and Fort Edward, New York facilities. PCB oils were discharged both directly and indirectly from these plants into the Hudson River. This included both non-permitted and permitted discharges. Even after permits were received in 1975, permit exceedances occurred. Estimates of the total quantity of PCBs discharged directly from the two plants into the river from the 1940s to 1977 are as high as 1,330,000 pounds (about 605,000 kg). Many of the PCBs discharged to the river adhered to sediments and accumulated with the sediments as they settled in the impounded pool behind the Fort Edward Dam, as well as other depositional areas farther downstream. Because of its deteriorating condition, the Fort Edward Dam was removed in 1973. Five areas of PCB-contaminated sediments were exposed due to the lowering of the river water level when the Fort Edward Dam was removed. These five areas are known as the Remnant Deposits. During subsequent floods, PCB-contaminated sediments from the Fort Edward Dam area were scoured and transported downstream. EPA notified the company that had the two plants of the remedy selected in the 1984 ROD and offered the company the opportunity to implement the selected remedy with respect to the Remnant Deposits and the Waterford drinking water supply evaluation. The company declined EPA's offer. NYSDEC, with funding provided by EPA, conducted the evaluation at the Waterford Water Works. In addition, NYSDEC prepared a design for the in- place containment of the Remnant Deposits. This design was completed in 1988. In March 1989, the company offered to assume responsibility for the implementation of the in-place containment remedy for the Remnant Deposits. EPA issued a September 27, 1989 Administrative Order on Consent to the company which required the company to prepare a remedial design report for the construction of access roads to the Remnant Deposits and to submit a design for the in-place containment of the Remnant Deposits incorporating the NYSDEC-prepared design, plus any EPA-approved refinements to that design. EPA also issued a September 27, 1989 Administrative Order to the company requiring the company to construct and maintain the access roads to the Remnant Deposits. The company constructed the in-place containment of the Remnant Deposits under a 1990 Consent Decree with EPA. EPA will evaluate the need for further remedial action for the Remnant Deposits after completion of a 5-year review of the Remnant Deposit containment remedy, performed pursuant to CERCLA ?121(c). The company's manufacturing plants in Hudson Falls and Fort Edward are listed under the New York State Inactive Hazardous Waste Disposal Sites Remedial program. The company currently is conducting remedial activities near the Hudson Falls and Fort Edward plants pursuant to Orders on Consent with

HUDSON RIVER PCBS (Continued) **1000384273**

NYSDEC. The company has thus far declined to implement the January 2000 NYSDEC Record of Decision for the Fort Edward plant Outfall 004. The NYSDEC is conducting the remedial design for that ROD. As one of America's great rivers, the Hudson has played and will continue to play a major role in the history, culture, and economy of the area. The Hudson has been designated an American Heritage River because of its important role in American history and culture. Current and reasonably-anticipated future land use and surface water use are described below. Current land use includes a variety of residential, commercial and industrial activities. Use of the river and lands surrounding the river are projected to remain the same. At this time, no changes in future land use are known, nor are any new uses expected. The Site passes through 14 different counties as the river flows to its final discharge point in New York Harbor. Four counties (Albany, Washington, Rensselaer, and Saratoga) lie adjacent to the more highly contaminated portions (areas of proposed active remediation in River Sections 1, 2 and 3) of the Upper Hudson River between Troy (Federal Dam) and Hudson Falls. Within these four counties, forests and farmlands surround urban centers and historic villages. There are apple orchards and dairy farms, parks, nature preserves and gardens. In addition to the GE Hudson Falls and Fort Edward plants, the area is home to technology companies, oil service companies and food companies. Saratoga and Washington Counties have experienced population growth between 1990 and 1999 of 10.2 percent and 1.4 percent, respectively, while Rensselaer and Albany Counties have experienced population declines of 1.9 percent and 0.3 percent, respectively. Total population of these four counties, according to July 1999 estimates by the US Department of Commerce Bureau of the Census, is just under 700,000. Warren County, in which the City of Glens Falls is located, has a population of just over 60,000 and is just to the northwest of the Hudson River PCBs Site. A Record of Decision (ROD) addressing operable unit 1 (OU 01) was completed in September 1984. A Record of Decision addressing OU 2 was completed in February 2002.

CERCLIS Assessment History:

Action Code:	001
Action:	DISCOVERY
Date Started:	/ /
Date Completed:	07/01/83
Priority Level:	Not reported
Operable Unit:	SITEWIDE
Primary Responsibility:	EPA Fund-Financed
Planning Status:	Not reported
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

Action Code:	001
Action:	SITE INSPECTION
Date Started:	08/01/83
Date Completed:	09/01/83
Priority Level:	Higher priority for further assessment
Operable Unit:	SITEWIDE
Primary Responsibility:	EPA Fund-Financed
Planning Status:	Not reported
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

Action Code:	001

HUDSON RIVER PCBS (Continued) **1000384273**

Action:	PRELIMINARY ASSESSMENT
Date Started:	/ /
Date Completed:	09/01/83
Priority Level:	Low priority for further assessment
Operable Unit:	SITEWIDE
Primary Responsibility:	EPA Fund-Financed
Planning Status:	Not reported
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

Action Code:	001
Action:	PROPOSAL TO NATIONAL PRIORITIES LIST
Date Started:	/ /
Date Completed:	09/08/83
Priority Level:	Not reported
Operable Unit:	SITEWIDE
Primary Responsibility:	EPA Fund-Financed
Planning Status:	Not reported
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

Action Code:	001
Action:	NATIONAL PRIORITIES LIST RESPONSIBLE PARTY SEARCH
Date Started:	/ /
Date Completed:	11/15/83
Priority Level:	Search Complete, Viable PRPs
Operable Unit:	SITEWIDE
Primary Responsibility:	Federal Enforcement
Planning Status:	Not reported
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

Action Code:	001
Action:	FINAL LISTING ON NATIONAL PRIORITIES LIST
Date Started:	/ /
Date Completed:	09/21/84
Priority Level:	Not reported
Operable Unit:	SITEWIDE
Primary Responsibility:	EPA Fund-Financed
Planning Status:	Not reported
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

Action Code:	001
Action:	COMBINED REMEDIAL INVESTIGATION/FEASIBILITY STUDY
Date Started:	03/30/84
Date Completed:	09/25/84
Priority Level:	Not reported
Operable Unit:	REMNANT DEPOSIT CAPPING
Primary Responsibility:	EPA Fund-Financed
Planning Status:	Primary
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

HUDSON RIVER PCBS (Continued) **1000384273**

Action Code:	001
Action:	RECORD OF DECISION
Date Started:	/ /
Date Completed:	09/25/84
Priority Level:	Not reported
Operable Unit:	REMNANT DEPOSIT CAPPING
Primary Responsibility:	EPA Fund-Financed
Planning Status:	Primary
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

Action Code:	001
Action:	REMEDIAL DESIGN/REMEDIAL ACTION NEGOTIATIONS
Date Started:	10/27/83
Date Completed:	09/28/84
Priority Level:	Not reported
Operable Unit:	SITEWIDE
Primary Responsibility:	Federal Enforcement
Planning Status:	Primary
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

Action Code:	001
Action:	ADMINISTATIVE/VOLUNTARY COST RECOVERY
Date Started:	/ /
Date Completed:	05/04/88
Priority Level:	Not reported
Operable Unit:	SITEWIDE
Primary Responsibility:	Federal Enforcement
Planning Status:	Primary
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

Action Code:	002
Action:	REMEDIAL DESIGN
Date Started:	02/02/89
Date Completed:	06/05/89
Priority Level:	Not reported
Operable Unit:	REMNANT DEPOSIT CAPPING
Primary Responsibility:	EPA Fund-Financed
Planning Status:	Primary
Urgency Indicator:	Not reported
Action Anomaly:	Original Action Take Over

Action Code:	003
Action:	REMEDIAL DESIGN/REMEDIAL ACTION NEGOTIATIONS
Date Started:	06/09/89
Date Completed:	09/27/89
Priority Level:	Not reported
Operable Unit:	SITEWIDE
Primary Responsibility:	Federal Enforcement
Planning Status:	Alternate
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

HUDSON RIVER PCBS (Continued) **1000384273**

Action Code:	002
Action:	REMEDIAL DESIGN/REMEDIAL ACTION NEGOTIATIONS
Date Started:	06/09/89
Date Completed:	09/27/89
Priority Level:	Not reported
Operable Unit:	SITEWIDE
Primary Responsibility:	Federal Enforcement
Planning Status:	Primary
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

Action Code:	001
Action:	ADMINISTRATIVE ORDER ON CONSENT
Date Started:	/ /
Date Completed:	09/27/89
Priority Level:	Not reported
Operable Unit:	REMNANT DEPOSIT CAPPING
Primary Responsibility:	Federal Enforcement
Planning Status:	Primary
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

Action Code:	001
Action:	UNILATERAL ADMIN ORDER
Date Started:	/ /
Date Completed:	09/27/89
Priority Level:	Not reported
Operable Unit:	SITEWIDE
Primary Responsibility:	Federal Enforcement
Planning Status:	Primary
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

Action Code:	004
Action:	REMEDIAL DESIGN/REMEDIAL ACTION NEGOTIATIONS
Date Started:	03/03/89
Date Completed:	04/06/90
Priority Level:	Not reported
Operable Unit:	SITEWIDE
Primary Responsibility:	Federal Enforcement
Planning Status:	Alternate
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

Action Code:	001
Action:	REMEDIAL DESIGN
Date Started:	09/28/84
Date Completed:	05/18/90
Priority Level:	Not reported
Operable Unit:	REMNANT DEPOSIT CAPPING
Primary Responsibility:	State, Fund Financed
Planning Status:	Primary
Urgency Indicator:	Not reported

HUDSON RIVER PCBS (Continued) **1000384273**

Action Anomaly: Original Action Take Over

Action Code: 001
Action: Lodged By DOJ
Date Started: / /
Date Completed: 05/18/90
Priority Level: Not reported
Operable Unit: REMNANT DEPOSIT CAPPING
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: CONSENT DECREE
Date Started: 04/06/90
Date Completed: 07/21/90
Priority Level: Not reported
Operable Unit: REMNANT DEPOSIT CAPPING
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: REMOVAL ASSESSMENT
Date Started: 04/17/90
Date Completed: 08/21/90
Priority Level: Stabilized
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL DESIGN
Date Started: 09/27/89
Date Completed: 09/28/90
Priority Level: Not reported
Operable Unit: REMNANT DEPOSIT CAPPING
Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: New Action Resulting from Take Over

Action Code: 001
Action: REMEDIAL INVESTIGATION/FEASIBILITY STUDY NEGOTIATIONS
Date Started: 03/12/90
Date Completed: 10/04/90
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Alternate

HUDSON RIVER PCBS (Continued) **1000384273**

Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL DESIGN
Date Started: 05/18/89
Date Completed: 01/07/91
Priority Level: Not reported
Operable Unit: REMNANT DEPOSIT CAPPING
Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: New Action Resulting from Take Over

Action Code: 001
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL ACTION
Date Started: 10/13/89
Date Completed: 09/29/92
Priority Level: Not reported
Operable Unit: REMNANT DEPOSIT CAPPING
Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL ACTION
Date Started: 09/28/90
Date Completed: 09/29/92
Priority Level: Not reported
Operable Unit: REMNANT DEPOSIT CAPPING
Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: REMOVAL ASSESSMENT
Date Started: 11/19/92
Date Completed: 12/01/92
Priority Level: Stabilized
Operable Unit: ROGER'S ISLAND
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: COMFORT/STATUS LETTER
Date Started: / /
Date Completed: 11/02/98
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported

HUDSON RIVER PCBS (Continued) **1000384273**

Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 004
Action: REMOVAL ASSESSMENT
Date Started: 10/14/98
Date Completed: 01/07/99
Priority Level: Not reported
Operable Unit: ROGER'S ISLAND
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 003
Action: REMOVAL ASSESSMENT
Date Started: 06/03/98
Date Completed: 06/24/99
Priority Level: Not reported
Operable Unit: ROGER'S ISLAND
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: Public Notice Published
Date Started: / /
Date Completed: 03/28/00
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: REMOVAL
Date Started: 10/06/99
Date Completed: 09/14/01
Priority Level: Stabilized
Operable Unit: ROGER'S ISLAND
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Time Critical
Action Anomaly: Not reported

Action Code: 002
Action: COMBINED REMEDIAL INVESTIGATION/FEASIBILITY STUDY
Date Started: 07/25/90
Date Completed: 02/01/02
Priority Level: Not reported
Operable Unit: REASSESSMENT RIVER
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary

HUDSON RIVER PCBS (Continued) **1000384273**

Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: RECORD OF DECISION
Date Started: / /
Date Completed: 02/01/02
Priority Level: Final Remedy Selected at Site
Operable Unit: REASSESSMENT RIVER
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: Special Notice Issued
Date Started: / /
Date Completed: 02/04/02
Priority Level: Not reported
Operable Unit: REASSESSMENT RIVER
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 003
Action: Special Notice Issued
Date Started: / /
Date Completed: 02/04/02
Priority Level: Not reported
Operable Unit: FLOODPLAINS OU
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: Special Notice Issued
Date Started: / /
Date Completed: 02/04/02
Priority Level: Not reported
Operable Unit: REASSESSMENT RIVER
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 005
Action: REMEDIAL DESIGN/REMEDIAL ACTION NEGOTIATIONS
Date Started: 02/04/02
Date Completed: 07/23/02
Priority Level: Not reported
Operable Unit: REASSESSMENT RIVER

HUDSON RIVER PCBS (Continued) **1000384273**

Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: ADMINISTRATIVE ORDER ON CONSENT
Date Started: / /
Date Completed: 07/23/02
Priority Level: Not reported
Operable Unit: REASSESSMENT RIVER
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 006
Action: REMEDIAL DESIGN/REMEDIAL ACTION NEGOTIATIONS
Date Started: 07/23/02
Date Completed: 08/13/03
Priority Level: Not reported
Operable Unit: REASSESSMENT RIVER
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 003
Action: ADMINISTRATIVE ORDER ON CONSENT
Date Started: / /
Date Completed: 08/13/03
Priority Level: Not reported
Operable Unit: REASSESSMENT RIVER
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: EXPANDED SITE INSPECTION/REMEDIAL INVESTIGATION
Date Started: / /
Date Completed: 08/31/05
Priority Level: Referred to Removal, no further Rmdl Asmt
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 007
Action: REMEDIAL DESIGN/REMEDIAL ACTION NEGOTIATIONS
Date Started: 02/04/02

HUDSON RIVER PCBS (Continued) **1000384273**

Date Completed: 09/06/05
Priority Level: Not reported
Operable Unit: REASSESSMENT RIVER
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: TECHNICAL ASSISTANCE GRANT
Date Started: 09/29/95
Date Completed: 09/20/05
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: Lodged By DOJ
Date Started: / /
Date Completed: 10/06/05
Priority Level: Not reported
Operable Unit: REASSESSMENT RIVER
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: COMMUNITY INVOLVEMENT
Date Started: 03/25/02
Date Completed: 11/02/06
Priority Level: Not reported
Operable Unit: REASSESSMENT RIVER
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Remedial
Action Anomaly: Not reported

Action Code: 002
Action: CONSENT DECREE
Date Started: 09/06/05
Date Completed: 11/02/06
Priority Level: Not reported
Operable Unit: REASSESSMENT RIVER
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: UNILATERAL ADMIN ORDER

HUDSON RIVER PCBS (Continued) **1000384273**

Date Started: / /
Date Completed: 03/29/07
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: STATE SUPPORT AGENCY COOPERATIVE AGREEMENT
Date Started: 02/22/91
Date Completed: 04/03/07
Priority Level: Not reported
Operable Unit: REASSESSMENT RIVER
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: REMOVAL NEGOTIATIONS
Date Started: / /
Date Completed: 07/11/07
Priority Level: Not reported
Operable Unit: FLOODPLAINS OU
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 005
Action: ADMINISTRATIVE ORDER ON CONSENT
Date Started: / /
Date Completed: 07/11/07
Priority Level: Not reported
Operable Unit: FLOODPLAINS OU
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: POTENTIALLY RESPONSIBLE PARTY EMERGENCY REMOVAL
Date Started: 08/24/07
Date Completed: 08/27/07
Priority Level: Cleaned up
Operable Unit: SITEWIDE
Primary Responsibility: Responsible Party
Planning Status: Not reported
Urgency Indicator: Emergency
Action Anomaly: Not reported

HUDSON RIVER PCBS (Continued) **1000384273**

Action Code: 004
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL DESIGN
Date Started: 08/14/03
Date Completed: 01/25/08
Priority Level: Not reported
Operable Unit: REASSESSMENT RIVER
Primary Responsibility: Responsible Party
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Phased Start

Action Code: 001
Action: SECTION 104(E) REF LITIGATION
Date Started: 09/27/07
Date Completed: 07/28/08
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 004
Action: UNILATERAL ADMIN ORDER
Date Started: / /
Date Completed: 09/05/08
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 003
Action: UNILATERAL ADMIN ORDER
Date Started: / /
Date Completed: 09/05/08
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: REMEDIAL INVESTIGATION/FEASIBILITY STUDY NEGOTIATIONS
Date Started: 02/04/02
Date Completed: 09/08/08
Priority Level: Not reported
Operable Unit: FLOODPLAINS OU
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

HUDSON RIVER PCBS (Continued) **1000384273**

Action Code:	006
Action:	ADMINISTRATIVE ORDER ON CONSENT
Date Started:	/ /
Date Completed:	09/08/08
Priority Level:	Not reported
Operable Unit:	FLOODPLAINS OU
Primary Responsibility:	Federal Enforcement
Planning Status:	Not reported
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

Action Code:	005
Action:	UNILATERAL ADMIN ORDER
Date Started:	/ /
Date Completed:	09/11/08
Priority Level:	Not reported
Operable Unit:	SITEWIDE
Primary Responsibility:	Federal Enforcement
Planning Status:	Not reported
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

Action Code:	006
Action:	UNILATERAL ADMIN ORDER
Date Started:	/ /
Date Completed:	10/14/08
Priority Level:	Not reported
Operable Unit:	SITEWIDE
Primary Responsibility:	Federal Enforcement
Planning Status:	Not reported
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

Action Code:	007
Action:	UNILATERAL ADMIN ORDER
Date Started:	/ /
Date Completed:	02/03/09
Priority Level:	Not reported
Operable Unit:	SITEWIDE
Primary Responsibility:	Federal Enforcement
Planning Status:	Not reported
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

Action Code:	002
Action:	REMEDIAL ACTION
Date Started:	05/09/08
Date Completed:	11/24/09
Priority Level:	Final RA Report
Operable Unit:	REASSESSMENT RIVER
Primary Responsibility:	Special Account Financed Action - EPA
Planning Status:	Not reported
Urgency Indicator:	Not reported

HUDSON RIVER PCBS (Continued) **1000384273**

Action Anomaly: Not reported

Action Code: 003
Action: REMEDIAL ACTION
Date Started: 12/04/08
Date Completed: 12/23/09
Priority Level: Final RA Report
Operable Unit: REASSESSMENT RIVER
Primary Responsibility: Special Account Financed Action - EPA
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 006
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL DESIGN
Date Started: 08/14/03
Date Completed: 04/26/11
Priority Level: Not reported
Operable Unit: REASSESSMENT RIVER
Primary Responsibility: Responsible Party
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: POTENTIALLY RESPONSIBLE PARTY REMOVAL
Date Started: 09/11/07
Date Completed: 04/10/12
Priority Level: Stabilized
Operable Unit: FLOODPLAINS OU
Primary Responsibility: Responsible Party
Planning Status: Not reported
Urgency Indicator: Time Critical
Action Anomaly: Not reported

Action Code: 001
Action: FIVE-YEAR REVIEW
Date Started: / /
Date Completed: 06/01/12
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 003
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL ACTION
Date Started: 09/06/05
Date Completed: 09/04/12
Priority Level: Not reported
Operable Unit: REASSESSMENT RIVER
Primary Responsibility: Responsible Party
Planning Status: Not reported
Urgency Indicator: Not reported

HUDSON RIVER PCBS (Continued) **1000384273**

Action Anomaly: Not reported

Action Code: 001
Action: TECHNICAL ASSISTANCE
Date Started: 09/30/97
Date Completed: / /
Priority Level: Not reported
Operable Unit: REASSESSMENT RIVER
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 003
Action: REMEDIAL DESIGN
Date Started: 02/15/02
Date Completed: / /
Priority Level: Not reported
Operable Unit: REASSESSMENT RIVER
Primary Responsibility: Special Account Financed Action - EPA
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Other Completion Anomaly

Action Code: 003
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL DESIGN
Date Started: 07/23/02
Date Completed: / /
Priority Level: Not reported
Operable Unit: REASSESSMENT RIVER
Primary Responsibility: Responsible Party
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Phased Start & Completion

Action Code: 002
Action: TECHNICAL ASSISTANCE
Date Started: 07/08/03
Date Completed: / /
Priority Level: Not reported
Operable Unit: REASSESSMENT RIVER
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: REMEDIAL ACTION
Date Started: 01/19/07
Date Completed: / /
Priority Level: Not reported
Operable Unit: REASSESSMENT RIVER
Primary Responsibility: Special Account Financed Action - State
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Other Start and Completion Anomaly

HUDSON RIVER PCBS (Continued) **1000384273**

Action Code: 001
Action: REAL PROPERTY ACQUISITION
Date Started: 02/15/08
Date Completed: / /
Priority Level: Not reported
Operable Unit: REASSESSMENT RIVER
Primary Responsibility: Not reported
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL INVESTIGATION/FEASIBILITY STUDY
Date Started: 09/08/08
Date Completed: / /
Priority Level: Not reported
Operable Unit: FLOODPLAINS OU
Primary Responsibility: Responsible Party
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: TECHNICAL ASSISTANCE GRANT
Date Started: 11/17/09
Date Completed: / /
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 004
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL ACTION
Date Started: 12/31/10
Date Completed: / /
Priority Level: Not reported
Operable Unit: REASSESSMENT RIVER
Primary Responsibility: Responsible Party
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Federal Register Details:
Fed Register Date: 09/21/84
Fed Register Volume: 49
Page Number: 37070

Fed Register Date: 09/08/83
Fed Register Volume: 48
Page Number: 40674

RCRA-SQG:
Date form received by agency: 03/03/2014

HUDSON RIVER PCBS (Continued) **1000384273**

Facility name:	GE HUDSON RIVER SEDIMENT REMEDIATION PROCESSING AND TRANSPORTATION FACILITY
Facility address:	446 LOCK 8 WAY HUDSON FALLS, NY 12839
EPA ID:	NYD980763841
Mailing address:	BROADWAY BLDG 40 FORT EDWARD, NY 12828
Contact:	JAY SNOW
Contact address:	BROADWAY BLDG 40 FORT EDWARD, NY 12828
Contact country:	US
Contact telephone:	(518) 746-5678
Contact email:	JAY.SNOW@GE.COM
EPA Region:	02
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	GE HUDSON RIVER SEDIMENT REMEDIATION
Owner/operator address:	BROADWAY FORT EDWARD, NY 12828
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	04/23/2007
Owner/Op end date:	Not reported

Owner/operator name:	GE HUDSON RIVER SEDIMENT REMEDIATION
Owner/operator address:	BROADWAY FORT EDWARD, NY 12828
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	04/23/2007
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No

HUDSON RIVER PCBS (Continued) **1000384273**

Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: B007
. Waste name: B007

Historical Generators:
Date form received by agency: 03/01/2012
Site name: GE HUDSON RIVER SEDIMENT REMEDIATION PROCESSING AND TRANSPORTATION FACILITY
Classification: Large Quantity Generator

. Waste code: B002
. Waste name: B002

. Waste code: B007
. Waste name: B007

Date form received by agency: 03/03/2010
Site name: GE HUDSON RIVER SEDIMENT REMEDIATION PROCESSING AND TRANSPORTATION FACILITY
Classification: Large Quantity Generator

. Waste code: B007
. Waste name: B007

Date form received by agency: 08/29/2008
Site name: HUDSON RIVER PCBS (ROGERS ISLAND) SUPERFUND USEPA
Classification: Large Quantity Generator

Date form received by agency: 01/01/2007
Site name: HUDSON RIVER PCBS (ROGERS ISLAND) USEPA
Classification: Not a generator, verified

Date form received by agency: 01/01/2006
Site name: HUDSON RIVER PCBS (ROGERS ISLAND) USEPA
Classification: Not a generator, verified

Date form received by agency: 01/01/2001
Site name: HUDSON RIVER PCBS (ROGERS ISLAND) USEPA
Classification: Large Quantity Generator

Violation Status: No violations found

US ENG CONTROLS:
EPA ID: NYD980763841
Site ID: 0202229

HUDSON RIVER PCBS (Continued) **1000384273**

Name: HUDSON RIVER PCBS
Address: NO STREET APPLICABLE
HUDSON RIVER, NY 12801
EPA Region: 02
County: WASHINGTON
Event Code: Not reported
Actual Date: 12/30/2001
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 09/25/1984
Operable Unit: 01
Contaminated Media : Sediment
Engineering Control: Containment, (N.O.S.)
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 09/25/1984
Operable Unit: 01
Contaminated Media : Sediment
Engineering Control: No Action
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 09/25/1984
Operable Unit: 01
Contaminated Media : Sediment
Engineering Control: Revegetation
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 09/25/1984
Operable Unit: 01
Contaminated Media : Sediment
Engineering Control: Slope Stabilization
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 002

HUDSON RIVER PCBS (Continued) **1000384273**

Action Name: RECORD OF DECISION
Action Completion date: 02/01/2002
Operable Unit: 02
Contaminated Media : Sediment
Engineering Control: Dewatering
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 002
Action Name: RECORD OF DECISION
Action Completion date: 02/01/2002
Operable Unit: 02
Contaminated Media : Sediment
Engineering Control: Disposal
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 002
Action Name: RECORD OF DECISION
Action Completion date: 02/01/2002
Operable Unit: 02
Contaminated Media : Sediment
Engineering Control: Excavation
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 002
Action Name: RECORD OF DECISION
Action Completion date: 02/01/2002
Operable Unit: 02
Contaminated Media : Sediment
Engineering Control: Solidification/Stabilization (Ex-Situ)
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 002
Action Name: RECORD OF DECISION
Action Completion date: 02/01/2002
Operable Unit: 02
Contaminated Media : Surface Water
Engineering Control: Monitoring
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 002
Action Name: RECORD OF DECISION
Action Completion date: 02/01/2002

HUDSON RIVER PCBS (Continued) **1000384273**

Operable Unit: 02
Contaminated Media : Surface Water
Engineering Control: Natural Attenuation
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

US INST CONTROL:
EPA ID: NYD980763841
Site ID: 0202229
Name: HUDSON RIVER PCBS
Action Name: RECORD OF DECISION
Address: NO STREET APPLICABLE
HUDSON RIVER, NY 12801
EPA Region: 02
County: WASHINGTON
Event Code: Not reported
Inst. Control: Fishing Advisory
Actual Date: 12/30/2001
Complet. Date: 02/01/2002
Operable Unit: 02
Contaminated Media : Surface Water
Contact Name : Not reported
Contact Phone and Ext : Not reported
Latitude : Not reported
Longitude : Not reported

SPILLS:
Facility ID: 0308107
Facility Type: ER
DER Facility ID: 278391
Site ID: 237813
DEC Region: 3
Spill Date: 2003-10-31
Spill Number/Closed Date: 0308107 / 2003-10-31
Spill Cause: Abandoned Drums
Spill Class: Possible release with minimal potential for fire or hazard or Known release with no damage. DEC Response. Willing Responsible Party. Corrective action taken.
SWIS: 6000
Investigator: rxamato
Referred To: Not reported
Reported to Dept: 2003-10-31
CID: 297
Water Affected: HUDSON RIVER
Spill Source: Unknown
Spill Notifier: Federal Government
Cleanup Ceased: Not reported
Cleanup Meets Std: True
Last Inspection: Not reported
Recommended Penalty: False
UST Trust: False
Remediation Phase: 0
Date Entered In Computer: 2003-10-31

HUDSON RIVER PCBS (Continued) **1000384273**

Spill Record Last Update: 2003-11-06
Spiller Name: Not reported
Spiller Company: UNKNOWN
Spiller Address: Not reported
Spiller City,St,Zip: ZZ -
Spiller Company: 001
Contact Name: PETTY OFFFICER HAWKINS
Contact Phone: (718) 354-4121
DEC Memo: "Prior to Sept, 2004 data translation this spill Lead_DEC Field was SMITH 10/31/03: MEG hired by USCG to remove test and dispose. Container did not leak."
Remarks: "CALL TO NRC REPORTING A 55 GALLON DRUM OF UNKNOWN PETROLEUM FLOATING - USCG IS REPOSNDING TO THE SITE"

Material:
Site ID: 237813
Operable Unit ID: 874400
Operable Unit: 01
Material ID: 501630
Material Code: 0066A
Material Name: unknown petroleum
Case No.: Not reported
Material FA: Petroleum
Quantity: 55.00
Units: Gallons
Recovered: .00
Resource Affected: Not reported
Oxygenate: Not reported

Tank Test:

ROD:
Full-text of USEPA Record of Decision(s) is available from EDR.

PRP:
PRP name: DELAWARE AND HUDSON RAILWAY CO INC
GENERAL ELECTRIC COMPANY
GENERAL ELECTRIC COMPANY
GENERAL ELECTRIC COMPANY
GENERAL ELECTRIC COMPANY
GENERAL ELECTRIC COMPANY
GENERAL ELECTRIC COMPANY
GENERAL ELECTRIC COMPANY
GENERAL ELECTRIC COMPANY
GOLUB PROPERTIES OF WATERVLIET INC
NEW YORK STATE CANAL CORPORATION
NIAGARA MOHAWK POWER COMPANY
TOWN OF HALFMOON NEW YORK
VILLAGE OF STILLWATER
WATER COMMISSIONERS OF THE TOWN OF WATERFORD

CONSENT:
EPA ID: NYD980763841
Site ID: 0284
Case Title: U.S.V. GENERAL ELECTRIC COMPANY (HUDSON RIVER) (EPA-SUPERFUND)

HUDSON RIVER PCBS (Continued) **1000384273**

Court Num: 05-1270
District: New York, North
Entered Date: 11/02/06
Full-text of the consent decree for this site issued by the United States District Court is available from EDR. Contact your EDR Account Executive.

B4 **SEWER** **NY Spills** **S111237516**
BEACH ROAD **N/A**
< 1/8 **STONY POINT, NY**
1 ft.

Site 1 of 2 in cluster B

Relative:
Higher

Actual:
7 ft.

SPILLS:

Facility ID:	1106036
Facility Type:	ER
DER Facility ID:	313278
Site ID:	453712
DEC Region:	3
Spill Date:	2011-08-28
Spill Number/Closed Date:	1106036 / 2011-09-06
Spill Cause:	Other
Spill Class:	No spill occured. No DEC Response. No corrective action required.
SWIS:	4428
Investigator:	jbodee
Referred To:	Not reported
Reported to Dept:	2011-08-28
CID:	Not reported
Water Affected:	Not reported
Spill Source:	Major Facility (MOSF) > 400,000 gal
Spill Notifier:	Local Agency
Cleanup Ceased:	Not reported
Cleanup Meets Std:	False
Last Inspection:	Not reported
Recommended Penalty:	False
UST Trust:	False
Remediation Phase:	0
Date Entered In Computer:	2011-08-28
Spill Record Last Update:	2011-09-06
Spiller Name:	JAMES OCONNER
Spiller Company:	TOWN OF STONY POINT - SEWER DEPT
Spiller Address:	BEACH ROAD
Spiller City,St,Zip:	NY
Spiller Company:	999
Contact Name:	JAMES OCONNER
Contact Phone:	(845) 783-3038
DEC Memo:	"9/6/11: Sewage overflow from Hurricane Irene. Referred to Div of Water and County Health. NFA jod"
Remarks:	"RAW SEWAGE - DUE TO STORM RELATED"

Material:

Site ID:	453712
Operable Unit ID:	1203868
Operable Unit:	01
Material ID:	2200602
Material Code:	0062A
Material Name:	raw sewage
Case No.:	Not reported

SEWER (Continued) **S111237516**

Material FA: Other
Quantity: Not reported
Units: Not reported
Recovered: Not reported
Resource Affected: Not reported
Oxygenate: Not reported

Tank Test:

C5 **STUART ROBERTS CO** **RCRA NonGen / NLR** **1000156152**
36 HUDSON DR **FINDS** **NYD075419655**
< 1/8 **STONY POINT, NY 10980** **MANIFEST**
1 ft. **ECHO**

Site 1 of 7 in cluster C

Relative:
Higher

Actual:
14 ft.

RCRA NonGen / NLR:
Date form received by agency: 01/01/2007
Facility name: STUART ROBERTS CO
Facility address: 36 HUDSON DR
STONY POINT, NY 109801406
EPA ID: NYD075419655
Mailing address: HUDSON DR
STONY POINT, NY 10980
Contact: Not reported
Contact address: HUDSON DR
STONY POINT, NY 10980
Contact country: US
Contact telephone: Not reported
Contact email: Not reported
EPA Region: 02
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: Not reported
Owner/operator address: NOT REQUIRED
NOT REQUIRED, WY 99999
Owner/operator country: US
Owner/operator telephone: (212) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: Not reported
Owner/operator address: NOT REQUIRED
NOT REQUIRED, WY 99999
Owner/operator country: US
Owner/operator telephone: (212) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

STUART ROBERTS CO (Continued) **1000156152**

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 01/01/2006
Site name: STUART ROBERTS CO
Classification: Not a generator, verified

Date form received by agency: 07/08/1999
Site name: STUART ROBERTS CO
Classification: Not a generator, verified

Date form received by agency: 07/08/1985
Site name: STUART ROBERTS CO
Classification: Large Quantity Generator

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: F009
. Waste name: SPENT STRIPPING AND CLEANING BATH SOLUTIONS FROM ELECTROPLATING OPERATIONS IN WHICH CYANIDES ARE USED IN THE PROCESS.

Violation Status: No violations found

FINDS:

Registry ID: 110004368559

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

NY MANIFEST:
Country: USA
EPA ID: NYD075419655
Facility Status: Not reported
Location Address 1: 36 HUDSON DRIVE
Code: BP

STUART ROBERTS CO (Continued) **1000156152**

Location Address 2:	Not reported
Total Tanks:	Not reported
Location City:	STONY POINT
Location State:	NY
Location Zip:	10980
Location Zip 4:	Not reported

NY MANIFEST:

EPAID:	NYD075419655
Mailing Name:	STUART ROBERTS COMPANY
Mailing Contact:	STUART ROBERTS COMPANY
Mailing Address 1:	36 HUDSON DRIVE
Mailing Address 2:	Not reported
Mailing City:	STONY POINT
Mailing State:	NY
Mailing Zip:	10980
Mailing Zip 4:	Not reported
Mailing Country:	USA
Mailing Phone:	9149420003

NY MANIFEST:

Document ID:	NYA8536581
Manifest Status:	C
seq:	Not reported
Year:	1989
Trans1 State ID:	000000000
Trans2 State ID:	000000000
Generator Ship Date:	05/16/1989
Trans1 Recv Date:	05/16/1989
Trans2 Recv Date:	/ /
TSD Site Recv Date:	05/16/1989
Part A Recv Date:	05/25/1989
Part B Recv Date:	05/23/1989
Generator EPA ID:	NYD075419655
Trans1 EPA ID:	NJD981873664
Trans2 EPA ID:	Not reported
TSDF ID 1:	NYD000691949
TSDF ID 2:	Not reported
Manifest Tracking Number:	Not reported
Import Indicator:	Not reported
Export Indicator:	Not reported
Discr Quantity Indicator:	Not reported
Discr Type Indicator:	Not reported
Discr Residue Indicator:	Not reported
Discr Partial Reject Indicator:	Not reported
Discr Full Reject Indicator:	Not reported
Manifest Ref Number:	Not reported
Alt Facility RCRA ID:	Not reported
Alt Facility Sign Date:	Not reported
MGMT Method Type Code:	Not reported
Waste Code:	D002 - NON-LISTED CORROSIVE WASTES
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Quantity:	00900

STUART ROBERTS CO (Continued) **1000156152**

Units:	G - Gallons (liquids only)* (8.3 pounds)
Number of Containers:	001
Container Type:	TT - Cargo tank, tank trucks
Handling Method:	T Chemical, physical, or biological treatment.
Specific Gravity:	100

ECHO:

Envid:	1000156152
Registry ID:	110004368559
DFR URL:	http://echo.epa.gov/detailed_facility_report?fid=110004368559

C6 **SEWER LINE ON STREET** **NY Spills** **S110139970**
36 HUDSON DR **N/A**
< 1/8 **STONY POINT, NY**
1 ft.

Site 2 of 7 in cluster C

Relative: Higher

Actual: 14 ft.

SPILLS:

Facility ID:	1205209
Facility Type:	ER
DER Facility ID:	422427
Site ID:	468132
DEC Region:	3
Spill Date:	2012-08-23
Spill Number/Closed Date:	1205209 / 2012-10-18
Spill Cause:	Housekeeping
Spill Class:	Known release that creates potential for fire or hazard. (Highly Improbable)
SWIS:	4428
Investigator:	MXTIPPLE
Referred To:	Not reported
Reported to Dept:	2012-08-23
CID:	Not reported
Water Affected:	Not reported
Spill Source:	Commercial/Industrial
Spill Notifier:	Citizen
Cleanup Ceased:	Not reported
Cleanup Meets Std:	True
Last Inspection:	Not reported
Recommended Penalty:	False
UST Trust:	False
Remediation Phase:	0
Date Entered In Computer:	2012-08-23
Spill Record Last Update:	2012-12-04
Spiller Name:	ANONYMOUS JAMES
Spiller Company:	STONY POINT MARINA
Spiller Address:	36 HUDSON AVE
Spiller City,St,Zip:	STONY POINT, NY
Spiller Company:	999
Contact Name:	ANONYMOUS JAMES
Contact Phone:	816284-7333
DEC Memo:	"8/23/12 Caller reports improper storage (i.e open containers) of petroleum products in the storage sheds on site. RCHD has been contacted as this may be a RC PBS site, and therefore, under their jurisdiction. Called and left message for Dan Sullivan, after speaking with Ebi. dw 8/24/12 Dan Sullivan called back and left

SEWER LINE ON STREET (Continued) **S110139970**

	message. He said that site was supposed to be registered as RC PBS. He will be doing a site inspection after the weekend, and will update DEC as needed. dw 8/29/12 William Going retained to conduct remedial work as necessary and to get the site into PBS compliance for RCDOH. mt"
Remarks:	"caller would like inspection done, he does not believe waste oil and haz materials mixed with water are being contained and disposed of properly."

Material:

Site ID:	468132
Operable Unit ID:	1218064
Operable Unit:	01
Material ID:	2216422
Material Code:	0022
Material Name:	waste oil/used oil
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	Not reported
Units:	Not reported
Recovered:	Not reported
Resource Affected:	Not reported
Oxygenate:	Not reported

Tank Test:

Facility ID:	0911599
Facility Type:	ER
DER Facility ID:	373363
Site ID:	424422
DEC Region:	3
Spill Date:	2010-01-29
Spill Number/Closed Date:	0911599 / 2010-01-29
Spill Cause:	Other
Spill Class:	Not reported
SWIS:	4428
Investigator:	MBMASTRO
Referred To:	Not reported
Reported to Dept:	2010-01-29
CID:	Not reported
Water Affected:	HUDSON RIVER
Spill Source:	Unknown
Spill Notifier:	Other
Cleanup Ceased:	Not reported
Cleanup Meets Std:	False
Last Inspection:	Not reported
Recommended Penalty:	False
UST Trust:	False
Remediation Phase:	0
Date Entered In Computer:	2010-01-29
Spill Record Last Update:	2010-01-29
Spiller Name:	Not reported
Spiller Company:	TOWN OF STONY POINT
Spiller Address:	Not reported
Spiller City,St,Zip:	NY
Spiller Company:	999

SEWER LINE ON STREET (Continued) **S110139970**

Contact Name: JAMES O'CONNOR
Contact Phone: (845) 786-3038
DEC Memo: "1/29/10 forwarded spill report to DOW, nfa...mm"
Remarks: "blockage in line - unknown time and amount for leak - cleanup pending - possibly 2 days for leak"

Material:
Site ID: 424422
Operable Unit ID: 1180196
Operable Unit: 01
Material ID: 2174068
Material Code: 0062A
Material Name: raw sewage
Case No.: Not reported
Material FA: Other
Quantity: .00
Units: Gallons
Recovered: .00
Resource Affected: Not reported
Oxygenate: Not reported

Tank Test:

Facility ID: 9404391
Facility Type: ER
DER Facility ID: 169763
Site ID: 204140
DEC Region: 3
Spill Date: 1994-06-29
Spill Number/Closed Date: 9404391 / 1997-11-25
Spill Cause: Deliberate
Spill Class: Known release with minimal potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
SWIS: 4428
Investigator: tdghiosa
Referred To: Not reported
Reported to Dept: 1994-06-29
CID: Not reported
Water Affected: STONY PT. BAY
Spill Source: Vessel
Spill Notifier: Federal Government
Cleanup Ceased: Not reported
Cleanup Meets Std: True
Last Inspection: Not reported
Recommended Penalty: False
UST Trust: False
Remediation Phase: 0
Date Entered In Computer: 1994-06-30
Spill Record Last Update: 1997-12-17
Spiller Name: Not reported
Spiller Company: VESSEL BAD HABIT
Spiller Address: Not reported
Spiller City,St,Zip: ZZ
Spiller Company: 001
Contact Name: Not reported
Contact Phone: Not reported

SEWER LINE ON STREET (Continued) **S110139970**

DEC Memo: "Prior to Sept, 2004 data translation this spill Lead_DEC Field was GHIOSAY "
Remarks: "PUMPING BILGE UNKNOWN ACTION"

Material:
Site ID: 204140
Operable Unit ID: 998238
Operable Unit: 01
Material ID: 380999
Material Code: 0022
Material Name: waste oil/used oil
Case No.: Not reported
Material FA: Petroleum
Quantity: .00
Units: Pounds
Recovered: .00
Resource Affected: Not reported
Oxygenate: Not reported

Tank Test:

C7 **STONY POINT MARINA** **UST** **U003528538**
36 HUDSON DRIVE **AST** **N/A**
< 1/8 **STONY POINT, NY 10980**
1 ft.

Site 3 of 7 in cluster C

Relative: Higher

Actual: 14 ft.

ROCKLAND CO. UST:

Facility:
Facility ID: 3-990698
CBS Number: Not reported
SPDES Number: Not reported
Old PBS Number: Not reported
Federal ID: 13-3558521
Facility Type: OTHER
Section: Not reported
Block: Not reported
Lot: Not reported
Site Group: STONY POINT
Group: 1
SWIS Code: 3928
Facility Telephone: (845) 429-0100
EMail: Not reported
Fax Number: Not reported
Expiration: 12/27/2001
Ren Required: Not reported
Fee Waiver: False
Date Created: Not reported
Emergency: WAYNE CORTS
Emergency Telephone: (845) 786-5270
Operator Name: WAYNE CORTS
Owner Name: WAYNE CORTS / KEN TORSO
Owner Address: 9 HUDSON DRIVE
Owner Address 2: Not reported
Owner City,St,Zip: STONY POINT, NY 10980
Owner Tel: (845) 786-5270

STONY POINT MARINA (Continued) **U003528538**

Owner Type:	Corporate/Commercial
Mail Name:	WILLOW COVE MARINA
Mail Address:	9 HUDSON DRIVE
Mail Address 2:	Not reported
Mail City,St,Zip:	STONY POINT, NY 10980
Mail Person:	WAYNE CORTS
Mail Phone:	(845) 786-5270

Tank Id:	2125
Tank Number:	1
Tank Status:	Closed-Removed
Install Date:	Not reported
Capacity (Gal):	500
Product:	EMPTY
Action:	Not reported
Tank Location:	UNDERGROUND
Tank Type:	Steel/carbon steel
Other Tank Type:	N/A
Tank Leak Detection:	0
Tank Leak Detection 2:	0
Tank Internal:	None
Tank External:	None
Tank External2:	None
Access Port (Piping):	False
Pipe Location:	None
Pipe Type:	NONE
Pipe External:	None
Pipe External2:	None
Pipe Sec Containment:	0
Containment:	None
Containment2:	None
Spill Prevention:	none
Overfill:	None
Overfill2:	None
Dispenser:	0
Date Tested:	Not reported
Next Test:	Not reported
Close Date:	1/1/1997
Test Category:	Not reported

Tank Id:	2127
Tank Number:	3
Tank Status:	Closed-Removed
Install Date:	Not reported
Capacity (Gal):	1000
Product:	NOS 1,2, OR 4 FUEL OIL
Action:	Not reported
Tank Location:	UNDERGROUND
Tank Type:	Steel/carbon steel
Other Tank Type:	N/A
Tank Leak Detection:	0
Tank Leak Detection 2:	0
Tank Internal:	None
Tank External:	None
Tank External2:	None
Access Port (Piping):	False
Pipe Location:	None

STONY POINT MARINA (Continued) **U003528538**

Pipe Type:	NONE
Pipe External:	None
Pipe External2:	None
Pipe Sec Containment:	0
Containment:	None
Containment2:	None
Spill Prevention:	none
Overfill:	None
Overfill2:	None
Dispenser:	0
Date Tested:	Not reported
Next Test:	Not reported
Close Date:	Not reported
Test Category:	Not reported

ROCKLAND CO. AST:

Facility:

Facility ID:	3-990698
CBS Number:	Not reported
SPDES Number:	Not reported
Old PBSNO:	Not reported
Federal ID:	13-3558521
Facility Type:	OTHER
Section:	Not reported
Block:	Not reported
Lot:	Not reported
Site Group:	STONY POINT
Group:	1
SWIS Code:	3928
Facility Telephone:	(845) 429-0100
Expiration:	12/27/2001
Ren Required:	Not reported
Fee Waiver:	False
Date Created:	Not reported
Emergency:	WAYNE CORTS
Emergency Telephone:	(845) 786-5270
Operator Name:	WAYNE CORTS
Owner Name:	WAYNE CORTS / KEN TORSO
Owner Address:	9 HUDSON DRIVE
Owner Address 2:	Not reported
Owner City,St,Zip:	STONY POINT, NY 10980
Owner Tel:	(845) 786-5270
Owner Type:	Corporate/Commercial
Mail Name:	WILLOW COVE MARINA
Mail Address:	9 HUDSON DRIVE
Mail Address 2:	Not reported
Mail City,St,Zip:	STONY POINT, NY 10980
Mail Person:	WAYNE CORTS
Mail Phone:	(845) 786-5270
Fax:	Not reported

Tank Id:	2126
Tank Number:	2
Tank Status:	In Service
Install Date:	Not reported
Capacity (Gal):	550

STONY POINT MARINA (Continued) **U003528538**

Product:	Nos.1 2 or 4 Fuel Oil
Action:	Not reported
Tank Location:	ABOVEGROUND
Tank Type:	Steel/carbon steel
Other Tank Type:	N/A
Tank Leak Detection:	0
Tank Leak Detection 2:	0
Tank Internal:	None
Tank External:	Painted/Asphalt Coating
Tank External2:	None
Access Port (Piping):	False
Pipe Location:	None
Pipe Type:	NONE
Pipe External:	None
Pipe External2:	None
Pipe Sec. Containment:	0
Pipe Leak Detection:	0
Pipe Leak Detection 2:	0
Containment:	None
Containment2:	None
Spill Prevention:	none
Overfill:	None
Overfill2:	None
Dispenser:	0
Date Tested:	Not reported
Next Test:	Not reported
Close Date:	Not reported
Test Category:	Not reported
Flag:	False

Tank Id:	2128
Tank Number:	4
Tank Status:	Closed/Removed
Install Date:	Not reported
Capacity (Gal):	2500
Product:	Empty
Action:	Not reported
Tank Location:	ABOVEGROUND
Tank Type:	Steel/carbon steel
Other Tank Type:	N/A
Tank Leak Detection:	0
Tank Leak Detection 2:	0
Tank Internal:	None
Tank External:	None
Tank External2:	None
Access Port (Piping):	False
Pipe Location:	None
Pipe Type:	NONE
Pipe External:	None
Pipe External2:	None
Pipe Sec. Containment:	0
Pipe Leak Detection:	0
Pipe Leak Detection 2:	0
Containment:	None
Containment2:	None
Spill Prevention:	none
Overfill:	None

STONY POINT MARINA (Continued) **U003528538**

Overfill2:	None
Dispenser:	0
Date Tested:	Not reported
Next Test:	Not reported
Close Date:	Not reported
Test Category:	Not reported
Flag:	False

Tank Id:	2129
Tank Number:	5
Tank Status:	Closed/Removed
Install Date:	Not reported
Capacity (Gal):	3000
Product:	Empty
Action:	Not reported
Tank Location:	ABOVEGROUND
Tank Type:	Steel/carbon steel
Other Tank Type:	N/A
Tank Leak Detection:	0
Tank Leak Detection 2:	0
Tank Internal:	None
Tank External:	None
Tank External2:	None
Access Port (Piping):	False
Pipe Location:	None
Pipe Type:	NONE
Pipe External:	None
Pipe External2:	None
Pipe Sec. Containment:	0
Pipe Leak Detection:	0
Pipe Leak Detection 2:	0
Containment:	None
Containment2:	None
Spill Prevention:	none
Overfill:	None
Overfill2:	None
Dispenser:	0
Date Tested:	Not reported
Next Test:	Not reported
Close Date:	Not reported
Test Category:	Not reported
Flag:	False

Tank Id:	2130
Tank Number:	6
Tank Status:	Closed/Removed
Install Date:	Not reported
Capacity (Gal):	6000
Product:	Empty
Action:	Not reported
Tank Location:	ABOVEGROUND
Tank Type:	Steel/carbon steel
Other Tank Type:	N/A
Tank Leak Detection:	0
Tank Leak Detection 2:	0
Tank Internal:	None
Tank External:	None

STONY POINT MARINA (Continued) **U003528538**

Tank External2:	None
Access Port (Piping):	False
Pipe Location:	None
Pipe Type:	NONE
Pipe External:	None
Pipe External2:	None
Pipe Sec. Containment:	0
Pipe Leak Detection:	0
Pipe Leak Detection 2:	0
Containment:	None
Containment2:	None
Spill Prevention:	none
Overfill:	None
Overfill2:	None
Dispenser:	0
Date Tested:	Not reported
Next Test:	Not reported
Close Date:	Not reported
Test Category:	Not reported
Flag:	False

Tank Id:	2131
Tank Number:	7
Tank Status:	Closed/Removed
Install Date:	Not reported
Capacity (Gal):	2000
Product:	Empty
Action:	Not reported
Tank Location:	ABOVEGROUND
Tank Type:	Steel/carbon steel
Other Tank Type:	N/A
Tank Leak Detection:	0
Tank Leak Detection 2:	0
Tank Internal:	None
Tank External:	None
Tank External2:	None
Access Port (Piping):	False
Pipe Location:	None
Pipe Type:	NONE
Pipe External:	None
Pipe External2:	None
Pipe Sec. Containment:	0
Pipe Leak Detection:	0
Pipe Leak Detection 2:	0
Containment:	None
Containment2:	None
Spill Prevention:	none
Overfill:	None
Overfill2:	None
Dispenser:	0
Date Tested:	Not reported
Next Test:	Not reported
Close Date:	Not reported
Test Category:	Not reported
Flag:	False

Tank Id:	2132

STONY POINT MARINA (Continued) **U003528538**

Tank Number:	8
Tank Status:	Closed/Removed
Install Date:	Not reported
Capacity (Gal):	500
Product:	Empty
Action:	Not reported
Tank Location:	ABOVEGROUND
Tank Type:	Steel/carbon steel
Other Tank Type:	N/A
Tank Leak Detection:	0
Tank Leak Detection 2:	0
Tank Internal:	None
Tank External:	None
Tank External2:	None
Access Port (Piping):	False
Pipe Location:	None
Pipe Type:	NONE
Pipe External:	None
Pipe External2:	None
Pipe Sec. Containment:	0
Pipe Leak Detection:	0
Pipe Leak Detection 2:	0
Containment:	None
Containment2:	None
Spill Prevention:	none
Overfill:	None
Overfill2:	None
Dispenser:	0
Date Tested:	Not reported
Next Test:	Not reported
Close Date:	Not reported
Test Category:	Not reported
Flag:	False

Tank Id:	2854
Tank Number:	4
Tank Status:	In Service
Install Date:	Not reported
Capacity (Gal):	275
Product:	Waste Oil
Action:	Not reported
Tank Location:	ABOVEGROUND
Tank Type:	Steel/carbon steel
Other Tank Type:	N/A
Tank Leak Detection:	0
Tank Leak Detection 2:	0
Tank Internal:	None
Tank External:	Painted/Asphalt Coating
Tank External2:	None
Access Port (Piping):	False
Pipe Location:	None
Pipe Type:	NONE
Pipe External:	None
Pipe External2:	None
Pipe Sec. Containment:	0
Pipe Leak Detection:	0
Pipe Leak Detection 2:	0

STONY POINT MARINA (Continued) **U003528538**

Containment:	None
Containment2:	None
Spill Prevention:	none
Overfill:	None
Overfill2:	None
Dispenser:	0
Date Tested:	Not reported
Next Test:	Not reported
Close Date:	Not reported
Test Category:	Not reported
Flag:	False

Tank Id:	4253
Tank Number:	1
Tank Status:	In Service
Install Date:	Not reported
Capacity (Gal):	1000
Product:	Diesel
Action:	Initial Listing
Tank Location:	ABOVEGROUND
Tank Type:	Steel/carbon steel
Other Tank Type:	N/A
Tank Leak Detection:	0
Tank Leak Detection 2:	0
Tank Internal:	None
Tank External:	Painted/Asphalt Coating
Tank External2:	None
Access Port (Piping):	False
Pipe Location:	None
Pipe Type:	NONE
Pipe External:	None
Pipe External2:	None
Pipe Sec. Containment:	0
Pipe Leak Detection:	0
Pipe Leak Detection 2:	0
Containment:	None
Containment2:	None
Spill Prevention:	none
Overfill:	None
Overfill2:	None
Dispenser:	0
Date Tested:	Not reported
Next Test:	Not reported
Close Date:	Not reported
Test Category:	Not reported
Flag:	False

Tank Id:	4254
Tank Number:	3
Tank Status:	In Service
Install Date:	Not reported
Capacity (Gal):	275
Product:	Unleaded Gasoline
Action:	Initial Listing
Tank Location:	ABOVEGROUND
Tank Type:	Steel/carbon steel
Other Tank Type:	N/A

STONY POINT MARINA (Continued) **U003528538**

Tank Leak Detection:	0
Tank Leak Detection 2:	0
Tank Internal:	None
Tank External:	Painted/Asphalt Coating
Tank External2:	None
Access Port (Piping):	False
Pipe Location:	None
Pipe Type:	NONE
Pipe External:	None
Pipe External2:	None
Pipe Sec. Containment:	0
Pipe Leak Detection:	0
Pipe Leak Detection 2:	0
Containment:	None
Containment2:	None
Spill Prevention:	none
Overfill:	None
Overfill2:	None
Dispenser:	0
Date Tested:	Not reported
Next Test:	Not reported
Close Date:	Not reported
Test Category:	Not reported
Flag:	False

Tank Id:	4255
Tank Number:	5
Tank Status:	In Service
Install Date:	Not reported
Capacity (Gal):	275
Product:	Used Oil (Heating
Action:	Initial Listing
Tank Location:	ABOVEGROUND
Tank Type:	Steel/carbon steel
Other Tank Type:	N/A
Tank Leak Detection:	0
Tank Leak Detection 2:	0
Tank Internal:	None
Tank External:	Painted/Asphalt Coating
Tank External2:	None
Access Port (Piping):	False
Pipe Location:	None
Pipe Type:	NONE
Pipe External:	None
Pipe External2:	None
Pipe Sec. Containment:	0
Pipe Leak Detection:	0
Pipe Leak Detection 2:	0
Containment:	None
Containment2:	None
Spill Prevention:	none
Overfill:	None
Overfill2:	None
Dispenser:	0
Date Tested:	Not reported
Next Test:	Not reported
Close Date:	Not reported

STONY POINT MARINA (Continued) **U003528538**

Test Category: Not reported
Flag: False

Click this hyperlink while viewing on your computer to access
additional NY_AST_ROCKLAND: detail in the EDR Site Report.

C8 **STONY POINT FIRE (TOTAL PAPER CO)** **SEMS-ARCHIVE** **1003864138**
44 HUDSON DRIVE **NYD982181349**
< 1/8 **STONY POINT, NY 10980**
1 ft.

Site 4 of 7 in cluster C

Relative:
Higher

Actual:
13 ft.

SEMS-ARCHIVE:
Site ID: 202401
EPA ID: NYD982181349
Federal Facility: N
NPL: Not on the NPL
Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information

Following information was gathered from the prior CERCLIS update completed in 10/2013:
Site ID: 0202401
Federal Facility: Not a Federal Facility
NPL Status: Not on the NPL
Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information

CERCLIS-NFRAP Assessment History:
Action: PRELIMINARY ASSESSMENT
Date Started: / /
Date Completed: 05/11/87
Priority Level: Low priority for further assessment

Action: DISCOVERY
Date Started: / /
Date Completed: 03/20/87
Priority Level: Not reported

Action: ARCHIVE SITE
Date Started: / /
Date Completed: 03/31/94
Priority Level: Not reported

Action: SITE INSPECTION
Date Started: 12/30/92
Date Completed: 03/31/94
Priority Level: NFRAP-Site does not qualify for the NPL based on existing information

B9 **BEACH RD MANHOLES** **NY Spills** **S111238481**
BEACH RD **N/A**
< 1/8 **STONY POINT, NY**
1 ft.

Site 2 of 2 in cluster B

Relative:
Higher

Actual:
7 ft.

SPILLS:

Facility ID:	1107141
Facility Type:	ER
DER Facility ID:	375624
Site ID:	454829
DEC Region:	3
Spill Date:	2011-09-08
Spill Number/Closed Date:	1107141 / 2011-09-12
Spill Cause:	Equipment Failure
Spill Class:	Known release with minimal potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
SWIS:	4428
Investigator:	MBMASTRO
Referred To:	Not reported
Reported to Dept:	2011-09-08
CID:	Not reported
Water Affected:	Not reported
Spill Source:	Institutional, Educational, Gov., Other
Spill Notifier:	Responsible Party
Cleanup Ceased:	Not reported
Cleanup Meets Std:	False
Last Inspection:	Not reported
Recommended Penalty:	False
UST Trust:	False
Remediation Phase:	0
Date Entered In Computer:	2011-09-08
Spill Record Last Update:	2011-09-12
Spiller Name:	JAMES OCONNOR
Spiller Company:	T/O STONY POINT
Spiller Address:	BEACH RD
Spiller City,St,Zip:	STONY POINT, NY
Spiller Company:	999
Contact Name:	JAMES OCONNOR
Contact Phone:	(845) 786-3038
DEC Memo:	"9/08/11 Spill forwarded to DOW, nfa...mm"
Remarks:	"On going over flow still active."

Material:

Site ID:	454829
Operable Unit ID:	1204981
Operable Unit:	01
Material ID:	2201803
Material Code:	0062A
Material Name:	raw sewage
Case No.:	Not reported
Material FA:	Other
Quantity:	Not reported
Units:	Not reported
Recovered:	Not reported
Resource Affected:	Not reported
Oxygenate:	Not reported

Tank Test:

C10 **TORCORT MARINA CORP** **FINDS** **1007742394**
36 HUDSON DR **ECHO** **N/A**
< 1/8 **STONY POINT, NY 10980**
1 ft.

Site 5 of 7 in cluster C

Relative: Higher

Actual: 14 ft.

FINDS:

Registry ID: 110019047654

Environmental Interest/Information System
FIS (New York - Facility Information System) is New York's Department of Environmental Conservation (DEC) information system for tracking environmental facility information found across the State.

ECHO:

Envid:	1007742394
Registry ID:	110019047654
DFR URL:	http://echo.epa.gov/detailed_facility_report?fid=110019047654

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11 **STONY POINT MARINA** **NY Spills** **S111835567**
26 HUDSON DRIVE **N/A**
< 1/8 **STONY POINT, NY**
1 ft.

Relative: Higher

Actual: 9 ft.

SPILLS:

Facility ID:	1200496
Facility Type:	ER
DER Facility ID:	417549
Site ID:	463127
DEC Region:	3
Spill Date:	2012-04-17
Spill Number/Closed Date:	1200496 / 2012-10-22
Spill Cause:	Housekeeping
Spill Class:	Known release that creates potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
SWIS:	4428
Investigator:	MXTIPPLE
Referred To:	Not reported
Reported to Dept:	2012-04-17
CID:	Not reported
Water Affected:	Not reported
Spill Source:	Commercial/Industrial
Spill Notifier:	Health Department
Cleanup Ceased:	Not reported
Cleanup Meets Std:	True
Last Inspection:	2012-04-17
Recommended Penalty:	False
UST Trust:	False
Remediation Phase:	0
Date Entered In Computer:	2012-04-17
Spill Record Last Update:	2012-10-22
Spiller Name:	ERIC PAUL
Spiller Company:	STONY POINT MARINA
Spiller Address:	26 HUDSON DRIVE
Spiller City,St,Zip:	STONY POINT, NY
Spiller Company:	999
Contact Name:	ERIC PAUL

STONY POINT MARINA (Continued) **S111835567**

Contact Phone: 845-429-0100
DEC Memo: "4-17-12: V.Mc. call to ERIC PAUL: Stony Pt. to clean up jugs of oil & then have contractor come in to remove soil. Casleton Enviro. to handle clean up. 4/30/12: Email update received from RCDOH PBS: >>> Sandy Braun -BraunS@co.rockland.ny.us> 4/17/2012 3:09 PM >>> I was on-site and called this in. Poor housekeeping at unregistered PBS (Inactive) for some time. Inspection revealed 2425 total gallons Petroleum being stored . . . . Sandy Braun jod 7/11/12 Spoke with Wayne Quartz 914-755-6125 Marina's owner. Wayne invited DEC/DOH visit to clear up any issues, & make sure the cleanup has been successfully completed. A site visitis scheduled for July 19, 2012. mt July 19 site mtg. Owner to remove tank, shed and contaminated soil. mt September 12,2012 Conrad Geo retained to oversee cleanup. awaiting documentation. mt 10/22/12 Report received, NFA, meets standards. mt"
Remarks: "275 gal agt waste oil tank in shed/poor housekeeping, no containment, clean up pending"

Material:
Site ID: 463127
Operable Unit ID: 1213227
Operable Unit: 01
Material ID: 2211147
Material Code: 0022
Material Name: waste oil/used oil
Case No.: Not reported
Material FA: Petroleum
Quantity: Not reported
Units: Not reported
Recovered: Not reported
Resource Affected: Not reported
Oxygenate: Not reported

Tank Test:

C12 **TOTAL PAPERS** **NY Spills** **S103568585**
HUDSON DRIVE **N/A**
< 1/8 **STONY POINT, NY**
1 ft.

Site 6 of 7 in cluster C

Relative: Higher
Actual: 9 ft.

SPILLS:
Facility ID: 8606396
Facility Type: ER
DER Facility ID: 127048
Site ID: 149349
DEC Region: 3
Spill Date: 1987-01-14
Spill Number/Closed Date: 8606396 / 1987-01-17
Spill Cause: Other
Spill Class: Not reported
SWIS: 4428
Investigator: SLINGERLAND
Referred To: Not reported
Reported to Dept: 1987-01-14
CID: Not reported
Water Affected: HUDSON RIVER
Spill Source: Commercial/Industrial

TOTAL PAPERS (Continued) **S103568585**

Spill Notifier:	Health Department
Cleanup Ceased:	1987-01-17
Cleanup Meets Std:	True
Last Inspection:	1987-01-17
Recommended Penalty:	False
UST Trust:	False
Remediation Phase:	0
Date Entered In Computer:	2003-12-02
Spill Record Last Update:	2003-12-02
Spiller Name:	Not reported
Spiller Company:	TOTAL PAPERS
Spiller Address:	SAME
Spiller City,St,Zip:	ZZ
Spiller Company:	001
Contact Name:	Not reported
Contact Phone:	Not reported
DEC Memo:	""
Remarks:	"FIRE IN CHEMICAL STORAGE BUILDING"

Material:

Site ID:	149349
Operable Unit ID:	903178
Operable Unit:	01
Material ID:	475520
Material Code:	0066A
Material Name:	unknown petroleum
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	2000.00
Units:	Not reported
Recovered:	.00
Resource Affected:	Not reported
Oxygenate:	Not reported

Tank Test:

C13 **LIGHTGUIDE COMMUNICATIONS CABLE** **FINDS** **1007792915**
HUDSON R CROSSING **ECHO** **N/A**
< 1/8 **STONY POINT, NY 10988**
1 ft.

Site 7 of 7 in cluster C

Relative: Higher

Actual: 9 ft.

FINDS:

Registry ID: 110019554178

Environmental Interest/Information System
FIS (New York - Facility Information System) is New York's Department of Environmental Conservation (DEC) information system for tracking environmental facility information found across the State.

ECHO:

Envid:	1007792915
Registry ID:	110019554178
DFR URL:	http://echo.epa.gov/detailed_facility_report?fid=110019554178

14 SW < 1/8 0.023 mi. 123 ft. | **STONY POINT MARINA**
15 HUDSON DRIVE
STONY POINT, NY | **NY Spills** | **S111237544**
N/A

Relative: Higher

Actual: 8 ft.

SPILLS:

Facility ID:	1106074
Facility Type:	ER
DER Facility ID:	408361
Site ID:	453750
DEC Region:	3
Spill Date:	2011-08-28
Spill Number/Closed Date:	1106074 / 2011-10-05
Spill Cause:	Other
Spill Class:	Known release that creates potential for fire or hazard. DEC Response. Unable/unwilling Responsible Party. Corrective action taken. (ISR)
SWIS:	4428
Investigator:	JKOMARA
Referred To:	Not reported
Reported to Dept:	2011-08-28
CID:	Not reported
Water Affected:	HUDSON RIVER
Spill Source:	Commercial/Industrial
Spill Notifier:	Local Agency
Cleanup Ceased:	Not reported
Cleanup Meets Std:	False
Last Inspection:	2011-08-31
Recommended Penalty:	False
UST Trust:	False
Remediation Phase:	0
Date Entered In Computer:	2011-08-28
Spill Record Last Update:	2011-10-05
Spiller Name:	ROCKLAND CO SO
Spiller Company:	MARINA
Spiller Address:	15 HUDSON DR
Spiller City,St,Zip:	STONY POINT, NY
Spiller Company:	999
Contact Name:	ROCKLAND CO SO
Contact Phone:	(845) 364-8600
DEC Memo:	"8/29/11 Some amount of oil leaked from an AST to soil and river. Dan Greely states owner is being uncooperative and is requesting an ECO. Officer Nick DeSatella responded. Nick says oil to river is gone and unrecoverable. Owner cooperating and has hired Recovery Environmental to take care of soil and put some boom out (some sheen seeping to river). Nick says two crews are responding, but they are currently held up due to a water main break in town. Contractor contact is Todd Hassle, 973/896-6185. Returned call to Petty Officer Dana Rice with details. jc 8/29/11: Dan Sullivan of RCDOH states he and Sandy Braun are responding to this spill location later today. jod 10/5/11 RCDOH SPILL CLOSURE UPDATE Per phone conversations with both ENCON Officers Galvin & Desotelle. Tank was holding small amount of fuel oil. Tank was retrieved by owner and moved into a garage. Recommend to close spill. NFA. No PBS. No other documentation. Spill file located in 2011 RCDOH Spill Log. Dan Sullivan HAZMAT / PBS Rockland County Department of Health NFA JO'M"
Remarks:	"FUEL OIL TANK PARTIALLY SPILLED INTO HUDSON RIVER. CLEANUP PENDING COUNTY HAZMAT ON SCENE AT THIS TIME DANA RICE FROM THE USCG CALLED STATINGT THAT THEY CAN NOT GET TO THIS SPILL AND REQUESTED THAT WE

STONY POINT MARINA (Continued) **S111237544**

HANDLE IT. PHONE - 718-354-4121. SPOKE WITH JOHN WHO STATES THAT HE BELIEVES WE ARE ALREADY HANDLING IT."

Material:

Site ID:	453750
Operable Unit ID:	1203906
Operable Unit:	01
Material ID:	2200640
Material Code:	0001A
Material Name:	#2 fuel oil
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	500.00
Units:	Gallons
Recovered:	Not reported
Resource Affected:	Not reported
Oxygenate:	Not reported

Tank Test:

D15 **EDR Hist Auto** **1015636492**
SW **8 HUDSON DR** **N/A**
< 1/8 **STONY POINT, NY 10980**
0.080 mi.
425 ft. **Site 1 of 5 in cluster D**

Relative:
Higher

Actual:
14 ft.

EDR Historical Auto Stations:

Name:	RESIDENTIAL TIRE & AUTO SERVICE
Year:	2007
Address:	8 HUDSON DR

D16 **RESIDENTIAL AUTOMOTIVE INC.** **AST** **A100136511**
SW **8 HUDSON DRIVE** **N/A**
< 1/8 **STONY POINT, NY 10980**
0.080 mi.
425 ft. **Site 2 of 5 in cluster D**

Relative:
Higher

Actual:
14 ft.

ROCKLAND CO. AST:

Facility:

Facility ID:	3-990845
CBS Number:	Not reported
SPDES Number:	Not reported
Old PBSNO:	Not reported
Federal ID:	13-3791408
Facility Type:	OTHER
Section:	Not reported
Block:	Not reported
Lot:	Not reported
Site Group:	STONY POINT
Group:	1
SWIS Code:	3928
Facility Telephone:	(914) 429-5744
Expiration:	12/27/2001
Ren Required:	Not reported
Fee Waiver:	False

RESIDENTIAL AUTOMOTIVE INC. (Continued) **A100136511**

Date Created:	Not reported
Emergency:	JOHN TOOMA
Emergency Telephone:	(914) 362-4429
Operator Name:	JOHN TOOMA
Owner Name:	MARY O'CONNELL
Owner Address:	43 MAPLE DRIVE
Owner Address 2:	Not reported
Owner City,St,Zip:	STONY POINT, NY 10980
Owner Tel:	(914) 942-0079
Owner Type:	Corporate/Commercial
Mail Name:	RESIDENTIAL AUTOMOTIVE
Mail Address:	8 HUDSON DRIVE
Mail Address 2:	Not reported
Mail City,St,Zip:	STONY POINT, NY 10980
Mail Person:	GINA
Mail Phone:	(914) 429-5744
Fax:	Not reported

Tank Id:	2636
Tank Number:	1
Tank Status:	Closed/Removed
Install Date:	Not reported
Capacity (Gal):	275
Product:	Waste Oil
Action:	Not reported
Tank Location:	ABOVEGROUND
Tank Type:	Steel/carbon steel
Other Tank Type:	N/A
Tank Leak Detection:	0
Tank Leak Detection 2:	0
Tank Internal:	None
Tank External:	None
Tank External2:	None
Access Port (Piping):	False
Pipe Location:	None
Pipe Type:	NONE
Pipe External:	None
Pipe External2:	None
Pipe Sec. Containment:	0
Pipe Leak Detection:	0
Pipe Leak Detection 2:	0
Containment:	None
Containment2:	None
Spill Prevention:	none
Overfill:	None
Overfill2:	None
Dispenser:	Suction
Date Tested:	Not reported
Next Test:	Not reported
Close Date:	Not reported
Test Category:	Not reported
Flag:	False

D17 SW < 1/8 0.108 mi. 572 ft. | **GULF 9W TOMKINS COVE**
9W TOMKINS COVE
STONY POINT, NY | **NY Spills** | **S102103976**
N/A

Site 3 of 5 in cluster D

Relative: Higher

Actual: 19 ft.

SPILLS:

Facility ID:	8900804
Facility Type:	ER
DER Facility ID:	203160
Site ID:	247422
DEC Region:	3
Spill Date:	1989-04-25
Spill Number/Closed Date:	8900804 / 2004-12-26
Spill Cause:	Unknown
Spill Class:	Known release with minimal potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
SWIS:	4428
Investigator:	tdghiosa
Referred To:	Not reported
Reported to Dept:	1989-04-26
CID:	Not reported
Water Affected:	Not reported
Spill Source:	Gasoline Station or other PBS Facility
Spill Notifier:	Other
Cleanup Ceased:	Not reported
Cleanup Meets Std:	False
Last Inspection:	Not reported
Recommended Penalty:	False
UST Trust:	True
Remediation Phase:	0
Date Entered In Computer:	1989-05-01
Spill Record Last Update:	2004-12-26
Spiller Name:	Not reported
Spiller Company:	Not reported
Spiller Address:	Not reported
Spiller City,St,Zip:	***Update***, ZZ
Spiller Company:	001
Contact Name:	Not reported
Contact Phone:	Not reported
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was GHIOSAY 12/26/2004 this matter being handled under spill 89-04983--close "
Remarks:	"POSSIBLE UST LEAK. REFERRED WALTER MACALPINTO CONTACT KATHY QUINN-ROCKLAND COUNTY HEALTH DEPARTMENT."

Material:

Site ID:	247422
Operable Unit ID:	927371
Operable Unit:	01
Material ID:	452128
Material Code:	0009
Material Name:	gasoline
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	.00
Units:	Pounds
Recovered:	.00
Resource Affected:	Not reported
Oxygenate:	Not reported

GULF 9W TOMKINS COVE (Continued) **S102103976**

Tank Test:

D18 SSW < 1/8 0.109 mi. 578 ft. **WILLOW COVE 2 HUDSON DRIVE STONY POINT, NY** **NY Spills** **S102106213 N/A**

Site 4 of 5 in cluster D

Relative: Higher

Actual: 18 ft.

SPILLS:

Facility ID:	8709209
Facility Type:	ER
DER Facility ID:	144544
Site ID:	275815
DEC Region:	3
Spill Date:	1988-01-26
Spill Number/Closed Date:	8709209 / 1988-01-26
Spill Cause:	Unknown
Spill Class:	Not reported
SWIS:	4428
Investigator:	DVWEHRFR
Referred To:	Not reported
Reported to Dept:	1988-01-29
CID:	Not reported
Water Affected:	HUDSON RIVER
Spill Source:	Unknown
Spill Notifier:	Affected Persons
Cleanup Ceased:	1988-01-26
Cleanup Meets Std:	True
Last Inspection:	1988-03-30
Recommended Penalty:	False
UST Trust:	False
Remediation Phase:	0
Date Entered In Computer:	1988-01-29
Spill Record Last Update:	1988-04-06
Spiller Name:	Not reported
Spiller Company:	UNK.
Spiller Address:	HENRY CORTS
Spiller City,St,Zip:	WILLOW COVE MARINA, ZZ
Spiller Company:	001
Contact Name:	Not reported
Contact Phone:	Not reported
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was WEHRFRITZ / / : REFERRED TO RCHD, KATHY QUINN. 03/30/88: RCHD CLOSED OUT. "
Remarks:	"PRODUCT MAY HAVE COME FROM STORM DRAIN THAT DISCHARGES INTO HUDSON RIVER. PRODUCT HAS DISPERSED BUT RESIDUE HAS EFFECTED SWANS & BOATS."

Material:

Site ID:	275815
Operable Unit ID:	914312
Operable Unit:	01
Material ID:	464541
Material Code:	0066A
Material Name:	unknown petroleum
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	.00

WILLOW COVE (Continued) **S102106213**

Units:	Gallons
Recovered:	.00
Resource Affected:	Not reported
Oxygenate:	Not reported

Tank Test:

Facility ID:	8607989
Facility Type:	ER
DER Facility ID:	144544
Site ID:	171752
DEC Region:	3
Spill Date:	1987-03-28
Spill Number/Closed Date:	8607989 / 1987-03-31
Spill Cause:	Unknown
Spill Class:	Not reported
SWIS:	4428
Investigator:	DVWEHRFR
Referred To:	Not reported
Reported to Dept:	1987-03-28
CID:	Not reported
Water Affected:	HUDSON RIVER
Spill Source:	Unknown
Spill Notifier:	Federal Government
Cleanup Ceased:	1987-03-31
Cleanup Meets Std:	True
Last Inspection:	1987-03-31
Recommended Penalty:	False
UST Trust:	False
Remediation Phase:	0
Date Entered In Computer:	1987-03-31
Spill Record Last Update:	1987-04-13
Spiller Name:	Not reported
Spiller Company:	UNKNOWN
Spiller Address:	Not reported
Spiller City,St,Zip:	NY
Spiller Company:	999
Contact Name:	Not reported
Contact Phone:	Not reported
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was WEHRFRITZ / / : 3/28/87-ECO DIDEON INVESTIGATING-WILL GET BACK TO DOW. / / : 3/31/87-DISSIPATED-NFA. "
Remarks:	"SHEEN NOTICED ON RIVER"

Material:

Site ID:	171752
Operable Unit ID:	904558
Operable Unit:	01
Material ID:	473478
Material Code:	0009
Material Name:	gasoline
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	.00
Units:	Not reported
Recovered:	.00

WILLOW COVE (Continued) **S102106213**

Resource Affected: Not reported
Oxygenate: Not reported

Tank Test:

D19
SSW
< 1/8
0.112 mi.
592 ft.

1 HUDSON DR **EDR Hist Auto** **1015115467**
STONY POINT, NY 10980 **N/A**

Site 5 of 5 in cluster D

Relative:
Higher

Actual:
16 ft.

EDR Historical Auto Stations:
Name: RESIDENTIAL AUTOMOTICES INC
Year: 2003
Address: 1 HUDSON DR

20
NNW
< 1/8
0.114 mi.
601 ft.

STATE OWNED HISTORIC SITE **LTANKS** **S110140374**
40 BATTLEFIELD RD **NY Spills** **N/A**
STONY POINT, NY

Relative:
Higher

Actual:
47 ft.

LTANKS:
Site ID: 426768
Spill Number/Closed Date: 0913800 / 2010-04-08
Spill Date: 2010-03-29
Spill Cause: Tank Test Failure
Spill Source: Institutional, Educational, Gov., Other
Spill Class: Known release with minimal potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
Cleanup Ceased: Not reported
Cleanup Meets Standard: False
SWIS: 4428
Investigator: JKOMARA
Referred To: Not reported
Reported to Dept: 2010-03-29
CID: Not reported
Water Affected: Not reported
Spill Notifier: Tank Tester
Last Inspection: Not reported
Recommended Penalty: False
UST Involvement: False
Remediation Phase: 0
Date Entered In Computer: 2010-03-29
Spill Record Last Update: 2010-04-08
Spiller Name: Not reported
Spiller Company: UNKNOWN
Spiller Address: Not reported
Spiller City,St,Zip: NY
Spiller County: 999
Spiller Contact: TRI STATE ENVIRO
Spiller Phone: (914) 592-3385
Spiller Extention: Not reported
DEC Region: 3
DER Facility ID: 373918

STATE OWNED HISTORIC SITE (Continued) **S110140374**

DEC Memo: "3/25/10 - This second spill number called on test failure. Refer to Spill No. 09-12136. Administratively closed. NFA. KAB 3/30/10: Spill re-opened. This is a separate issue from Spill 0912136 which was reported as a tank overfill. Cathy Quinn has already been on site. jod 4/8/10 mLIne faolure Closed refer to 0912136 JO'M"
Remarks: "Failed line test/should be old # 0912136"

Material:
Site ID: 426768
Operable Unit ID: 1182443
Operable Unit: 01
Material ID: 2176629
Material Code: 0001A
Material Name: #2 fuel oil
Case No.: Not reported
Material FA: Petroleum
Quantity: Not reported
Units: Gallons
Recovered: Not reported
Resource Affected: Not reported
Oxygenate: Not reported

Tank Test:

SPILLS:
Facility ID: 0912136
Facility Type: ER
DER Facility ID: 373918
Site ID: 425008
DEC Region: 3
Spill Date: 2010-02-19
Spill Number/Closed Date: 0912136 / 2010-10-07
Spill Cause: Unknown
Spill Class: Known release that creates potential for fire or hazard. DEC Response. Unable/unwilling Responsible Party. Corrective action taken. (ISR)
SWIS: 4428
Investigator: JKOMARA
Referred To: Not reported
Reported to Dept: 2010-02-19
CID: Not reported
Water Affected: Not reported
Spill Source: Institutional, Educational, Gov., Other
Spill Notifier: Local Agency
Cleanup Ceased: Not reported
Cleanup Meets Std: False
Last Inspection: 2010-02-24
Recommended Penalty: False
UST Trust: False
Remediation Phase: 0
Date Entered In Computer: 2010-02-19
Spill Record Last Update: 2010-10-07
Spiller Name: Not reported
Spiller Company: PANCO FUEL OIL
Spiller Address: Not reported
Spiller City,St,Zip: NY

STATE OWNED HISTORIC SITE (Continued) **S110140374**

Spiller Company: 999
Contact Name: DAN UMLAS
Contact Phone: (845) 786-2701 231
DEC Memo: "2/19/10 It appears as though the oil company, PANCO, overfilled the tank on 2/12/10 but was not discovered until today. The home is vacant. The tank is above ground and there are stains from the oil running down the outside of the tank. The oil has seeped thru the foundation and into a crawl space. The Park Commission is contacting the oil company to have them do the clean up and if they refuse Parks will hire their own contractor...mm 2/24/10 I was contacted by Cathy Quinn from the site. She states she was told I had responded to this spill and had been on site already - which was not the case. She states Tri-State Environmental has been on site to remediate and that Panco Fuel is denying responsibility. Unknown what further action will be taken. Cathy will follow up with John O'Mara. jod 3/30/10: Tank was tested by Northeast Tank Testing for Tri-State. Line failure was reported as spill 0913800. jod 4/8/10 Tristate is scheduled to start cleanup on 4/9/10 JO'M 10/7/10 Dan After discussion with Cathy Quinn and review of your submittal we are closing the spill. If an order still remains after time we retain the right to reopen the spill. John K O'Mara. P.E. NYSDEC Spills >>> Umlas, Daniel (PAL) 9/23/2010 1:44 PM >>> John, I still haven't received a response to my letter. Have you discussed with Cathy? Tristate is awaiting the word to backfill and remove the stockpile. Please advise. Thank you. Julia, Is there still a fuel oil odor in the crawl space or above? There was no odor following completion of the work by APECCO. Sincerely, Dan Umlas PIPC / DESIGN & CONSTRUCTION (845) 786-2701 x231 JO'M"
Remarks: "tank full - soil and inside of crawl space noticed with stain and odor - tank does not appear to be leaking - REQUEST CALL BACK FOR FURTHER GUIDANCE"

Material:
Site ID: 425008
Operable Unit ID: 1180744
Operable Unit: 01
Material ID: 2174734
Material Code: 0001A
Material Name: #2 fuel oil
Case No.: Not reported
Material FA: Petroleum
Quantity: Not reported
Units: Gallons
Recovered: Not reported
Resource Affected: Not reported
Oxygenate: Not reported

Tank Test:

21 North < 1/8 0.119 mi. 627 ft. | **STONY POINT BATTLEFIELD**
44 BATTELFIELD RD
STONY POINT, NY | **NY Spills** | **S106010855**
N/A

Relative: Higher

Actual: 68 ft.

SPILLS:

Facility ID:	0210567
Facility Type:	ER
DER Facility ID:	197864
Site ID:	240593
DEC Region:	3
Spill Date:	2003-01-21
Spill Number/Closed Date:	0210567 / 2003-01-21
Spill Cause:	Housekeeping
Spill Class:	Known release with minimal potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
SWIS:	4428
Investigator:	RCHD
Referred To:	Rockland Cnty Health Dept
Reported to Dept:	2003-01-21
CID:	205
Water Affected:	Not reported
Spill Source:	Commercial Vehicle
Spill Notifier:	Affected Persons
Cleanup Ceased:	Not reported
Cleanup Meets Std:	True
Last Inspection:	Not reported
Recommended Penalty:	False
UST Trust:	False
Remediation Phase:	0
Date Entered In Computer:	2003-01-21
Spill Record Last Update:	2003-01-27
Spiller Name:	MIKE MARINO
Spiller Company:	CHIEF ENERGY
Spiller Address:	918 MACDONALD AVE
Spiller City,St,Zip:	BROOKLYN, NY 11218-
Spiller Company:	001
Contact Name:	CALLER
Contact Phone:	Not reported
DEC Memo:	""
Remarks:	"caller reports contaminated soil due to poor standards of supply company."

Material:

Site ID:	240593
Operable Unit ID:	861747
Operable Unit:	01
Material ID:	513949
Material Code:	0001A
Material Name:	#2 fuel oil
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	.00
Units:	Gallons
Recovered:	.00
Resource Affected:	Not reported
Oxygenate:	Not reported

STONY POINT BATTLEFIELD (Continued) **S106010855**

Tank Test:

22
NW
1/8-1/4
0.134 mi.
708 ft.

TIM KREIDER
1 LINCOLN OVAL
STONY POINT, NY 10980

UST **U003732933**
N/A

Relative:
Higher

Actual:
96 ft.

ROCKLAND CO. UST:

Facility:

Facility ID:	3-990922
CBS Number:	Not reported
SPDES Number:	Not reported
Old PBS Number:	Not reported
Federal ID:	Not reported
Facility Type:	PRIVATE RESIDENCE
Section:	Not reported
Block:	Not reported
Lot:	Not reported
Site Group:	STONY POINT
Group:	1
SWIS Code:	3928
Facility Telephone:	(914) 786-5404
EMail:	Not reported
Fax Number:	Not reported
Expiration:	12/27/2001
Ren Required:	Not reported
Fee Waiver:	False
Date Created:	Not reported
Emergency:	TIM KREIDER
Emergency Telephone:	(914) 786-5404
Operator Name:	TIM KREIDER
Owner Name:	TIM KREIDER
Owner Address:	1 LINCOLN OVAL
Owner Address 2:	Not reported
Owner City,St,Zip:	STONY POINT, NY 10980
Owner Tel:	(914) 786-5404
Owner Type:	Private Resident
Mail Name:	CASTLTON EXCAVATING, INC.
Mail Address:	251 SECOND STREET
Mail Address 2:	Not reported
Mail City,St,Zip:	SADDLE BROOK, NJ 07663
Mail Person:	KIMBERLY WALTON
Mail Phone:	(973) 772-9030

Tank Id:	3115
Tank Number:	1
Tank Status:	Closed-Removed
Install Date:	Not reported
Capacity (Gal):	2000
Product:	UNLEADED GASOLINE
Action:	Not reported
Tank Location:	UNDERGROUND
Tank Type:	Steel/carbon steel
Other Tank Type:	N/A
Tank Leak Detection:	0

TIM KREIDER (Continued) **U003732933**

Tank Leak Detection 2:	0
Tank Internal:	None
Tank External:	None
Tank External2:	None
Access Port (Piping):	False
Pipe Location:	None
Pipe Type:	NONE
Pipe External:	None
Pipe External2:	None
Pipe Sec Containment:	0
Containment:	None
Containment2:	None
Spill Prevention:	none
Overfill:	None
Overfill2:	None
Dispenser:	Suction
Date Tested:	Not reported
Next Test:	Not reported
Close Date:	Not reported
Test Category:	A

23
SSW
1/8-1/4
0.167 mi.
880 ft.

BELLE HARBOR LANDING **UST** **U004083181**
80 BEACH ROAD **N/A**
STONY POINT, NY 10980

Relative:
Higher

Actual:
11 ft.

ROCKLAND CO. UST:

Facility:

Facility ID:	3-990952
CBS Number:	Not reported
SPDES Number:	Not reported
Old PBS Number:	Not reported
Federal ID:	13-3997697
Facility Type:	OTHER
Section:	15
Block:	20-1-9
Lot:	Not reported
Site Group:	Not reported
Group:	Not reported
SWIS Code:	Not reported
Facility Telephone:	(845) 786-5823
EMail:	Not reported
Fax Number:	Not reported
Expiration:	Not reported
Ren Required:	Not reported
Fee Waiver:	False
Date Created:	5/7/2007 10:16:49 AM
Emergency:	FRANK LACOPARRA
Emergency Telephone:	(914) 447-1888
Operator Name:	FRANK LACOPARRA
Owner Name:	FRANK LACOPARRA
Owner Address:	35 HENDERSON AVENUE
Owner Address 2:	Not reported
Owner City,St,Zip:	YONKERS, NY 10704
Owner Tel:	(845) 786-5823
Owner Type:	Corporate/Commercial

BELLE HARBOR LANDING (Continued) **U004083181**

Mail Name:	BELLE HARBOR LANDING
Mail Address:	80 BEACH ROAD
Mail Address 2:	Not reported
Mail City,St,Zip:	STONY POINT, NY 10980
Mail Person:	RANK LACOPARRA
Mail Phone:	(845) 786-5823
Tank Id:	3706
Tank Number:	1
Tank Status:	Closed-Removed
Install Date:	Not reported
Capacity (Gal):	1500
Product:	UNLEADED GASOLINE
Action:	Register Existing Tank
Tank Location:	UNDERGROUND
Tank Type:	Steel/carbon steel
Other Tank Type:	N/A
Tank Leak Detection:	0
Tank Leak Detection 2:	0
Tank Internal:	None
Tank External:	None
Tank External2:	None
Access Port (Piping):	False
Pipe Location:	Underground
Pipe Type:	GALVANIZED STEEL
Pipe External:	None
Pipe External2:	None
Pipe Sec Containment:	0
Containment:	None
Containment2:	None
Spill Prevention:	none
Overfill:	None
Overfill2:	None
Dispenser:	Suction
Date Tested:	Not reported
Next Test:	Not reported
Close Date:	1/1/2006
Test Category:	Not reported
Tank Id:	3707
Tank Number:	2
Tank Status:	Closed-Removed
Install Date:	Not reported
Capacity (Gal):	2000
Product:	UNLEADED GASOLINE
Action:	Register Existing Tank
Tank Location:	UNDERGROUND
Tank Type:	Steel/carbon steel
Other Tank Type:	N/A
Tank Leak Detection:	0
Tank Leak Detection 2:	0
Tank Internal:	None
Tank External:	None
Tank External2:	None
Access Port (Piping):	False
Pipe Location:	Underground
Pipe Type:	GALVANIZED STEEL

BELLE HARBOR LANDING (Continued) **U004083181**

Pipe External:	None
Pipe External2:	None
Pipe Sec Containment:	0
Containment:	None
Containment2:	None
Spill Prevention:	none
Overfill:	None
Overfill2:	None
Dispenser:	Suction
Date Tested:	Not reported
Next Test:	Not reported
Close Date:	1/1/2006
Test Category:	Not reported

24
NNE
1/8-1/4
0.175 mi.
923 ft.

STONY POINT BATTLEFIELD **LTANKS** **S106868841**
46 BATTLEFIELD ROAD **N/A**
STONY POINT, NY

Relative:
Higher

Actual:
79 ft.

LTANKS:

Site ID:	338433
Spill Number/Closed Date:	0412830 / 2005-11-28
Spill Date:	2005-03-08
Spill Cause:	Tank Failure
Spill Source:	Commercial/Industrial
Spill Class:	Known release that creates potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
Cleanup Ceased:	Not reported
Cleanup Meets Standard:	True
SWIS:	4428
Investigator:	JBODee
Referred To:	RCDOH
Reported to Dept:	2005-03-08
CID:	410
Water Affected:	Not reported
Spill Notifier:	Other
Last Inspection:	Not reported
Recommended Penalty:	False
UST Involvement:	False
Remediation Phase:	0
Date Entered In Computer:	2005-03-08
Spill Record Last Update:	2005-11-28
Spiller Name:	Not reported
Spiller Company:	Not reported
Spiller Address:	40 ELDRIDGE AV
Spiller City,St,Zip:	STATEN ISLAND, NY
Spiller County:	001
Spiller Contact:	JULIA WARGAR
Spiller Phone:	(845) 786-2521
Spiller Extention:	Not reported
DEC Region:	3
DER Facility ID:	273775
DEC Memo:	"November 28, 2005: CLEAN UP COMPLETED. TANK CLOSURE REPORT SUBMITTED TO FRANK GALILEY OF THE ROCKLAND COUNTY HEALTH DEPT. NO FURTHER ACTION IS REQUIRED AT THIS TIME. jod"
Remarks:	"soaked into ground caused by hole in the tank on bottom unknown cause tank is about 4 years old unknown if water is impacted"

STONY POINT BATTLEFIELD (Continued) **S106868841**

Material:

Site ID:	338433
Operable Unit ID:	1100379
Operable Unit:	01
Material ID:	580665
Material Code:	0001A
Material Name:	#2 fuel oil
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	200.00
Units:	Gallons
Recovered:	.00
Resource Affected:	Not reported
Oxygenate:	Not reported

Tank Test:

25
WSW
1/4-1/2
0.402 mi.
2121 ft.

T/STONY POINT GARAGE **LTANKS** **S100137453**
HICKSEN ROAD **N/A**
CROTON-ON-HUDSON, NY

Relative:
Higher

Actual:
99 ft.

LTANKS:

Site ID:	137971
Spill Number/Closed Date:	8809444 / 1989-03-14
Spill Date:	1989-03-06
Spill Cause:	Tank Test Failure
Spill Source:	Institutional, Educational, Gov., Other
Spill Class:	Possible release with minimal potential for fire or hazard or Known release with no damage. DEC Response. Willing Responsible Party. Corrective action taken.
Cleanup Ceased:	1989-03-14
Cleanup Meets Standard:	True
SWIS:	6022
Investigator:	tdghiosa
Referred To:	Not reported
Reported to Dept:	1989-03-07
CID:	Not reported
Water Affected:	Not reported
Spill Notifier:	Tank Tester
Last Inspection:	Not reported
Recommended Penalty:	False
UST Involvement:	True
Remediation Phase:	0
Date Entered In Computer:	1989-03-08
Spill Record Last Update:	1989-05-09
Spiller Name:	Not reported
Spiller Company:	T/STONY POINT GARAGE
Spiller Address:	ROSE ST.
Spiller City,St,Zip:	STONY POINT, NY
Spiller County:	001
Spiller Contact:	Not reported
Spiller Phone:	Not reported
Spiller Extention:	Not reported
DEC Region:	3

T/STONY POINT GARAGE (Continued) **S100137453**

DER Facility ID: 300556
DEC Memo: "Prior to Sept, 2004 data translation this spill Lead_DEC Field was T. GHIOSAY 05/09/89: RETEST PASSED. "
Remarks: "AIR VAPOR PROBLEM. TO EXCAVATE AND RETEST"

Material:
Site ID: 137971
Operable Unit ID: 925694
Operable Unit: 01
Material ID: 454179
Material Code: 0009
Material Name: gasoline
Case No.: Not reported
Material FA: Petroleum
Quantity: .00
Units: Gallons
Recovered: .00
Resource Affected: Not reported
Oxygenate: Not reported

Tank Test:
Site ID: 137971
Spill Tank Test: 1535228
Tank Number: Not reported
Tank Size: 0
Test Method: 00
Leak Rate: .00
Gross Fail: Not reported
Modified By: Spills
Last Modified: Not reported
Test Method: Unknown

26
NNW
1/4-1/2
0.409 mi.
2161 ft.

STONY POINT LANDFILL **SHWS** **S105972536**
NORTH OF BATTLEFIELD MONUMENT - EAST OF RT. 9W **DEL SHWS** **N/A**
STONY POINT, NY 10980

Relative:
Higher

Actual:
89 ft.

SHWS:
Program: HW
Site Code: 56030
Classification: N
Region: 3
Acres: 17
HW Code: 344008
Record Add: 11/18/1999
Record Upd: 12/16/2003
Updated By: kstang
Site Description: Municipal landfill adjacent to tributaries of Hudson River. Closed in 1971. Phase I investigation under way
Env Problem: Adjacent to tribs. to Hudson. No sampling has been done.
Health Problem: Not reported
Dump: Not reported
Structure: Not reported
Lagoon: Not reported
Landfill: Not reported

STONY POINT LANDFILL (Continued) **S105972536**

Pond:	Not reported
Disp Start:	Not reported
Disp Term:	Not reported
Lat/Long:	Not reported
Dell:	Not reported
Record Add:	Not reported
Record Upd:	Not reported
Updated By:	Not reported
Own Op:	Disp. Owner
Sub Type:	NNN
Owner Name:	Not reported
Owner Company:	TOWN OF STONY POINT
Owner Address:	Not reported
Owner Addr2:	Not reported
Owner City,St,Zip:	NY
Owner Country:	Unknown
Own Op:	Owner
Sub Type:	C01
Owner Name:	Not reported
Owner Company:	Town of Stony Point
Owner Address:	TOWN HALL, MAIN STREET
Owner Addr2:	Not reported
Owner City,St,Zip:	STONY POINT, NY 10980
Owner Country:	United States of America
HW Code:	Not reported
Waste Type:	Not reported
Waste Quantity:	Not reported
Waste Code:	Not reported
Crossref ID:	Not reported
Cross Ref Type Code:	Not reported
Cross Ref Type:	Not reported
Record Added Date:	Not reported
Record Updated:	Not reported
Updated By:	Not reported

DEL SHWS:

Year:	Not reported
Site Code Id:	344008
Site Classification:	D1
Region:	3
Epa Id Number:	NYD980509202
Site Type - Dump:	No
Site Type - Structure:	No
Site Type - Lagoon:	No
Site Type - Landfill:	No
Site Type - Treat Pond:	No
Site Size (Acres):	17 Acres
Site Size Comment:	Not reported
Period Assoc/HW Start:	Not reported
Period Assoc/HW End:	Not reported
Lat/Long:	41 14’ 41" / 73 58’ 49"
Lat/Long Decimal:	0.00000 / 0.00000
Lat/Long (dms):	0 0 0 / 0 0 0
Hazardous Waste Code:	Not reported
Hazard Waste Disposed:	Not reported
Quantity:	Not reported
Air Data Available:	No

STONY POINT LANDFILL (Continued) **S105972536**

SW Std Contravention:	No
GW Std Contravention:	No
Soil Type:	Not reported
Sediment Data Available:	No
GW Std Contravention:	No
DW Std Contravention:	No
SW Std Contravention:	No
Air Stand Contraventions:	No
Legal Action Type:	Not reported
State Legal Action:	No
Federal Legal Action:	No
Enforce Status Code:	Not reported
Remedial Act Proposed:	No
Rem Act Under Design:	No
Rem Act In Progress:	No
Rem Act Completed:	No
Remedial Action Type:	Not reported
Soil Type:	Not reported
Depth To Groundwater:	Not reported
Owner Name:	Town of Stony Point
Owner Address:	Town Hall, Main Street
Owner City,St,Zip:	Stony Point, NY 10980
Owner Phone:	Not reported
Owner Contact Name:	Not reported
Owner During Disposal:	Town of Stony Point
Owner During Use:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City,St,Zip:	Not reported
Operator Phone:	Not reported
Operator Contact Name:	Not reported
Oper During Disposal:	Not reported
Site Type:	Dump
HW Disposal Period:	From: To: 1971
Analytical Data Available:	Not reported
Applicable Std Exceeded:	Not reported
Geotech Info:	unknown
Depth To Groundwater:	Not reported
Status:	Not reported
Nature Of Action:	Not reported
Env Prob Assessment:	Not reported
Site Description:	Municipal landfill adjacent to tributaries of Hudson River. Closed in 1971. Phase I investigation under way
Confirmed HW:	unknown: unknown
Environment Assesment:	Adjacent to tribs. to Hudson. No sampling has been done.
Health Assesment:	Not reported
Disposal Start Date:	Not reported
Disposal Term Date:	Not reported
Air Violation:	Not reported
Groundwater Violation:	Not reported
Drink Water Violation:	Not reported
Surface Water Violation:	Not reported
Legal New York State:	Not reported
Legal Federal:	Not reported
Legal State:	Not reported
Remedial Action Active:	Not reported
Remedial Action Done:	Not reported

STONY POINT LANDFILL (Continued) **S105972536**

NPL Status:	Not reported
Count Operator:	Not reported
Count Owner:	Not reported
NYTM X:	0
NYTM Y:	0
Co Name:	Not reported
Co Addr:	Not reported
Operator Addr:	Not reported
Operator Addr 2:	Not reported
Operator Addr 3:	Not reported
Operator Addr 4:	Not reported
HWDP From:	Not reported
From To:	Not reported
Assessment of Health:	Not reported
Description:	Not reported
Record Added Date:	Not reported
Record Updated Date:	Not reported
Env Assessment:	Not reported
HW Disposed/Quantity:	Not reported
Assess/Env Prog:	Not reported
Assess/Health Prob:	Not reported
Site Description:	Not reported

27
WNW
1/4-1/2
0.419 mi.
2211 ft.

MANGLASS **LTANKS** **S100138984**
139 N LIB LN **N/A**
STONY POINT, NY

Relative:
Higher

Actual:
99 ft.

LTANKS:

Site ID:	283615
Spill Number/Closed Date:	8400832 / 1987-03-11
Spill Date:	1984-06-21
Spill Cause:	Tank Failure
Spill Source:	Commercial/Industrial
Spill Class:	Known release with minimal potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
Cleanup Ceased:	1987-03-11
Cleanup Meets Standard:	True
SWIS:	4428
Investigator:	DVWEHRFR
Referred To:	Not reported
Reported to Dept:	1984-06-21
CID:	Not reported
Water Affected:	Not reported
Spill Notifier:	Affected Persons
Last Inspection:	1987-03-11
Recommended Penalty:	False
UST Involvement:	True
Remediation Phase:	0
Date Entered In Computer:	1986-06-24
Spill Record Last Update:	1995-12-04
Spiller Name:	Not reported
Spiller Company:	MANGLASS AUTO
Spiller Address:	SAME
Spiller City,St,Zip:	ZZ
Spiller County:	001
Spiller Contact:	Not reported

MANGLASS (Continued) **S100138984**

Spiller Phone: Not reported
Spiller Extention: Not reported
DEC Region: 3
DER Facility ID: 230041
DEC Memo: "Prior to Sept, 2004 data translation this spill Lead_DEC Field was WEHRFRITZ / / : DOT INSTALLED OBSERVATION WELL. "
Remarks: ""

Material:
Site ID: 283615
Operable Unit ID: 894130
Operable Unit: 01
Material ID: 481829
Material Code: 0009
Material Name: gasoline
Case No.: Not reported
Material FA: Petroleum
Quantity: .00
Units: Pounds
Recovered: .00
Resource Affected: Not reported
Oxygenate: Not reported

Tank Test:

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28 South 1/4-1/2 0.455 mi. 2400 ft. | **STONY POINT FILTRATION PLANT** | **LTANKS** | **S100141875**
MAIN STREET | **CBS** | **N/A**
STONY POINT, NY 10980 | **CBS AST**

Relative: Higher

Actual: 6 ft.

LTANKS:
Site ID: 85771
Spill Number/Closed Date: 9010344 / 1998-07-16
Spill Date: 1990-12-24
Spill Cause: Tank Test Failure
Spill Source: Commercial/Industrial
Spill Class: Known release with minimal potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
Cleanup Ceased: Not reported
Cleanup Meets Standard: False
SWIS: 4428
Investigator: tdghiosa
Referred To: Not reported
Reported to Dept: 1990-12-24
CID: Not reported
Water Affected: Not reported
Spill Notifier: Tank Tester
Last Inspection: Not reported
Recommended Penalty: False
UST Involvement: True
Remediation Phase: 0
Date Entered In Computer: 1990-12-27
Spill Record Last Update: 1998-08-05
Spiller Name: Not reported
Spiller Company: SAME

STONY POINT FILTRATION PLANT (Continued) **S100141875**

Spiller Address:	Not reported
Spiller City,St,Zip:	ZZ
Spiller County:	001
Spiller Contact:	Not reported
Spiller Phone:	Not reported
Spiller Extention:	Not reported
DEC Region:	3
DER Facility ID:	78749
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was GHIOSAY 09/27/95: This is additional information about material spilled from the translation of the old spill file: LINE TEST. 07/16/98 AS PER LETTER RCHD; TANK REMOVED, SITE ASSESSMENT REVIEWED . ASSESSMENT COMPLETE. NFA."
Remarks:	"AS PART OF UPGRADE LINE TESTED AND FAILED. ON SITE MW SHOWS NO PRODUCTWILL EIR RCHD TO HANDLE"

Material:

Site ID:	85771
Operable Unit ID:	947485
Operable Unit:	01
Material ID:	430505
Material Code:	0009
Material Name:	gasoline
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	.00
Units:	Pounds
Recovered:	.00
Resource Affected:	Not reported
Oxygenate:	Not reported

Tank Test:

Site ID:	85771
Spill Tank Test:	1538083
Tank Number:	Not reported
Tank Size:	0
Test Method:	00
Leak Rate:	.00
Gross Fail:	Not reported
Modified By:	Spills
Last Modified:	Not reported
Test Method:	Unknown

CBS:

CBS Number:	3-000194
Program Type:	CBS
Facility Status:	Unregulated/Closed
Expiration Date:	Not reported
Dec Region:	3
UTMX:	585767.56490
UTMY:	4564593.08490

CBS AST:

CBS Number:	3-000194

STONY POINT FILTRATION PLANT (Continued) **S100141875**

ICS Number:	3-301033
PBS Number:	Not reported
MOSF Number:	Not reported
SPDES Number:	Not reported
Facility Status:	IN SERVICE
Facility Type:	E
Telephone:	(914) 620-3328
Facility Town:	STONY POINT
Region:	STATE
Expiration Date:	07/19/1999
Total Capacity of All Active Tanks(gal):	0
Operator:	SCADA SUPERVISOR
Emergency Contact:	SCADA SUPERVISOR
Emergency Phone:	(914) 620-3328
Owner Name:	UNITED WATER NEW YORK
Owner Address:	360 WEST NYACK ROAD
Owner City,St,Zip:	WEST NYACK, NY 10994
Owner Telephone:	(914) 623-1500
Owner Type:	Corporate/Commercial
Owner Sub Type:	Not reported
Mail Name:	UNITED WATER NEW YORK
Mail Contact Addr:	360 WEST NYACK ROAD
Mail Contact Addr2:	Not reported
Mail Contact Contact:	JAMES P. SCHNEIDER
Mail Contact City,St,Zip:	WEST NYACK, NY 10994
Mail Phone:	(914) 623-1500

Tank Id:	00001
CAS Number:	10043013
Federal ID:	Not reported
Tank Status:	0
Install Date:	12/76
Tank Closed:	00/00
Capacity (Gal):	1000
Chemical:	Aluminum sulfate
Tank Location:	Indoors, Belowground
Tank Type:	Fiberglass reinforced plastic [FRP]
Total Tanks:	0
Tank Secret:	False
Tank Secondary Containment:	Vault
Tank Error Status:	No Missing Data
Date Entered:	07/19/1989
Certified Date:	09/29/1997
Substance:	Single Hazardous Substance on DEC List
Internal Protection:	None
External Protection:	None
Pipe Location:	Aboveground
Pipe Type:	Double Walled Fiberglass
Pipe Internal:	None
Pipe External:	None
Pipe Flag:	None
Leak Detection:	None
Overfill Protection:	None
Haz Percent:	50
Last Test:	Not reported
Due Date:	Not reported
SWIS Code:	3928

STONY POINT FILTRATION PLANT (Continued) **S100141875**

Lat/Long:	Not reported
Is Updated:	False
Renew Date:	04/01/93
Is It There:	False
Delinquent:	False
Date Expired:	07/19/95
Owner Mark:	1
Certificate Needs to be Printed:	False
Fiscal Amt for Registration Fee Correct:	True
Renewal Has Been Printed for Facility:	True
Pre-Printed Renewal App Last Printed:	04/05/1999

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29 WNW 1/4-1/2 0.466 mi. 2458 ft. | **CARRIAGE HOUSE RT. 9W PALISADES, NY** | **LTANKS** | **S106703659 N/A**

Relative: Higher

Actual: 113 ft.

LTANKS:

Site ID:	304502
Spill Number/Closed Date:	9213691 / 1997-01-13
Spill Date:	1993-03-12
Spill Cause:	Tank Failure
Spill Source:	Commercial/Industrial
Spill Class:	Known release with minimal potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
Cleanup Ceased:	Not reported
Cleanup Meets Standard:	True
SWIS:	4428
Investigator:	tdghiosa
Referred To:	Not reported
Reported to Dept:	1993-03-12
CID:	Not reported
Water Affected:	Not reported
Spill Notifier:	Other
Last Inspection:	Not reported
Recommended Penalty:	False
UST Involvement:	True
Remediation Phase:	0
Date Entered In Computer:	1993-03-19
Spill Record Last Update:	2003-08-20
Spiller Name:	Not reported
Spiller Company:	SAME
Spiller Address:	Not reported
Spiller City,St,Zip:	ZZ
Spiller County:	001
Spiller Contact:	Not reported
Spiller Phone:	Not reported
Spiller Extention:	Not reported
DEC Region:	3
DER Facility ID:	245970
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was GHIOSAY "
Remarks:	"WANTS TO PULL TANKS STUCK TANKS AND WATER DISCOVERED IN TANK TWO TANKS 1K AND 2K TANKS SPOKE WITH RCHD BOB PATTERSON FAXED SPILL REPORT TO BOB"

CARRIAGE HOUSE (Continued) **S106703659**

Material:

Site ID:	304502
Operable Unit ID:	977786
Operable Unit:	01
Material ID:	403456
Material Code:	0009
Material Name:	gasoline
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	.00
Units:	Pounds
Recovered:	.00
Resource Affected:	Not reported
Oxygenate:	Not reported

Tank Test:

Count: 0 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
		NO SITES FOUND			

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 03/07/2016
Date Data Arrived at EDR: 04/05/2016
Date Made Active in Reports: 04/15/2016
Number of Days to Update: 10

Source: EPA
Telephone: N/A
Last EDR Contact: 07/07/2016
Next Scheduled EDR Contact: 10/17/2016
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 03/07/2016
Date Data Arrived at EDR: 04/05/2016
Date Made Active in Reports: 04/15/2016
Number of Days to Update: 10

Source: EPA
Telephone: N/A
Last EDR Contact: 07/07/2016
Next Scheduled EDR Contact: 10/17/2016
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 03/07/2016	Source: EPA
Date Data Arrived at EDR: 04/05/2016	Telephone: N/A
Date Made Active in Reports: 04/15/2016	Last EDR Contact: 07/07/2016
Number of Days to Update: 10	Next Scheduled EDR Contact: 10/17/2016
	Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 11/13/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/06/2016	Telephone: 703-603-8704
Date Made Active in Reports: 05/20/2016	Last EDR Contact: 07/06/2016
Number of Days to Update: 135	Next Scheduled EDR Contact: 10/17/2016
	Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 03/07/2016	Source: EPA
Date Data Arrived at EDR: 04/05/2016	Telephone: 800-424-9346
Date Made Active in Reports: 04/15/2016	Last EDR Contact: 04/05/2016
Number of Days to Update: 10	Next Scheduled EDR Contact: 08/01/2016
	Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 03/07/2016
Date Data Arrived at EDR: 04/05/2016
Date Made Active in Reports: 04/15/2016
Number of Days to Update: 10

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 04/05/2016
Next Scheduled EDR Contact: 08/01/2016
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 12/09/2015
Date Data Arrived at EDR: 03/02/2016
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 34

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 06/30/2016
Next Scheduled EDR Contact: 10/10/2016
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 12/09/2015
Date Data Arrived at EDR: 03/02/2016
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 34

Source: Environmental Protection Agency
Telephone: (212) 637-3660
Last EDR Contact: 06/30/2016
Next Scheduled EDR Contact: 10/17/2016
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/09/2015
Date Data Arrived at EDR: 03/02/2016
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 34

Source: Environmental Protection Agency
Telephone: (212) 637-3660
Last EDR Contact: 06/30/2016
Next Scheduled EDR Contact: 10/17/2016
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 12/09/2015
Date Data Arrived at EDR: 03/02/2016
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 34

Source: Environmental Protection Agency
Telephone: (212) 637-3660
Last EDR Contact: 06/30/2016
Next Scheduled EDR Contact: 10/17/2016
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/09/2015
Date Data Arrived at EDR: 03/02/2016
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 34

Source: Environmental Protection Agency
Telephone: (212) 637-3660
Last EDR Contact: 06/30/2016
Next Scheduled EDR Contact: 10/17/2016
Data Release Frequency: Varies

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/28/2015
Date Data Arrived at EDR: 05/29/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 13

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 05/16/2016
Next Scheduled EDR Contact: 08/29/2016
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 09/10/2015
Date Data Arrived at EDR: 09/11/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 53

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 05/25/2016
Next Scheduled EDR Contact: 09/12/2016
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 09/10/2015
Date Data Arrived at EDR: 09/11/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 53

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 05/25/2016
Next Scheduled EDR Contact: 09/12/2016
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 03/28/2016
Date Data Arrived at EDR: 03/30/2016
Date Made Active in Reports: 05/20/2016
Number of Days to Update: 51

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 06/28/2016
Next Scheduled EDR Contact: 10/10/2016
Data Release Frequency: Annually

State- and tribal - equivalent CERCLIS

SHWS: Inactive Hazardous Waste Disposal Sites in New York State

Referred to as the State Superfund Program, the Inactive Hazardous Waste Disposal Site Remedial Program is the cleanup program for inactive hazardous waste sites and now includes hazardous substance sites

Date of Government Version: 05/17/2016
Date Data Arrived at EDR: 05/19/2016
Date Made Active in Reports: 07/07/2016
Number of Days to Update: 49

Source: Department of Environmental Conservation
Telephone: 518-402-9622
Last EDR Contact: 05/19/2016
Next Scheduled EDR Contact: 08/29/2016
Data Release Frequency: Annually

VAPOR REOPENED: Vapor Intrustion Legacy Site List

New York is currently re-evaluating previous assumptions and decisions regarding the potential for soil vapor intrusion exposures at sites. As a result, all past, current, and future contaminated sites will be evaluated to determine whether these sites have the potential for exposures related to soil vapor intrusion.

Date of Government Version: 08/01/2015
Date Data Arrived at EDR: 11/19/2015
Date Made Active in Reports: 12/10/2015
Number of Days to Update: 21

Source: Department of Environmenal Conservation
Telephone: 518-402-9814
Last EDR Contact: 05/20/2016
Next Scheduled EDR Contact: 08/29/2016
Data Release Frequency: Varies

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: Facility Register

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 04/06/2016
Date Data Arrived at EDR: 04/14/2016
Date Made Active in Reports: 06/17/2016
Number of Days to Update: 64

Source: Department of Environmental Conservation
Telephone: 518-457-2051
Last EDR Contact: 07/01/2016
Next Scheduled EDR Contact: 10/17/2016
Data Release Frequency: Semi-Annually

State and tribal leaking storage tank lists

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/13/2015
Date Data Arrived at EDR: 10/23/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 118

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 04/27/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Quarterly

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 01/07/2016
Date Data Arrived at EDR: 01/08/2016
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 41

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 04/29/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Quarterly

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 02/25/2016
Date Data Arrived at EDR: 04/27/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 37

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 04/27/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Quarterly

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 12/11/2015
Date Data Arrived at EDR: 02/19/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 105

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 04/29/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 02/05/2016
Date Data Arrived at EDR: 04/29/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 35

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 04/26/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Semi-Annually

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/27/2015
Date Data Arrived at EDR: 10/29/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 67

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 04/29/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 02/17/2016
Date Data Arrived at EDR: 04/27/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 37

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 04/27/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 10/09/2015
Date Data Arrived at EDR: 02/12/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 112

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 04/29/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Varies

LTANKS: Spills Information Database

Leaking Storage Tank Incident Reports. These records contain an inventory of reported leaking storage tank incidents reported from 4/1/86 through the most recent update. They can be either leaking underground storage tanks or leaking aboveground storage tanks. The causes of the incidents are tank test failures, tank failures or tank overfills.

Date of Government Version: 05/17/2016
Date Data Arrived at EDR: 05/19/2016
Date Made Active in Reports: 07/12/2016
Number of Days to Update: 54

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 05/19/2016
Next Scheduled EDR Contact: 08/29/2016
Data Release Frequency: Varies

HIST LTANKS: Listing of Leaking Storage Tanks

A listing of leaking underground and aboveground storage tanks. The causes of the incidents are tank test failures, tank failures or tank overfills. In 2002, the Department of Environmental Conservation stopped providing updates to its original Spills Information Database. This database includes fields that are no longer available from the NYDEC as of January 1, 2002. Current information may be found in the NY LTANKS database. Department of Environmental Conservation.

Date of Government Version: 01/01/2002
Date Data Arrived at EDR: 07/08/2005
Date Made Active in Reports: 07/14/2005
Number of Days to Update: 6

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 07/07/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 07/07/2016
Next Scheduled EDR Contact: 10/24/2016
Data Release Frequency: Varies

UST: Petroleum Bulk Storage (PBS) Database

Facilities that have petroleum storage capacities in excess of 1,100 gallons and less than 400,000 gallons.

Date of Government Version: 03/29/2016
Date Data Arrived at EDR: 03/31/2016
Date Made Active in Reports: 04/20/2016
Number of Days to Update: 20

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 06/30/2016
Next Scheduled EDR Contact: 10/10/2016
Data Release Frequency: No Update Planned

CBS UST: Chemical Bulk Storage Database

Facilities that store regulated hazardous substances in underground tanks of any size

Date of Government Version: 01/01/2002
Date Data Arrived at EDR: 02/20/2002
Date Made Active in Reports: 03/22/2002
Number of Days to Update: 30

Source: NYSDEC
Telephone: 518-402-9549
Last EDR Contact: 10/24/2005
Next Scheduled EDR Contact: 01/23/2006
Data Release Frequency: No Update Planned

MOSF UST: Major Oil Storage Facilities Database

Facilities that may be onshore facilities or vessels, with petroleum storage capacities of 400,000 gallons or greater.

Date of Government Version: 01/01/2002
Date Data Arrived at EDR: 02/20/2002
Date Made Active in Reports: 03/22/2002
Number of Days to Update: 30

Source: NYSDEC
Telephone: 518-402-9549
Last EDR Contact: 07/25/2005
Next Scheduled EDR Contact: 10/24/2005
Data Release Frequency: No Update Planned

CBS: Chemical Bulk Storage Site Listing
These facilities store regulated hazardous substances in aboveground tanks with capacities of 185 gallons or greater, and/or in underground tanks of any size

Date of Government Version: 03/29/2016
Date Data Arrived at EDR: 03/31/2016
Date Made Active in Reports: 04/20/2016
Number of Days to Update: 20

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 06/30/2016
Next Scheduled EDR Contact: 10/10/2016
Data Release Frequency: Quarterly

MOSF: Major Oil Storage Facility Site Listing
These facilities may be onshore facilities or vessels, with petroleum storage capacities of 400,000 gallons or greater.

Date of Government Version: 03/29/2016
Date Data Arrived at EDR: 03/31/2016
Date Made Active in Reports: 04/20/2016
Number of Days to Update: 20

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 06/30/2016
Next Scheduled EDR Contact: 10/10/2016
Data Release Frequency: Quarterly

AST: Petroleum Bulk Storage
Registered Aboveground Storage Tanks.

Date of Government Version: 03/29/2016
Date Data Arrived at EDR: 03/31/2016
Date Made Active in Reports: 04/20/2016
Number of Days to Update: 20

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 06/30/2016
Next Scheduled EDR Contact: 10/10/2016
Data Release Frequency: No Update Planned

CBS AST: Chemical Bulk Storage Database
Facilities that store regulated hazardous substances in aboveground tanks with capacities of 185 gallons or greater, and/or in underground tanks of any size.

Date of Government Version: 01/01/2002
Date Data Arrived at EDR: 02/20/2002
Date Made Active in Reports: 03/22/2002
Number of Days to Update: 30

Source: NYSDEC
Telephone: 518-402-9549
Last EDR Contact: 07/25/2005
Next Scheduled EDR Contact: 10/24/2005
Data Release Frequency: No Update Planned

MOSF AST: Major Oil Storage Facilities Database
Facilities that may be onshore facilities or vessels, with petroleum storage capacities of 400,000 gallons or greater.

Date of Government Version: 01/01/2002
Date Data Arrived at EDR: 02/20/2002
Date Made Active in Reports: 03/22/2002
Number of Days to Update: 30

Source: NYSDEC
Telephone: 518-402-9549
Last EDR Contact: 07/25/2005
Next Scheduled EDR Contact: 10/24/2005
Data Release Frequency: No Update Planned

INDIAN UST R4: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 02/05/2016
Date Data Arrived at EDR: 04/29/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 35

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 04/26/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Semi-Annually

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/20/2015
Date Data Arrived at EDR: 10/29/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 67

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 04/29/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 02/25/2016
Date Data Arrived at EDR: 04/27/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 37

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 04/27/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Quarterly

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 01/26/2016
Date Data Arrived at EDR: 02/05/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 119

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 04/29/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 01/07/2016
Date Data Arrived at EDR: 01/08/2016
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 41

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 04/29/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Quarterly

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 09/23/2014
Date Data Arrived at EDR: 11/25/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 65

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 04/29/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 12/03/2015
Date Data Arrived at EDR: 02/04/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 120

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 04/29/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 11/05/2015
Date Data Arrived at EDR: 11/13/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 52

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 04/27/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Varies

TANKS: Storage Tank Faciliy Listing
This database contains records of facilities that are or have been regulated under Bulk Storage Program. Tank information for these facilities may not be releasable by the state agency.

Date of Government Version: 03/29/2016
Date Data Arrived at EDR: 03/31/2016
Date Made Active in Reports: 04/20/2016
Number of Days to Update: 20

Source: Department of Environmental Conservation
Telephone: 518-402-9543
Last EDR Contact: 06/30/2016
Next Scheduled EDR Contact: 10/10/2016
Data Release Frequency: Quarterly

State and tribal institutional control / engineering control registries

ENV RES DECL: Environmental Restrictive Declarations
The Environmental Restrictive Declarations (ERD) listed were recorded in connection with a zoning action against the noted Tax Blocks and Tax Lots, or portion thereof, and are available in the property records on file at the Office of the City Register for Bronx, Kings, New York and Queens counties or at the Richmond County Clerk's office. They contain environmental requirements with respect to hazardous materials, air quality and/or noise in accordance with Section 11-15 of this Resolution.

Date of Government Version: 02/04/2016
Date Data Arrived at EDR: 03/24/2016
Date Made Active in Reports: 04/20/2016
Number of Days to Update: 27

Source: New York City Department of City Planning
Telephone: 212-720-3300
Last EDR Contact: 06/21/2016
Next Scheduled EDR Contact: 10/03/2016
Data Release Frequency: Varies

RES DECL: Restrictive Declarations Listing
A restrictive declaration is a covenant running with the land which binds the present and future owners of the property. As a condition of certain special permits, the City Planning Commission may require an applicant to sign and record a restrictive declaration that places specified conditions on the future use and development of the property. Certain restrictive declarations are indicated by a D on zoning maps.

Date of Government Version: 11/18/2010
Date Data Arrived at EDR: 06/30/2014
Date Made Active in Reports: 07/21/2014
Number of Days to Update: 21

Source: NYC Department of City Planning
Telephone: 212-720-3401
Last EDR Contact: 06/24/2016
Next Scheduled EDR Contact: 10/03/2016
Data Release Frequency: Varies

ENG CONTROLS: Registry of Engineering Controls
Environmental Remediation sites that have engineering controls in place.

Date of Government Version: 05/17/2016
Date Data Arrived at EDR: 05/19/2016
Date Made Active in Reports: 07/07/2016
Number of Days to Update: 49

Source: Department of Environmental Conservation
Telephone: 518-402-9553
Last EDR Contact: 05/19/2016
Next Scheduled EDR Contact: 08/29/2016
Data Release Frequency: Quarterly

INST CONTROL: Registry of Institutional Controls
Environmental Remediation sites that have institutional controls in place.

Date of Government Version: 05/17/2016
Date Data Arrived at EDR: 05/19/2016
Date Made Active in Reports: 07/07/2016
Number of Days to Update: 49

Source: Department of Environmental Conservation
Telephone: 518-402-9553
Last EDR Contact: 05/19/2016
Next Scheduled EDR Contact: 08/29/2016
Data Release Frequency: Quarterly

State and tribal voluntary cleanup sites

VCP: Voluntary Cleanup Agreements

New York established its Voluntary Cleanup Program (VCP) to address the environmental, legal and financial barriers that often hinder the redevelopment and reuse of contaminated properties. The Voluntary Cleanup Program was developed to enhance private sector cleanup of brownfields by enabling parties to remediate sites using private rather than public funds and to reduce the development pressures on "greenfield" sites.

Date of Government Version: 05/17/2016
Date Data Arrived at EDR: 05/19/2016
Date Made Active in Reports: 07/07/2016
Number of Days to Update: 49

Source: Department of Environmental Conservation
Telephone: 518-402-9711
Last EDR Contact: 05/19/2016
Next Scheduled EDR Contact: 08/29/2016
Data Release Frequency: Semi-Annually

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 07/01/2016
Next Scheduled EDR Contact: 10/10/2016
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Brownfields Site List

A Brownfield is any real property where redevelopment or re-use may be complicated by the presence or potential presence of a hazardous waste, petroleum, pollutant, or contaminant.

Date of Government Version: 05/17/2016
Date Data Arrived at EDR: 05/19/2016
Date Made Active in Reports: 07/07/2016
Number of Days to Update: 49

Source: Department of Environmental Conservation
Telephone: 518-402-9764
Last EDR Contact: 05/19/2016
Next Scheduled EDR Contact: 08/29/2016
Data Release Frequency: Semi-Annually

ERP: Environmental Restoration Program Listing

In an effort to spur the cleanup and redevelopment of brownfields, New Yorkers approved a $200 million Environmental Restoration or Brownfields Fund as part of the $1.75 billion Clean Water/Clean Air Bond Act of 1996 (1996 Bond Act). Enhancements to the program were enacted on October 7, 2003. Under the Environmental Restoration Program, the State provides grants to municipalities to reimburse up to 90 percent of on-site eligible costs and 100% of off-site eligible costs for site investigation and remediation activities. Once remediated, the property may then be reused for commercial, industrial, residential or public use.

Date of Government Version: 05/17/2016
Date Data Arrived at EDR: 05/19/2016
Date Made Active in Reports: 07/07/2016
Number of Days to Update: 49

Source: Department of Environmental Conservation
Telephone: 518-402-9622
Last EDR Contact: 05/19/2016
Next Scheduled EDR Contact: 08/29/2016
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 03/21/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/22/2016	Telephone: 202-566-2777
Date Made Active in Reports: 07/13/2016	Last EDR Contact: 06/22/2016
Number of Days to Update: 113	Next Scheduled EDR Contact: 10/03/2016
	Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY: Registered Recycling Facility List

A listing of recycling facilities.

Date of Government Version: 04/06/2016	Source: Department of Environmental Conservation
Date Data Arrived at EDR: 04/14/2016	Telephone: 518-402-8705
Date Made Active in Reports: 06/17/2016	Last EDR Contact: 07/01/2016
Number of Days to Update: 64	Next Scheduled EDR Contact: 10/17/2016
	Data Release Frequency: Semi-Annually

SWTIRE: Registered Waste Tire Storage & Facility List

A listing of facilities registered to accept waste tires.

Date of Government Version: 08/01/2006	Source: Department of Environmental Conservation
Date Data Arrived at EDR: 11/15/2006	Telephone: 518-402-8694
Date Made Active in Reports: 11/30/2006	Last EDR Contact: 01/15/2016
Number of Days to Update: 15	Next Scheduled EDR Contact: 05/02/2016
	Data Release Frequency: Annually

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/03/2007	Telephone: 703-308-8245
Date Made Active in Reports: 01/24/2008	Last EDR Contact: 04/27/2016
Number of Days to Update: 52	Next Scheduled EDR Contact: 08/15/2016
	Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009	Source: EPA, Region 9
Date Data Arrived at EDR: 05/07/2009	Telephone: 415-947-4219
Date Made Active in Reports: 09/21/2009	Last EDR Contact: 07/20/2016
Number of Days to Update: 137	Next Scheduled EDR Contact: 10/07/2016
	Data Release Frequency: No Update Planned

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register
A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 05/04/2016
Date Data Arrived at EDR: 06/03/2016
Date Made Active in Reports: 07/13/2016
Number of Days to Update: 40

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/31/2016
Next Scheduled EDR Contact: 06/13/2016
Data Release Frequency: No Update Planned

DEL SHWS: Delisted Registry Sites
A database listing of sites delisted from the Registry of Inactive Hazardous Waste Disposal Sites.

Date of Government Version: 05/17/2016
Date Data Arrived at EDR: 05/19/2016
Date Made Active in Reports: 07/07/2016
Number of Days to Update: 49

Source: Department of Environmental Conservation
Telephone: 518-402-9622
Last EDR Contact: 05/19/2016
Next Scheduled EDR Contact: 08/29/2016
Data Release Frequency: Annually

US CDL: Clandestine Drug Labs
A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 05/04/2016
Date Data Arrived at EDR: 06/03/2016
Date Made Active in Reports: 07/13/2016
Number of Days to Update: 40

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/31/2016
Next Scheduled EDR Contact: 09/12/2016
Data Release Frequency: Quarterly

Local Lists of Registered Storage Tanks

HIST UST: Historical Petroleum Bulk Storage Database
These facilities have petroleum storage capacities in excess of 1,100 gallons and less than 400,000 gallons. This database contains detailed information per site. It is no longer updated due to the sensitive nature of the information involved. See UST for more current data.

Date of Government Version: 01/01/2002
Date Data Arrived at EDR: 06/02/2006
Date Made Active in Reports: 07/20/2006
Number of Days to Update: 48

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 10/23/2006
Next Scheduled EDR Contact: 01/22/2007
Data Release Frequency: Varies

HIST AST: Historical Petroleum Bulk Storage Database
These facilities have petroleum storage capabilities in excess of 1,100 gallons and less than 400,000 gallons. This database contains detailed information per site. No longer updated due to the sensitive nature of the information involved. See AST for more current data.

Date of Government Version: 01/01/2002
Date Data Arrived at EDR: 06/02/2006
Date Made Active in Reports: 07/20/2006
Number of Days to Update: 48

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 10/23/2006
Next Scheduled EDR Contact: 01/22/2007
Data Release Frequency: No Update Planned

Local Land Records

LIENS: Spill Liens Information
Lien information from the Oil Spill Fund.

Date of Government Version: 02/08/2016
Date Data Arrived at EDR: 02/10/2016
Date Made Active in Reports: 03/22/2016
Number of Days to Update: 41

Source: Office of the State Comptroller
Telephone: 518-474-9034
Last EDR Contact: 08/01/2016
Next Scheduled EDR Contact: 08/22/2016
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information
A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/18/2014
Date Data Arrived at EDR: 03/18/2014
Date Made Active in Reports: 04/24/2014
Number of Days to Update: 37

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 04/26/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Varies

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System
Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 06/24/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 09/02/2015
Number of Days to Update: 68

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 06/28/2016
Next Scheduled EDR Contact: 10/10/2016
Data Release Frequency: Annually

SPILLS: Spills Information Database
Data collected on spills reported to NYSDEC as required by one or more of the following: Article 12 of the Navigation Law, 6 NYCRR Section 613.8 (from PBS regs), or 6 NYCRR Section 595.2 (from CBS regs). It includes spills active as of April 1, 1986, as well as spills occurring since this date.

Date of Government Version: 05/17/2016
Date Data Arrived at EDR: 05/19/2016
Date Made Active in Reports: 07/12/2016
Number of Days to Update: 54

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 05/19/2016
Next Scheduled EDR Contact: 08/29/2016
Data Release Frequency: Varies

HIST SPILLS: SPILLS Database
This database contains records of chemical and petroleum spill incidents. Under State law, petroleum and hazardous chemical spills that can impact the waters of the state must be reported by the spiller (and, in some cases, by anyone who has knowledge of the spills). In 2002, the Department of Environmental Conservation stopped providing updates to its original Spills Information Database. This database includes fields that are no longer available from the NYDEC as of January 1, 2002. Current information may be found in the NY SPILLS database. Department of Environmental Conservation.

Date of Government Version: 01/01/2002
Date Data Arrived at EDR: 07/08/2005
Date Made Active in Reports: 07/14/2005
Number of Days to Update: 6

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 07/07/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 12/14/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/12/2013
Number of Days to Update: 40

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SPILLS 80: SPILLS80 data from FirstSearch

Spills 80 includes those spill and release records available from FirstSearch databases prior to 1990. Typically, they may include chemical, oil and/or hazardous substance spills recorded before 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 80.

Date of Government Version: 11/02/2010
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 03/07/2013
Number of Days to Update: 63

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 12/09/2015
Date Data Arrived at EDR: 03/02/2016
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 34

Source: Environmental Protection Agency
Telephone: (212) 637-3660
Last EDR Contact: 06/30/2016
Next Scheduled EDR Contact: 10/17/2016
Data Release Frequency: Varies

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015
Date Data Arrived at EDR: 07/08/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 97

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 06/10/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 07/15/2016
Next Scheduled EDR Contact: 10/24/2016
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 07/15/2016
Next Scheduled EDR Contact: 10/24/2016
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011
Date Data Arrived at EDR: 03/09/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 05/20/2016
Next Scheduled EDR Contact: 08/29/2016
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 09/01/2015
Date Data Arrived at EDR: 09/03/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 61

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 05/18/2016
Next Scheduled EDR Contact: 08/29/2016
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 05/09/2016
Next Scheduled EDR Contact: 08/22/2016
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 04/22/2013
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 05/12/2016
Next Scheduled EDR Contact: 08/22/2016
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 01/15/2015
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 14

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 06/24/2016
Next Scheduled EDR Contact: 10/03/2016
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 11/24/2015
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 133

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 05/24/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 04/25/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 11/25/2013
Date Data Arrived at EDR: 12/12/2013
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 74

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 06/07/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 08/01/2015
Date Data Arrived at EDR: 08/26/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 69

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 04/25/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 10/17/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 3

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 05/12/2016
Next Scheduled EDR Contact: 08/22/2016
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 10/15/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 33

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 07/15/2016
Next Scheduled EDR Contact: 10/24/2016
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 01/23/2015
Date Data Arrived at EDR: 02/06/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 07/07/2016
Next Scheduled EDR Contact: 10/24/2016
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 05/20/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 05/20/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Quarterly

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 03/07/2016
Date Data Arrived at EDR: 03/18/2016
Date Made Active in Reports: 04/15/2016
Number of Days to Update: 28

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 05/06/2016
Next Scheduled EDR Contact: 08/22/2016
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 06/09/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 06/10/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011
Date Data Arrived at EDR: 10/19/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 83

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 04/26/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/07/2015
Date Data Arrived at EDR: 07/09/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 69

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 07/07/2016
Next Scheduled EDR Contact: 10/17/2016
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 05/04/2016
Next Scheduled EDR Contact: 08/15/2016
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 04/17/2015
Date Made Active in Reports: 06/02/2015
Number of Days to Update: 46

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 07/15/2016
Next Scheduled EDR Contact: 10/10/2016
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 02/24/2015
Date Made Active in Reports: 09/30/2015
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 05/27/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 07/15/2016
Next Scheduled EDR Contact: 10/24/2016
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 03/11/2016
Date Data Arrived at EDR: 03/15/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 80

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 05/09/2016
Next Scheduled EDR Contact: 08/22/2016
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010
Date Data Arrived at EDR: 10/07/2011
Date Made Active in Reports: 03/01/2012
Number of Days to Update: 146

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 05/23/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites
A listing of former lead smelter site locations.

Date of Government Version: 11/25/2014
Date Data Arrived at EDR: 11/26/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 64

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 07/08/2016
Next Scheduled EDR Contact: 10/17/2016
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites
A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)
The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/20/2015
Date Data Arrived at EDR: 10/27/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 69

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 06/22/2016
Next Scheduled EDR Contact: 10/10/2016
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data
A listing of minor source facilities.

Date of Government Version: 10/20/2015
Date Data Arrived at EDR: 10/27/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 69

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 06/22/2016
Next Scheduled EDR Contact: 10/10/2016
Data Release Frequency: Annually

US MINES: Mines Master Index File
Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 02/09/2016
Date Data Arrived at EDR: 03/02/2016
Date Made Active in Reports: 04/15/2016
Number of Days to Update: 44

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 06/02/2016
Next Scheduled EDR Contact: 09/12/2016
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing
This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 06/03/2016
Next Scheduled EDR Contact: 09/12/2016
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 06/03/2016
Next Scheduled EDR Contact: 09/12/2016
Data Release Frequency: Varies

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 07/20/2015
Date Data Arrived at EDR: 09/09/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 55

Source: EPA
Telephone: (212) 637-3000
Last EDR Contact: 06/08/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 03/01/2016
Date Data Arrived at EDR: 03/03/2016
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 33

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 05/25/2016
Next Scheduled EDR Contact: 09/12/2016
Data Release Frequency: Varies

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 10/25/2015
Date Data Arrived at EDR: 01/29/2016
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 67

Source: Department of Defense
Telephone: 571-373-0407
Last EDR Contact: 06/20/2016
Next Scheduled EDR Contact: 10/03/2016
Data Release Frequency: Varies

AIRS: Air Emissions Data

Point source emissions inventory data.

Date of Government Version: 01/25/2016
Date Data Arrived at EDR: 02/16/2016
Date Made Active in Reports: 03/22/2016
Number of Days to Update: 35

Source: Department of Environmental Conservation
Telephone: 518-402-8452
Last EDR Contact: 04/25/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Annually

COAL ASH: Coal Ash Disposal Site Listing

A listing of coal ash disposal site locations.

Date of Government Version: 04/06/2016
Date Data Arrived at EDR: 04/15/2016
Date Made Active in Reports: 06/17/2016
Number of Days to Update: 63

Source: Department of Environmental Conservation
Telephone: 518-402-8660
Last EDR Contact: 07/01/2016
Next Scheduled EDR Contact: 10/17/2016
Data Release Frequency: Varies

DRYCLEANERS: Registered Drycleaners

A listing of all registered drycleaning facilities.

Date of Government Version: 03/25/2016
Date Data Arrived at EDR: 04/12/2016
Date Made Active in Reports: 06/17/2016
Number of Days to Update: 66

Source: Department of Environmental Conservation
Telephone: 518-402-8403
Last EDR Contact: 06/13/2016
Next Scheduled EDR Contact: 09/26/2016
Data Release Frequency: Varies

E DESIGNATION: E DESIGNATION SITE LISTING

The (E (Environmental)) designation would ensure that sampling and remediation take place on the subject properties, and would avoid any significant impacts related to hazardous materials at these locations. The (E) designations would require that the fee owner of the sites conduct a testing and sampling protocol, and remediation where appropriate, to the satisfaction of the NYCDEP before the issuance of a building permit by the Department of Buildings pursuant to the provisions of Section 11-15 of the Zoning Resolution (Environmental Requirements). The (E) designations also include a mandatory construction-related health and safety plan which must be approved by NYCDEP.

Date of Government Version: 03/14/2016
Date Data Arrived at EDR: 03/24/2016
Date Made Active in Reports: 04/20/2016
Number of Days to Update: 27

Source: New York City Department of City Planning
Telephone: 718-595-6658
Last EDR Contact: 06/21/2016
Next Scheduled EDR Contact: 10/03/2016
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

Financial assurance information.

Date of Government Version: 04/06/2016
Date Data Arrived at EDR: 04/08/2016
Date Made Active in Reports: 07/01/2016
Number of Days to Update: 84

Source: Department of Environmental Conservation
Telephone: 518-402-8660
Last EDR Contact: 07/01/2016
Next Scheduled EDR Contact: 10/17/2016
Data Release Frequency: Quarterly

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for hazardous waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 12/01/2015
Date Data Arrived at EDR: 12/29/2015
Date Made Active in Reports: 02/11/2016
Number of Days to Update: 44

Source: Department of Environmental Conservation
Telephone: 518-402-8712
Last EDR Contact: 05/16/2016
Next Scheduled EDR Contact: 08/29/2016
Data Release Frequency: Varies

HSWDS: Hazardous Substance Waste Disposal Site Inventory

The list includes any known or suspected hazardous substance waste disposal sites. Also included are sites delisted from the Registry of Inactive Hazardous Waste Disposal Sites and non-Registry sites that U.S. EPA Preliminary Assessment (PA) reports or Site Investigation (SI) reports were prepared. Hazardous Substance Waste Disposal Sites are eligible to be Superfund sites now that the New York State Superfund has been refinanced and changed. This means that the study inventory has served its purpose and will no longer be maintained as a separate entity. The last version of the study inventory is frozen in time. The sites on the study will not automatically be made Superfund sites, rather each site will be further evaluated for listing on the Registry. So overtime they will be added to the registry or not.

Date of Government Version: 01/01/2003
Date Data Arrived at EDR: 10/20/2006
Date Made Active in Reports: 11/30/2006
Number of Days to Update: 41

Source: Department of Environmental Conservation
Telephone: 518-402-9564
Last EDR Contact: 05/26/2009
Next Scheduled EDR Contact: 08/24/2009
Data Release Frequency: No Update Planned

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 05/01/2016
Date Data Arrived at EDR: 05/06/2016
Date Made Active in Reports: 06/17/2016
Number of Days to Update: 42

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 05/06/2016
Next Scheduled EDR Contact: 08/15/2016
Data Release Frequency: Annually

SPDES: State Pollutant Discharge Elimination System

New York State has a state program which has been approved by the United States Environmental Protection Agency for the control of wastewater and stormwater discharges in accordance with the Clean Water Act. Under New York State law the program is known as the State Pollutant Discharge Elimination System (SPDES) and is broader in scope than that required by the Clean Water Act in that it controls point source discharges to groundwaters as well as surface waters.

Date of Government Version: 05/03/2016
Date Data Arrived at EDR: 05/10/2016
Date Made Active in Reports: 06/17/2016
Number of Days to Update: 38

Source: Department of Environmental Conservation
Telephone: 518-402-8233
Last EDR Contact: 04/25/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: No Update Planned

UIC: Underground Injection Control Wells

A listing of enhanced oil recovery underground injection wells.

Date of Government Version: 06/06/2016
Date Data Arrived at EDR: 06/08/2016
Date Made Active in Reports: 07/01/2016
Number of Days to Update: 23

Source: Department of Environmental Conservation
Telephone: 518-402-8056
Last EDR Contact: 06/08/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: Quarterly

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 09/20/2015
Date Data Arrived at EDR: 09/23/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 103

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 06/22/2016
Next Scheduled EDR Contact: 10/03/2016
Data Release Frequency: Quarterly

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 05/24/2016
Date Data Arrived at EDR: 05/25/2016
Date Made Active in Reports: 07/13/2016
Number of Days to Update: 49

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 05/25/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Quarterly

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List

The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Conservation in New York.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: Department of Environmental Conservation
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LF: Recovered Government Archive Solid Waste Facilities List
The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Conservation in New York.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/10/2014
Number of Days to Update: 193
Source: Department of Environmental Conservation
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

CORTLAND COUNTY:

Cortland County Storage Tank Listing
A listing of aboveground storage tank sites located in Cortland County.

Date of Government Version: 05/18/2016
Date Data Arrived at EDR: 05/24/2016
Date Made Active in Reports: 07/01/2016
Number of Days to Update: 38
Source: Cortland County Health Department
Telephone: 607-753-5035
Last EDR Contact: 05/02/2016
Next Scheduled EDR Contact: 08/15/2016
Data Release Frequency: Quarterly

Cortland County Storage Tank Listing
A listing of underground storage tank sites located in Cortland County.

Date of Government Version: 05/18/2016
Date Data Arrived at EDR: 05/24/2016
Date Made Active in Reports: 07/01/2016
Number of Days to Update: 38
Source: Cortland County Health Department
Telephone: 607-753-5035
Last EDR Contact: 05/02/2016
Next Scheduled EDR Contact: 08/15/2016
Data Release Frequency: Quarterly

NASSAU COUNTY:

Registered Tank Database
A listing of aboveground storage tank sites located in Nassau County.

Date of Government Version: 04/22/2016
Date Data Arrived at EDR: 04/26/2016
Date Made Active in Reports: 06/17/2016
Number of Days to Update: 52
Source: Nassau County Health Department
Telephone: 516-571-3314
Last EDR Contact: 07/05/2016
Next Scheduled EDR Contact: 10/17/2016
Data Release Frequency: No Update Planned

Storage Tank Database
A listing of aboveground storage tank sites located in Nassau County.

Date of Government Version: 02/15/2011
Date Data Arrived at EDR: 02/23/2011
Date Made Active in Reports: 03/29/2011
Number of Days to Update: 34
Source: Nassau County Office of the Fire Marshal
Telephone: 516-572-1000
Last EDR Contact: 05/02/2016
Next Scheduled EDR Contact: 08/15/2016
Data Release Frequency: Varies

Registered Tank Database in Nassau County
A listing of facilities in Nassau County with storage tanks.

Date of Government Version: 04/22/2016
Date Data Arrived at EDR: 04/26/2016
Date Made Active in Reports: 06/17/2016
Number of Days to Update: 52
Source: Nassau County Department of Health
Telephone: 516-227-9691
Last EDR Contact: 07/05/2016
Next Scheduled EDR Contact: 10/17/2016
Data Release Frequency: Varies

Registered Tank Database
A listing of underground storage tank sites located in Nassau County.

Date of Government Version: 04/22/2016
Date Data Arrived at EDR: 04/26/2016
Date Made Active in Reports: 06/17/2016
Number of Days to Update: 52

Source: Nassau County Health Department
Telephone: 516-571-3314
Last EDR Contact: 07/05/2016
Next Scheduled EDR Contact: 10/17/2016
Data Release Frequency: No Update Planned

Storage Tank Database
A listing of underground storage tank sites located in Nassau County.

Date of Government Version: 02/15/2011
Date Data Arrived at EDR: 02/23/2011
Date Made Active in Reports: 03/29/2011
Number of Days to Update: 34

Source: Nassau County Office of the Fire Marshal
Telephone: 516-572-1000
Last EDR Contact: 05/02/2016
Next Scheduled EDR Contact: 08/15/2016
Data Release Frequency: Varies

ROCKLAND COUNTY:

Petroleum Bulk Storage Database
A listing of aboveground storage tank sites located in Rockland County.

Date of Government Version: 04/12/2016
Date Data Arrived at EDR: 04/15/2016
Date Made Active in Reports: 06/17/2016
Number of Days to Update: 63

Source: Rockland County Health Department
Telephone: 914-364-2605
Last EDR Contact: 06/06/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: Quarterly

Petroleum Bulk Storage Database
A listing of underground storage tank sites located in Rockland County.

Date of Government Version: 04/12/2016
Date Data Arrived at EDR: 04/15/2016
Date Made Active in Reports: 06/17/2016
Number of Days to Update: 63

Source: Rockland County Health Department
Telephone: 914-364-2605
Last EDR Contact: 06/06/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: Quarterly

SUFFOLK COUNTY:

Storage Tank Database
A listing of aboveground storage tank sites located in Suffolk County.

Date of Government Version: 03/03/2015
Date Data Arrived at EDR: 03/10/2015
Date Made Active in Reports: 03/23/2015
Number of Days to Update: 13

Source: Suffolk County Department of Health Services
Telephone: 631-854-2521
Last EDR Contact: 05/02/2016
Next Scheduled EDR Contact: 08/15/2016
Data Release Frequency: No Update Planned

Storage Tank Database
A listing of underground storage tank sites located in Suffolk County.

Date of Government Version: 03/03/2015
Date Data Arrived at EDR: 03/10/2015
Date Made Active in Reports: 03/23/2015
Number of Days to Update: 13

Source: Suffolk County Department of Health Services
Telephone: 631-854-2521
Last EDR Contact: 05/02/2016
Next Scheduled EDR Contact: 08/15/2016
Data Release Frequency: No Update Planned

WESTCHESTER COUNTY:

Listing of Storage Tanks
A listing of aboveground storage tank sites located in Westchester County.

Date of Government Version: 02/19/2016
Date Data Arrived at EDR: 02/24/2016
Date Made Active in Reports: 03/22/2016
Number of Days to Update: 27

Source: Westchester County Department of Health
Telephone: 914-813-5161
Last EDR Contact: 05/02/2016
Next Scheduled EDR Contact: 08/15/2016
Data Release Frequency: Varies

Listing of Storage Tanks
A listing of underground storage tank sites located in Westchester County.

Date of Government Version: 02/19/2016
Date Data Arrived at EDR: 02/24/2016
Date Made Active in Reports: 03/22/2016
Number of Days to Update: 27

Source: Westchester County Department of Health
Telephone: 914-813-5161
Last EDR Contact: 05/02/2016
Next Scheduled EDR Contact: 08/15/2016
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 07/30/2013
Date Data Arrived at EDR: 08/19/2013
Date Made Active in Reports: 10/03/2013
Number of Days to Update: 45

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 05/13/2016
Next Scheduled EDR Contact: 08/29/2016
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 07/17/2015
Date Made Active in Reports: 08/12/2015
Number of Days to Update: 26

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 07/11/2016
Next Scheduled EDR Contact: 10/24/2016
Data Release Frequency: Annually

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/24/2015
Date Made Active in Reports: 08/18/2015
Number of Days to Update: 25

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 07/18/2016
Next Scheduled EDR Contact: 10/31/2016
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 06/19/2015
Date Made Active in Reports: 07/15/2015
Number of Days to Update: 26

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 06/06/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Annually

VT MANIFEST: Hazardous Waste Manifest Data
Hazardous waste manifest information.

Date of Government Version: 05/02/2016
Date Data Arrived at EDR: 05/24/2016
Date Made Active in Reports: 07/13/2016
Number of Days to Update: 50

Source: Department of Environmental Conservation
Telephone: 802-241-3443
Last EDR Contact: 07/18/2016
Next Scheduled EDR Contact: 10/31/2016
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 04/14/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 50

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 06/13/2016
Next Scheduled EDR Contact: 09/26/2016
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: PennWell Corporation
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data
Source: PennWell Corporation
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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Day Care Providers
Source: Department of Health
Telephone: 212-676-2444

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Freshwater Wetlands
Source: Department of Environmental Conservation
Telephone: 518-402-8961

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

22, 29, 31 HUDSON DR
22, 29, 31 HUDSON DR
STONY POINT, NY 10980

TARGET PROPERTY COORDINATES

Latitude (North):	41.234877 - 41˚ 14' 5.56''
Longitude (West):	73.97518 - 73˚ 58' 30.65''
Universal Tranverse Mercator:	Zone 18
UTM X (Meters):	585885.2
UTM Y (Meters):	4565125.0
Elevation:	0 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5939743 HAVERSTRAW, NY
Version Date:	2013
North Map:	5939759 PEEKSKILL, NY
Version Date:	2013
Southwest Map:	5940195 THIELLS, NY
Version Date:	2013
Northwest Map:	5940185 POPOLOPEN LAKE, NY
Version Date:	2013

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

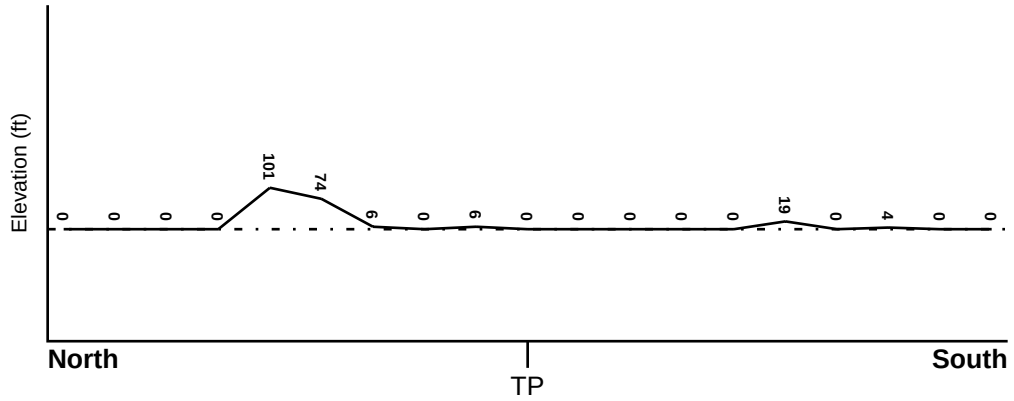
TOPOGRAPHIC INFORMATION

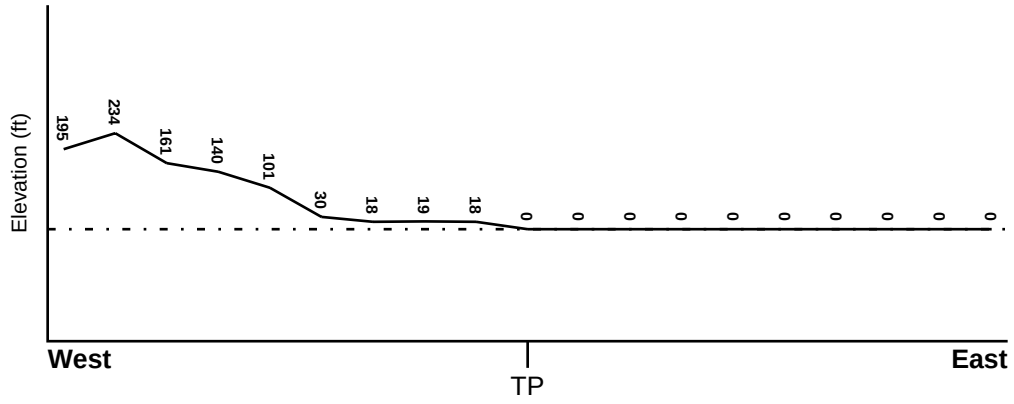
Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

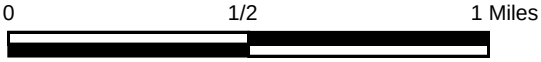
General Topographic Gradient: General East

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES





Target Property Elevation: 0 ft.



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Target Property County	FEMA Flood Electronic Data
ROCKLAND, NY	YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property:	3606930012C - FEMA Q3 Flood data
Additional Panels in search area:	36119C - FEMA DFIRM Flood data 3606930007C - FEMA Q3 Flood data 3606930008C - FEMA Q3 Flood data 3606930011C - FEMA Q3 Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
HAVERSTRAW	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

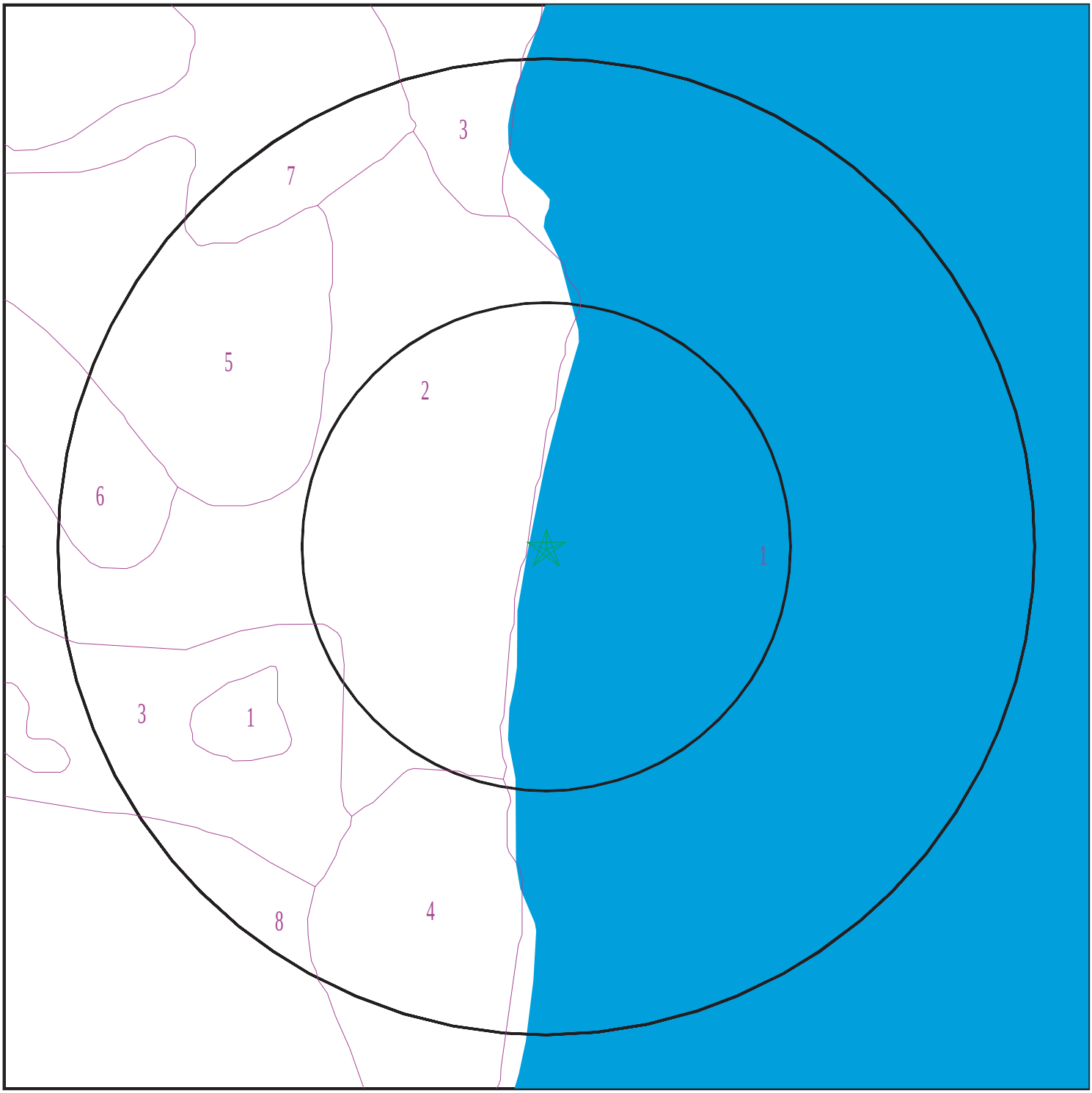
Era:	Paleozoic
System:	Ordovician
Series:	Middle Ordovician (Mohawkian)
Code:	O2 *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 4686673.2s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME: 22, 29, 31 Hudson Dr ADDRESS: 22, 29, 31 Hudson Dr Stony Point NY 10980 LAT/LONG: 41.234877 / 73.97518	CLIENT: Atzl, Scatassa, & Zigler PC Engineers CONTACT: John Szarowski INQUIRY #: 4686673.2s DATE: July 28, 2016 4:58 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Water

Soil Surface Texture:
Hydrologic Group: Not reported

Soil Drainage Class:
Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

Soil Map ID: 2

Soil Component Name: Udorthents

Soil Surface Texture: channery loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Moderately well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 61 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	20 inches	channery loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Clayey Gravel	Max: 141 Min: 0.42	Max: 7.3 Min: 4.5
2	20 inches	70 inches	very gravelly loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 42 Min: 0.42	Max: 8.4 Min: 4.5

Soil Map ID: 3

Soil Component Name: Ipswich

Soil Surface Texture: mucky peat

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Very poorly drained

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches	mucky peat	A-8	Highly organic soils, Peat.	Max: 141 Min: 4	Max: Min:
2	11 inches	40 inches	mucky peat	A-8	Highly organic soils, Peat.	Max: 141 Min: 4	Max: Min:

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
3	40 inches	59 inches	mucky peat	A-8	Highly organic soils, Peat.	Max: 141 Min: 4	Max: Min:

Soil Map ID: 4

Soil Component Name: Urban land

Soil Surface Texture:
Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class:
Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	5 inches		Not reported	Not reported	Max: 1.4 Min: 0.01	Max: Min:

Soil Map ID: 5

Soil Component Name: Yalesville

Soil Surface Texture: sandy loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 77 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 4	Max: 6 Min: 4.5
2	9 inches	27 inches	gravelly loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 4	Max: 6 Min: 4.5
3	27 inches	29 inches	extremely channery loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILIS, Gravels, Clean Gravels, Well-graded gravel. COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel.	Max: 42 Min: 14	Max: 6 Min: 4.5
4	29 inches	33 inches	unweathered bedrock	Not reported	Not reported	Max: 1.4 Min: 0	Max: Min:

Soil Map ID: 6

Soil Component Name: Udorthents

Soil Surface Texture: channery loam

Hydrologic Group: Class A/D - Drained/undrained hydrology class of soils that can be drained and are classified.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 137 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	20 inches	channery loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Clayey Gravel	Max: 141 Min: 0.42	Max: 7.3 Min: 4.5
2	20 inches	70 inches	very gravelly loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 42 Min: 0.42	Max: 8.4 Min: 4.5

Soil Map ID: 7

Soil Component Name: Yalesville

Soil Surface Texture: sandy loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 77 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 4	Max: 6 Min: 4.5
2	9 inches	27 inches	gravelly loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 4	Max: 6 Min: 4.5
3	27 inches	29 inches	extremely channery loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILIS, Gravels, Clean Gravels, Well-graded gravel. COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel.	Max: 42 Min: 14	Max: 6 Min: 4.5
4	29 inches	33 inches	unweathered bedrock	Not reported	Not reported	Max: 1.4 Min: 0	Max: Min:

Soil Map ID: 8

Soil Component Name: Hinckley

Soil Surface Texture: gravelly loamy sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	3 inches	gravelly loamy sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 6 Min: 3.6
2	3 inches	16 inches	gravelly loamy sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 6 Min: 3.6
3	16 inches	59 inches	very gravelly sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Well-graded sand.	Max: 141 Min: 141	Max: 6 Min: 3.6

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 0.001 miles
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	USGS40000841370	1/4 - 1/2 Mile WNW
2	USGS40000841233	1/2 - 1 Mile SW
A3	USGS40000841200	1/2 - 1 Mile SW
A4	USGS40000841146	1/2 - 1 Mile SW
A5	USGS40000841148	1/2 - 1 Mile SW
A6	USGS40000841147	1/2 - 1 Mile SW
A7	USGS40000841149	1/2 - 1 Mile SW
8	USGS40000841185	1/2 - 1 Mile SW
9	USGS40000841561	1/2 - 1 Mile NW

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

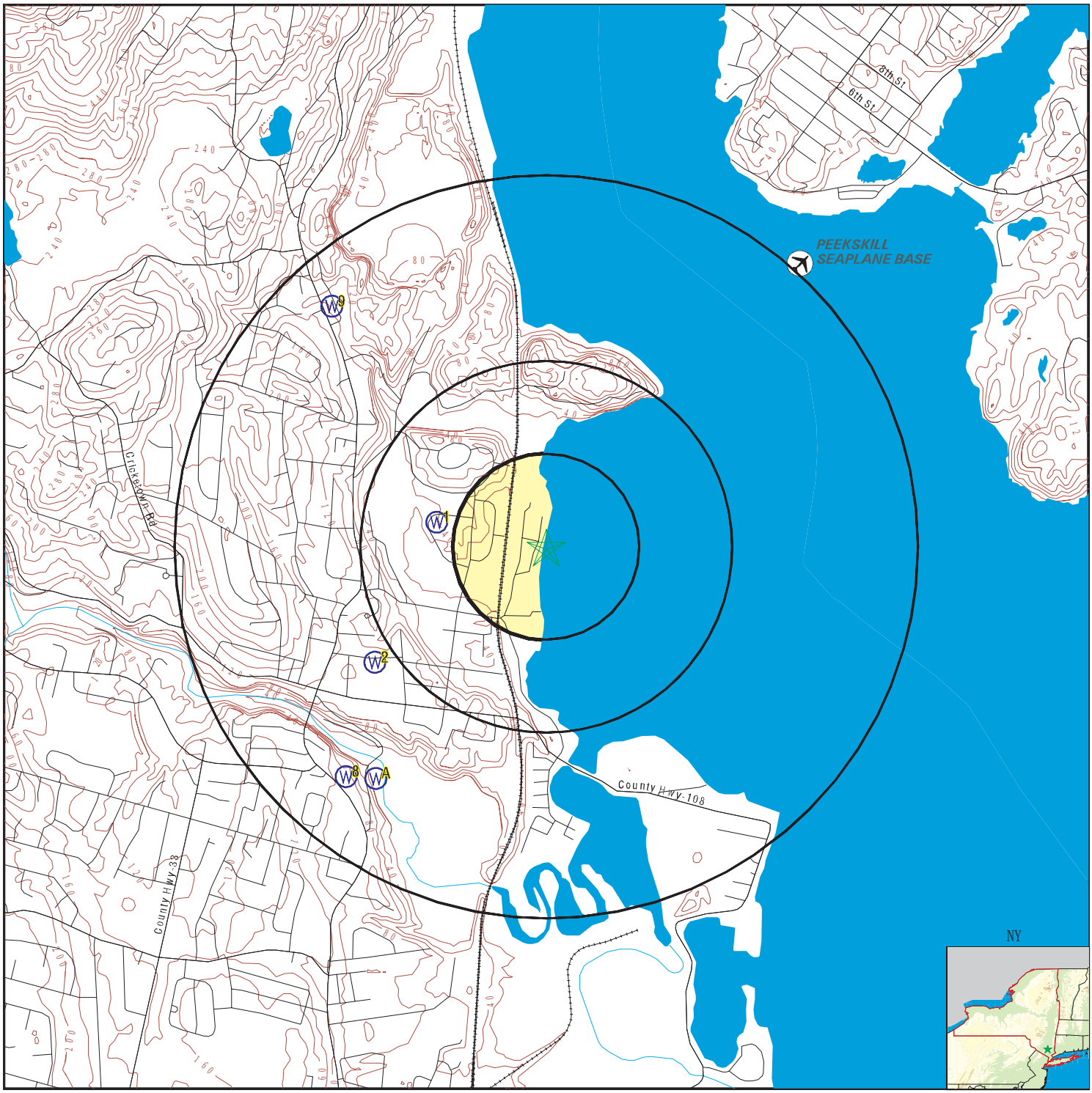
MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

PHYSICAL SETTING SOURCE MAP - 4686673.2s



County Boundary
Major Roads
Contour Lines
Airports
Earthquake epicenter, Richter 5 or greater
Water Wells
Public Water Supply Wells
Cluster of Multiple Icons

0 1/4 1/2 1 Miles

Groundwater Flow Direction
Indeterminate Groundwater Flow at Location
Groundwater Flow Varies at Location
Closest Hydrogeological Data
Oil, gas or related wells

N

SITE NAME: 22, 29, 31 Hudson Dr	CLIENT: Atzl, Scatassa, & Zigler PC Engineers
ADDRESS: 22, 29, 31 Hudson Dr Stony Point NY 10980	CONTACT: John Szarowski INQUIRY #: 4686673.2s
LAT/LONG: 41.234877 / 73.97518	DATE: July 28, 2016 4:58 pm

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Map ID Direction Distance Elevation	Database	EDR ID Number
1 **WNW** **1/4 - 1/2 Mile** **Higher**	**FED USGS**	**USGS40000841370**

Org. Identifier:	USGS-NY		
Formal name:	USGS New York Water Science Center		
Monloc Identifier:	USGS-411409073585101		
Monloc name:	RO1761		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	Not Reported	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	41.2358333
Longitude:	-73.9808333	Sourcemap scale:	Not Reported
Horiz Acc measure:	3	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from Digital Map		
Horiz coord refsys:	NAD83	Vert measure val:	Not Reported
Vert measure units:	Not Reported	Vertacc measure val:	Not Reported
Vert accmeasure units:	Not Reported		
Vertcollection method:	Not Reported		
Vert coord refsys:	Not Reported	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	20000424	Welldepth:	185
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

---

2 **SW** **1/2 - 1 Mile** **Higher**	**FED USGS**	**USGS40000841233**

Org. Identifier:	USGS-NY		
Formal name:	USGS New York Water Science Center		
Monloc Identifier:	USGS-411349073590401		
Monloc name:	RO 397		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	02030101	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	41.230372
Longitude:	-73.984029	Sourcemap scale:	24000
Horiz Acc measure:	10	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	110.00
Vert measure units:	feet	Vertacc measure val:	10
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Sand and gravel aquifers (glaciated regions)		
Formation type:	Sand and Gravel		

Aquifer type:	Not Reported		
Construction date:	1900	Welldepth:	22
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

A3
SW
1/2 - 1 Mile
Higher

FED USGS **USGS40000841200**

Org. Identifier:	USGS-NY		
Formal name:	USGS New York Water Science Center		
Monloc Identifier:	USGS-411342073590101		
Monloc name:	RO 468		
Monloc type:	Well		
Monloc desc:	LAT/LONG UPDATED JAN 2007		
Huc code:	02030101	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	41.2258389
Longitude:	-73.9839583	Sourcemap scale:	24000
Horiz Acc measure:	.1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	15.00
Vert measure units:	feet	Vertacc measure val:	10
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Early Mesozoic basin aquifers		
Formation type:	Newark Group		
Aquifer type:	Not Reported		
Construction date:	1955	Welldepth:	220
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

A4
SW
1/2 - 1 Mile
Higher

FED USGS **USGS40000841146**

Org. Identifier:	USGS-NY		
Formal name:	USGS New York Water Science Center		
Monloc Identifier:	USGS-411333073590201		
Monloc name:	RO 598		
Monloc type:	Well: Test hole not completed as a well		
Monloc desc:	Not Reported		
Huc code:	Not Reported	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	41.2258389
Longitude:	-73.9839722	Sourcemap scale:	24000
Horiz Acc measure:	.1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	Not Reported
Vert measure units:	Not Reported	Vertacc measure val:	Not Reported
Vert accmeasure units:	Not Reported		
Vertcollection method:	Not Reported		
Vert coord refsys:	Not Reported	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		

Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	130
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

A5
SW
1/2 - 1 Mile
Higher

FED USGS **USGS40000841148**

Org. Identifier:	USGS-NY		
Formal name:	USGS New York Water Science Center		
Monloc Identifier:	USGS-411333073590203		
Monloc name:	RO 600		
Monloc type:	Well: Test hole not completed as a well		
Monloc desc:	Not Reported		
Huc code:	Not Reported	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	41.2258389
Longitude:	-73.9839861	Sourcemap scale:	24000
Horiz Acc measure:	.1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	Not Reported
Vert measure units:	Not Reported	Vertacc measure val:	Not Reported
Vert accmeasure units:	Not Reported		
Vertcollection method:	Not Reported		
Vert coord refsys:	Not Reported	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	200
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

A6
SW
1/2 - 1 Mile
Higher

FED USGS **USGS40000841147**

Org. Identifier:	USGS-NY		
Formal name:	USGS New York Water Science Center		
Monloc Identifier:	USGS-411333073590202		
Monloc name:	RO 599		
Monloc type:	Well: Test hole not completed as a well		
Monloc desc:	Not Reported		
Huc code:	Not Reported	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	41.2258389
Longitude:	-73.9839861	Sourcemap scale:	24000
Horiz Acc measure:	.1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	Not Reported
Vert measure units:	Not Reported	Vertacc measure val:	Not Reported
Vert accmeasure units:	Not Reported		
Vertcollection method:	Not Reported		
Vert coord refsys:	Not Reported	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		

Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	154
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

A7
SW
1/2 - 1 Mile
Higher

FED USGS **USGS40000841149**

Org. Identifier:	USGS-NY		
Formal name:	USGS New York Water Science Center		
Monloc Identifier:	USGS-411333073590204		
Monloc name:	RO 601		
Monloc type:	Well: Test hole not completed as a well		
Monloc desc:	Not Reported		
Huc code:	Not Reported	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	41.2258306
Longitude:	-73.9839861	Sourcemap scale:	24000
Horiz Acc measure:	.1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	Not Reported
Vert measure units:	Not Reported	Vertacc measure val:	Not Reported
Vert accmeasure units:	Not Reported		
Vertcollection method:	Not Reported		
Vert coord refsys:	Not Reported	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	235
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

8
SW
1/2 - 1 Mile
Higher

FED USGS **USGS40000841185**

Org. Identifier:	USGS-NY		
Formal name:	USGS New York Water Science Center		
Monloc Identifier:	USGS-411340073591801		
Monloc name:	RO 339		
Monloc type:	Well		
Monloc desc:	LAT/LONG UPDATED JAN 2007		
Huc code:	02030101	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	41.2259083
Longitude:	-73.9855194	Sourcemap scale:	24000
Horiz Acc measure:	.1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	120.00
Vert measure units:	feet	Vertacc measure val:	10
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Early Mesozoic basin aquifers		
Formation type:	Newark Group		

Aquifer type:	Not Reported		
Construction date:	1949	Welldepth:	125
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

9
NW
1/2 - 1 Mile
Higher

FED USGS **USGS40000841561**

Org. Identifier:	USGS-NY		
Formal name:	USGS New York Water Science Center		
Monloc Identifier:	USGS-411439073591201		
Monloc name:	RO 296		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	02030101	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	41.2442607
Longitude:	-73.9862515	Sourcemap scale:	24000
Horiz Acc measure:	10	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	120.00
Vert measure units:	feet	Vertacc measure val:	10
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Bedrock		
Aquifer type:	Not Reported		
Construction date:	1956	Welldepth:	100
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: NY Radon

Radon Test Results

County	Town	Num Tests	Avg Result	Geo Mean	Max Result
ROCKLAND	CLARKSTOWN	1,023	2.11	1.33	75.4
ROCKLAND	HAVERSTRAW	140	2.89	1.93	14.8
ROCKLAND	ORANGETOWN	399	2.23	1.4	123.7
ROCKLAND	RAMAPO	691	2.54	1.65	26.6
ROCKLAND	STONY POINT	208	5.32	2.68	68.5

Federal EPA Radon Zone for ROCKLAND County: 3

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for ROCKLAND COUNTY, NY

Number of sites tested: 195

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area	0.880 pCi/L	94%	3%	3%
Basement	1.340 pCi/L	91%	9%	1%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Freshwater Wetlands
Source: Department of Environmental Conservation
Telephone: 518-402-8961

HYDROGEOLOGIC INFORMATION

AQUIFLOW[R] Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

New York Public Water Wells
Source: New York Department of Health
Telephone: 518-458-6731

OTHER STATE DATABASE INFORMATION

Oil and Gas Well Database
Department of Environmental Conservation
Telephone: 518-402-8072
These files contain records, in the database, of wells that have been drilled.

RADON

State Database: NY Radon
Source: Department of Health
Telephone: 518-402-7556
Radon Test Results

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

PHYSICAL SETTING SOURCE RECORDS SEARCHED

STREET AND ADDRESS INFORMATION

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APPENDIX C

HISTORIC PHOTOGRAPHS

22, 29, 31 Hudson Dr

22, 29, 31 Hudson Dr

Stony Point, NY 10980

Inquiry Number: 4686673.12

July 29, 2016

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

07/29/16

Site Name:

22, 29, 31 Hudson Dr
22, 29, 31 Hudson Dr
Stony Point, NY 10980
EDR Inquiry # 4686673.12

Client Name:

Atzl, Scatassa, & Zigler PC Engineers
234 North Main Street
New City, NY 10956
Contact: John Szarowski

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

Year	Scale	Details	Source
2011	1"=500'	Flight Year: 2011	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2006	1"=500'	Flight Year: 2006	USDA/NAIP
1994	1"=500'	Acquisition Date: April, 04 1994	USGS/DOQQ
1984	1"=500'	Flight Date: March, 26 1984	USDA
1975	1"=500'	Flight Date: July, 29 1975	USDA
1964	1"=500'	Flight Date: March, 23 1964	USGS
1957	1"=500'	Flight Date: March, 24 1957	jack
1953	1"=500'	Flight Date: April, 15 1953	USGS
1940	1"=500'	Flight Date: April, 06 1940	EDR Proprietary Aerial Viewpoint

When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.

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INQUIRY #: 4686673.12

YEAR: 2011

= 500'

N

EDR

INQUIRY #: 4686673.12

YEAR: 2009

= 500'

N

EDR

INQUIRY #: 4686673.12

YEAR: 2006

= 500'

N

EDR

INQUIRY #: 4686673.12

YEAR: 1994

= 500'

N

EDR

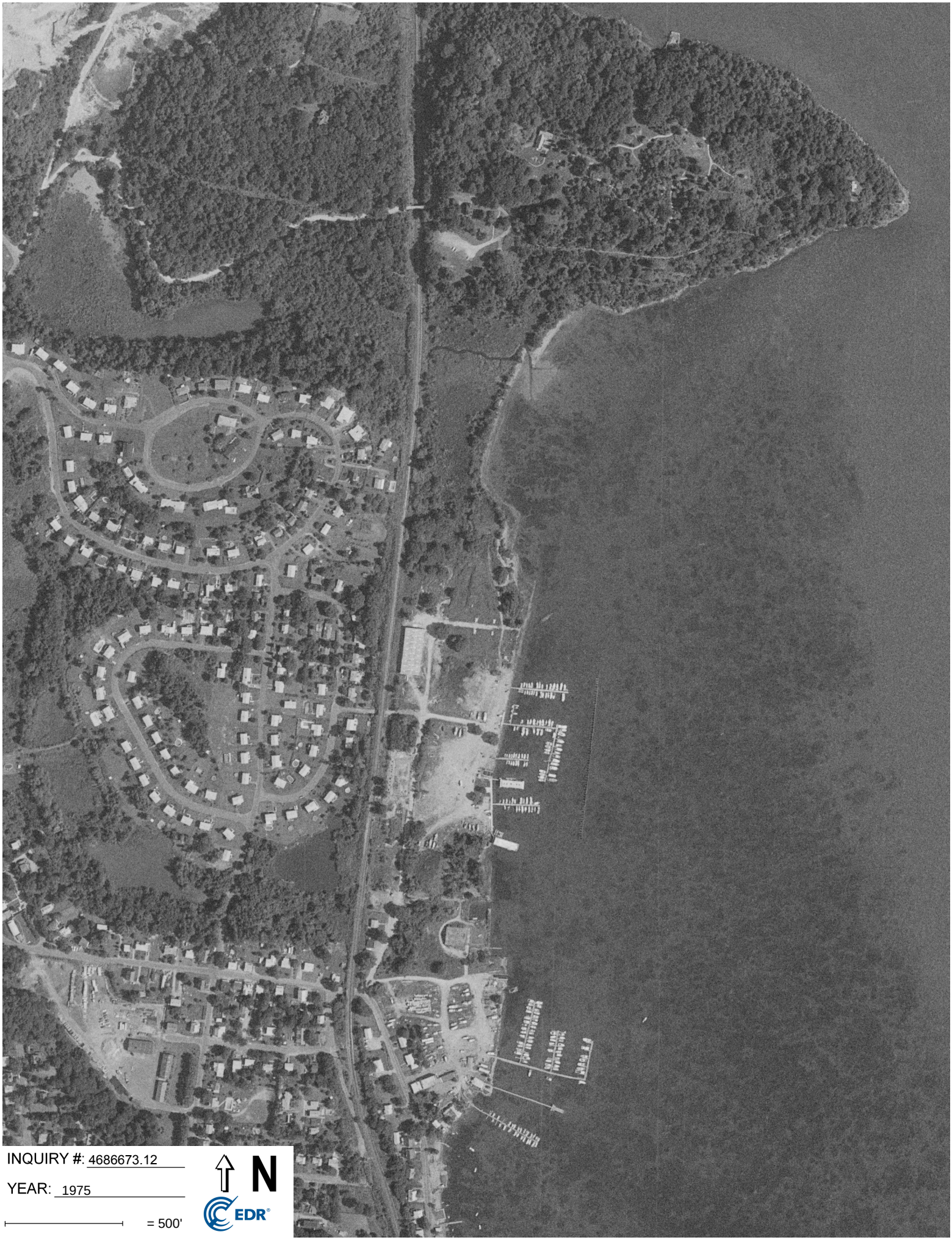
INQUIRY #: 4686673.12

YEAR: 1984

= 500'

N

EDR



INQUIRY #: 4686673.12

YEAR: 1975

= 500'

N

EDR

INQUIRY #: 4686673.12

YEAR: 1964

= 500'

N

EDR

INQUIRY #: 4686673.12

YEAR: 1957

= 500'

N

EDR

INQUIRY #: 4686673.12

YEAR: 1957

= 500'

N

EDR

INQUIRY #: 4686673.12

YEAR: 1953

= 500'

N

EDR

22, 29, 31 Hudson Dr

22, 29, 31 Hudson Dr

Stony Point, NY 10980

Inquiry Number: 4686673.3

July 28, 2016

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

07/28/16

Site Name:	Client Name:
22, 29, 31 Hudson Dr	Atzl, Scatassa, & Zigler PC Engineers
22, 29, 31 Hudson Dr	234 North Main Street
Stony Point, NY 10980	New City, NY 10956
EDR Inquiry # 4686673.3	Contact: John Szarowski

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The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # 3B1E-4C3C-A462

PO # 1407

Project Breakers

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

Sanborn® Library search results

Certification #: 3B1E-4C3C-A462

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- ✔ Library of Congress
- ✔ University Publications of America
- ✔ EDR Private Collection

The Sanborn Library LLC Since 1866™

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APPENDIX D

HISTORIC TOPOGRAPHIC MAPS

22, 29, 31 Hudson Dr

22, 29, 31 Hudson Dr

Stony Point, NY 10980

Inquiry Number: 4686673.4

July 28, 2016

EDR Historical Topo Map Report

with QuadMatch™

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Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

07/28/16

Site Name:	Client Name:
22, 29, 31 Hudson Dr	Atzl, Scatassa, & Zigler PC Engineers
22, 29, 31 Hudson Dr	234 North Main Street
Stony Point, NY 10980	New City, NY 10956
EDR Inquiry # 4686673.4	Contact: John Szarowski

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Atzl, Scatassa, & Zigler PC Engineers were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:

P.O.# 1407

Project: Breakers

Coordinates:

Latitude:	41.234877 41° 14' 6" North
Longitude:	-73.97518 -73° 58' 31" West
UTM Zone:	Zone 18 North
UTM X Meters:	585882.85
UTM Y Meters:	4565337.47
Elevation:	0.93' above sea level

Maps Provided:

2013
1979, 1981
1967
1955, 1957
1943
1938
1901, 1902
1893, 1894
1892

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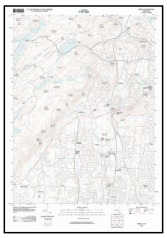
Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

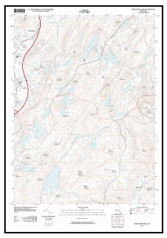
2013 Source Sheets

Peekskill
2013
7.5-minute, 24000

Haverstraw
2013
7.5-minute, 24000



Thiells
2013
7.5-minute, 24000



Popolopen Lake
2013
7.5-minute, 24000

1979, 1981 Source Sheets

Haverstraw
1979
7.5-minute, 24000
Aerial Photo Revised 1964
Edited 1979

Peekskill
1981
7.5-minute, 24000
Photo Revised 1981
Aerial Photo Revised 1976

Popolopen Lake
1981
7.5-minute, 24000
Photo Revised 1981
Aerial Photo Revised 1976

1967 Source Sheets

Haverstraw
1967
7.5-minute, 24000
Aerial Photo Revised 1964

1955, 1957 Source Sheets

Thiells
1955
7.5-minute, 24000
Aerial Photo Revised 1952

Haverstraw
1955
7.5-minute, 24000
Photo Revised 1955
Aerial Photo Revised 1938

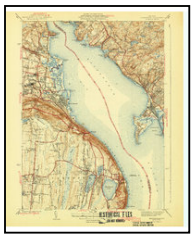
Peekskill
1957
7.5-minute, 24000
Aerial Photo Revised 1955

Popolopen Lake
1957
7.5-minute, 24000
Aerial Photo Revised 1956

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1943 Source Sheets

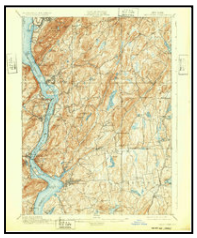


Haverstraw
1943
7.5-minute, 31680

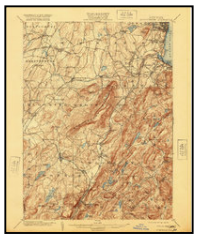
1938 Source Sheets

Haverstraw
1938
7.5-minute, 24000

1901, 1902 Source Sheets



West Point
1901
15-minute, 62500



Schunemunk
1902
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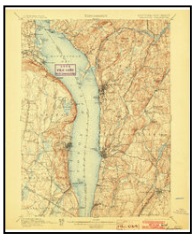


Tarrytown
1902
15-minute, 62500

1893, 1894 Source Sheets

Tarrytown
1893
15-minute, 62500

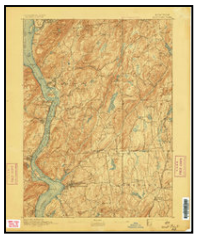
Ramapo
1893
15-minute, 62500

West Point
1894
15-minute, 62500

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1892 Source Sheets



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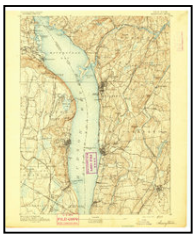
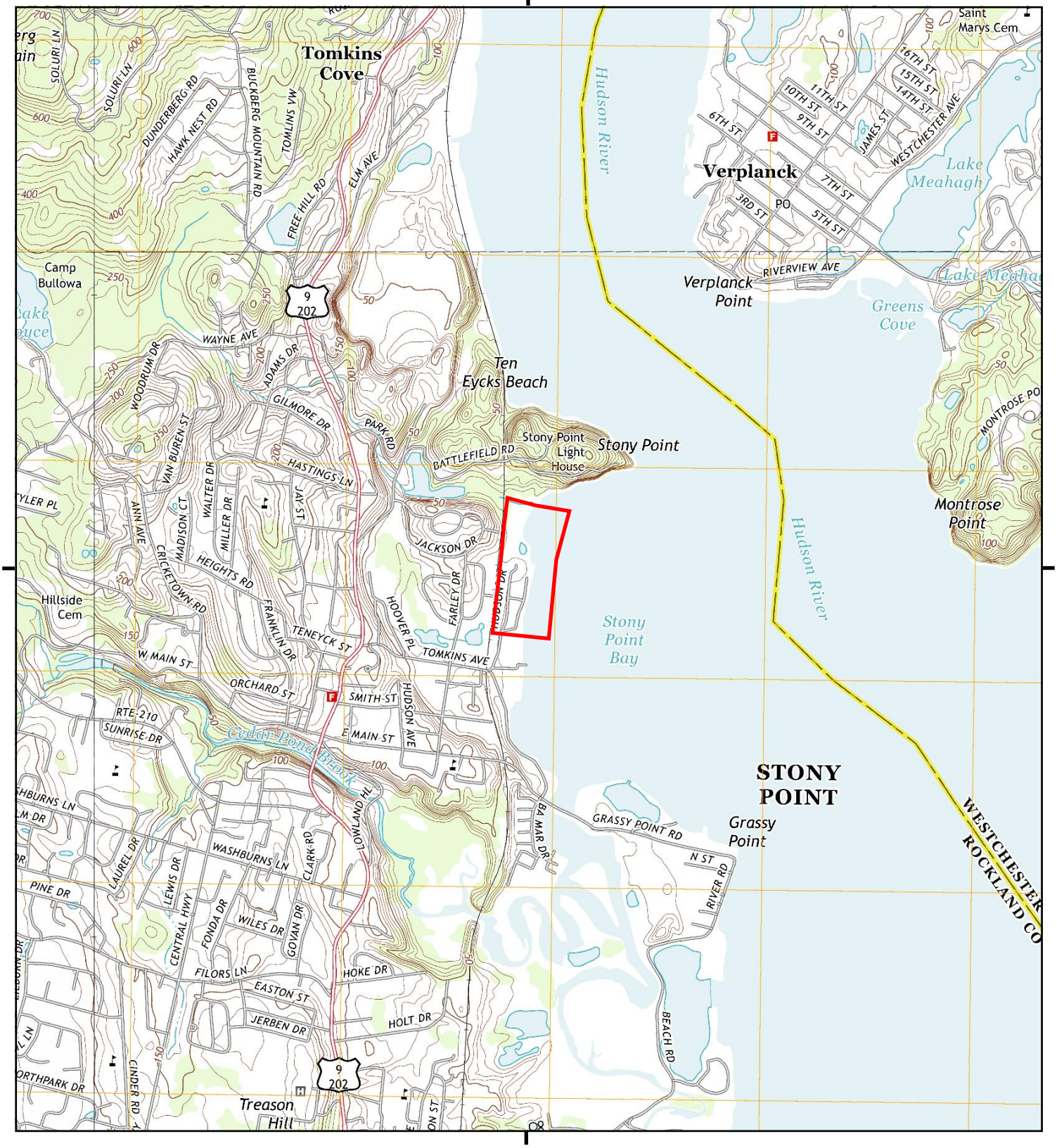
1892
15-minute, 62500



Tarrytown
1892
15-minute, 62500

Historical Topo Map

2013



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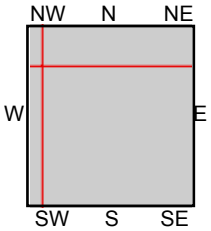

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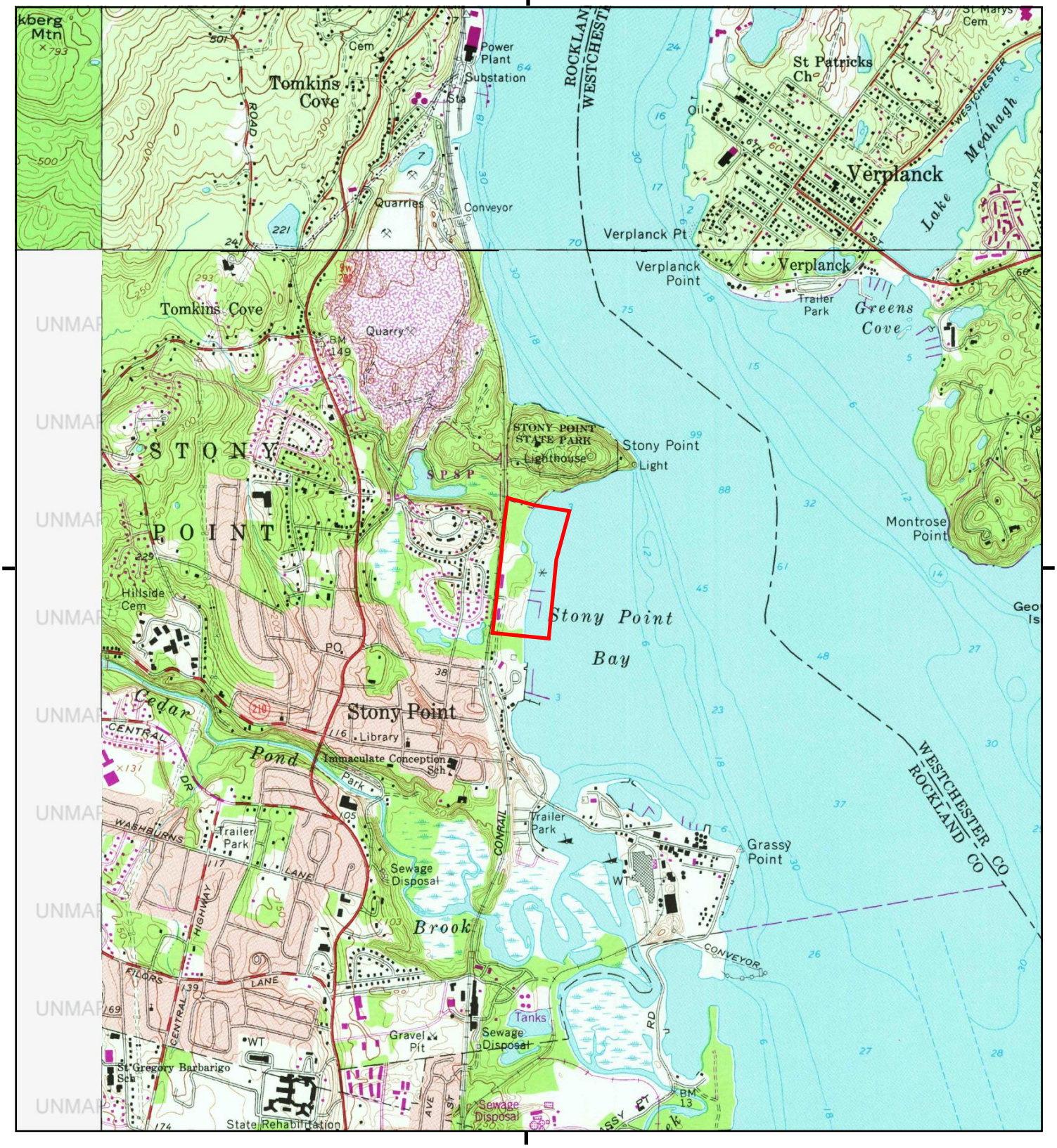
N, Peekskill, 2013, 7.5-minute
SW, Thiells, 2013, 7.5-minute
NW, Popolopen Lake, 2013, 7.5-minute

SITE NAME: 22, 29, 31 Hudson Dr
ADDRESS: 22, 29, 31 Hudson Dr
Stony Point, NY 10980
CLIENT: Atzl, Scatassa, & Zigler PC Engineers

N

Historical Topo Map

1979, 1981



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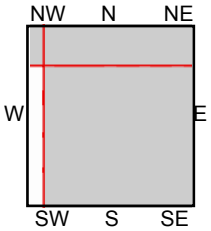

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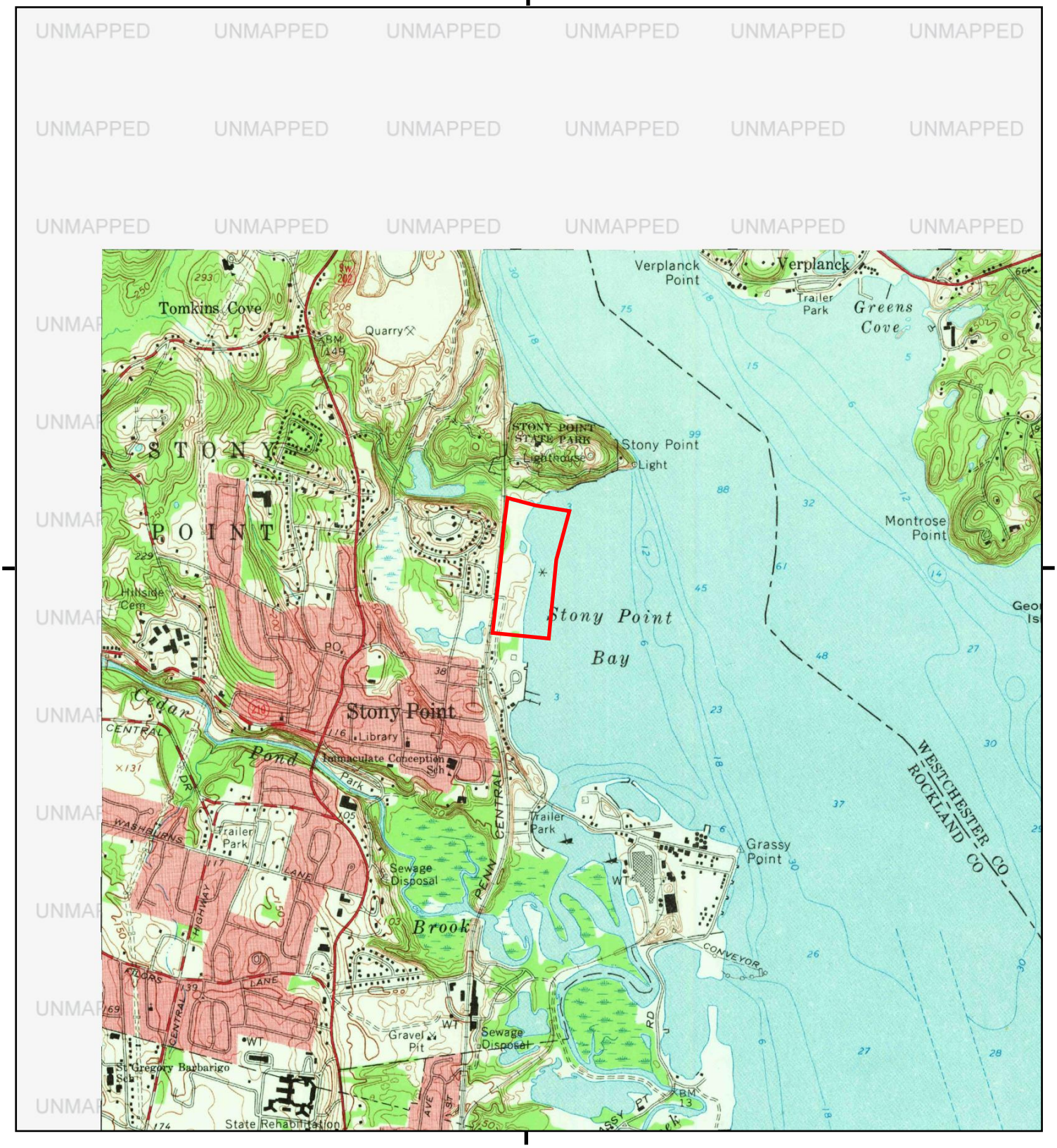
SITE NAME: 22, 29, 31 Hudson Dr
ADDRESS: 22, 29, 31 Hudson Dr
Stony Point, NY 10980
CLIENT: Atzl, Scatassa, & Zigler PC Engineers

N

Historical Topo Map

1967



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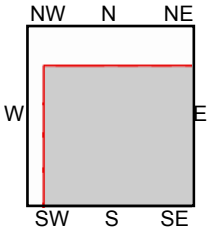

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SITE NAME: 22, 29, 31 Hudson Dr
ADDRESS: 22, 29, 31 Hudson Dr
Stony Point, NY 10980
CLIENT: Atzl, Scatassa, & Zigler PC Engineers

N

Historical Topo Map

1955, 1957

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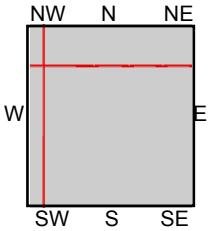

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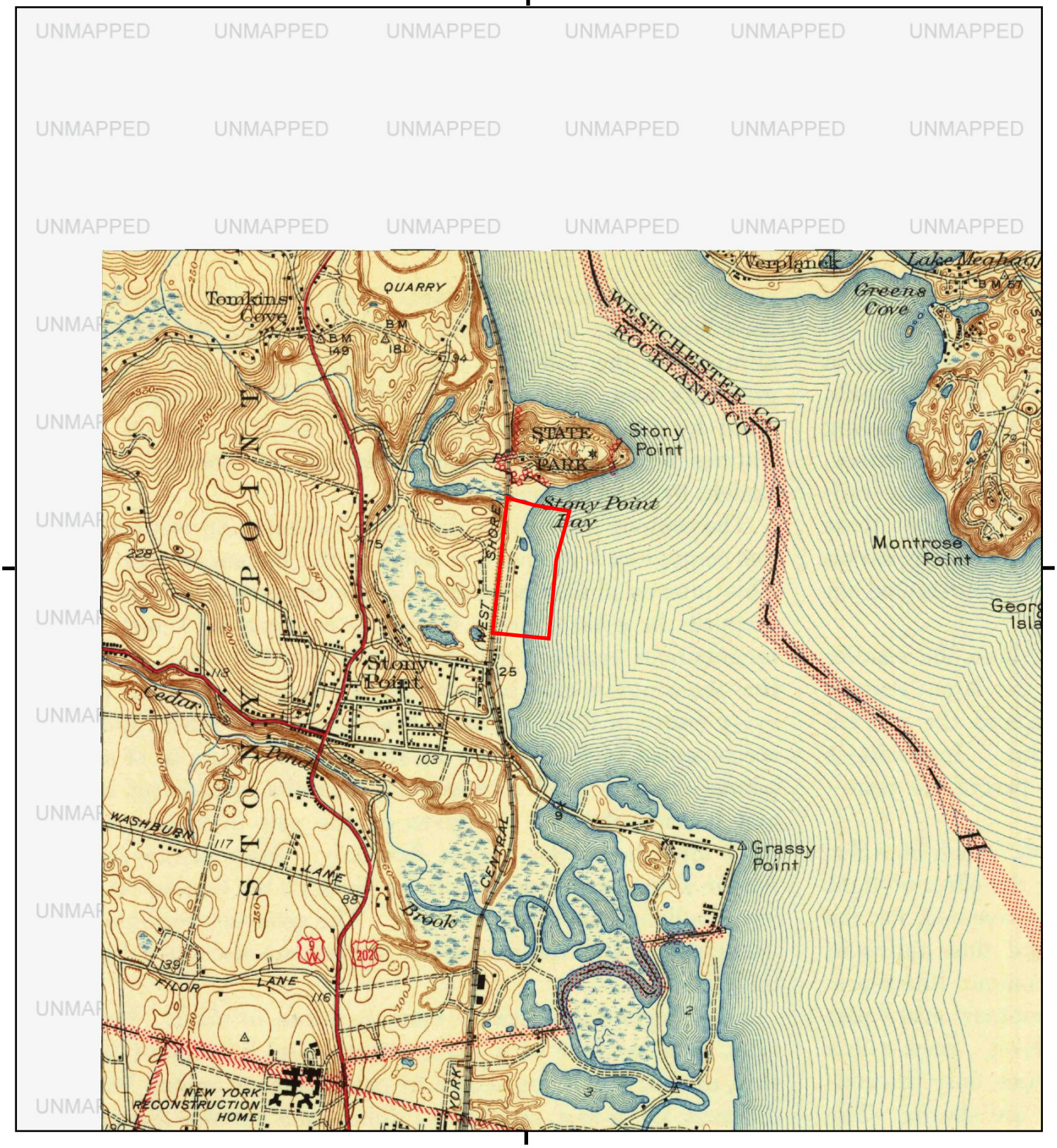
SW, Thiells, 1955, 7.5-minute
NW, Popolopen Lake, 1957, 7.5-minute

SITE NAME: 22, 29, 31 Hudson Dr
ADDRESS: 22, 29, 31 Hudson Dr
Stony Point, NY 10980
CLIENT: Atzl, Scatassa, & Zigler PC Engineers

N

Historical Topo Map

1943



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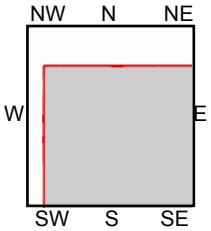

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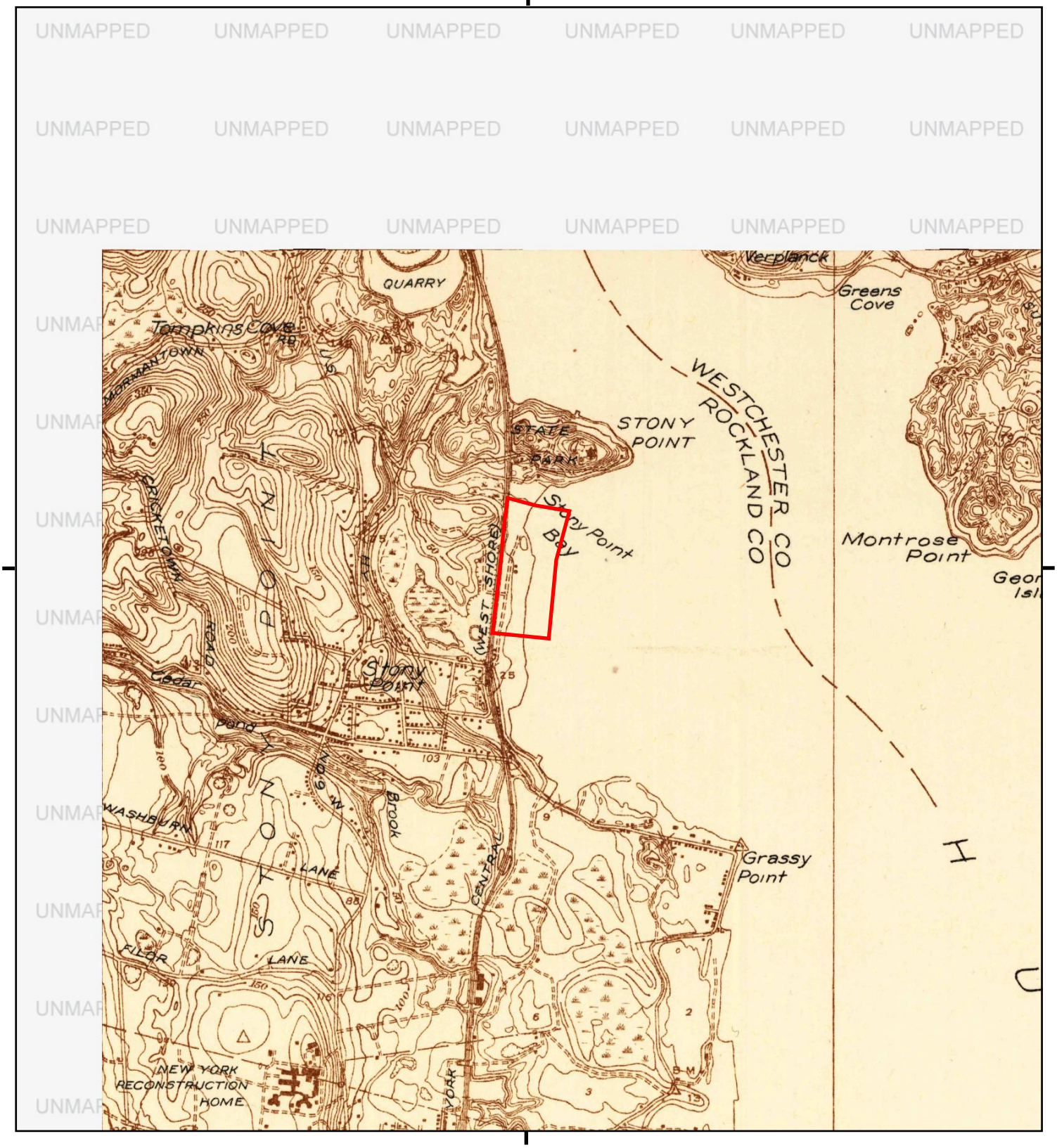
Stony Point, NY 10980
CLIENT: Atzl, Scatassa, & Zigler PC Engineers

N

Historical Topo Map

1938



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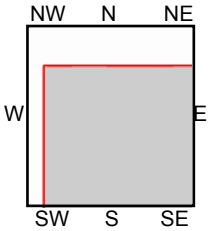

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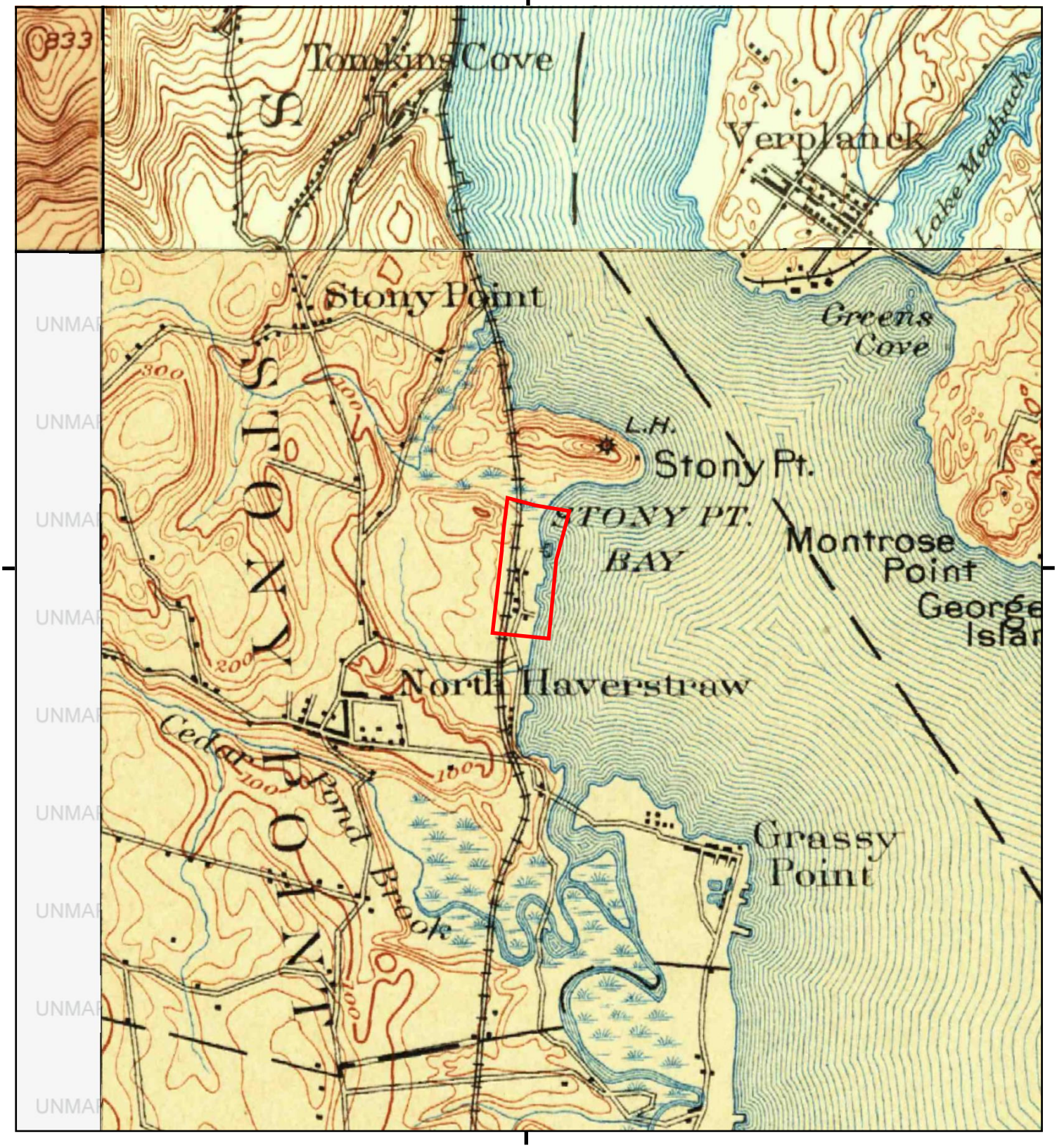
SITE NAME: 22, 29, 31 Hudson Dr
ADDRESS: 22, 29, 31 Hudson Dr
Stony Point, NY 10980
CLIENT: Atzl, Scatassa, & Zigler PC Engineers

N

Historical Topo Map

1901, 1902



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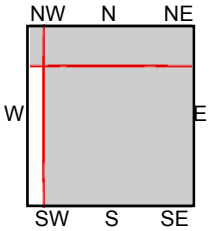

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NE, West Point, 1901, 15-minute
NW, Schunemunk, 1902, 15-minute

SITE NAME: 22, 29, 31 Hudson Dr
ADDRESS: 22, 29, 31 Hudson Dr
Stony Point, NY 10980
CLIENT: Atzl, Scatassa, & Zigler PC Engineers

N

Historical Topo Map

1893, 1894

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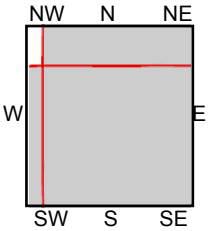

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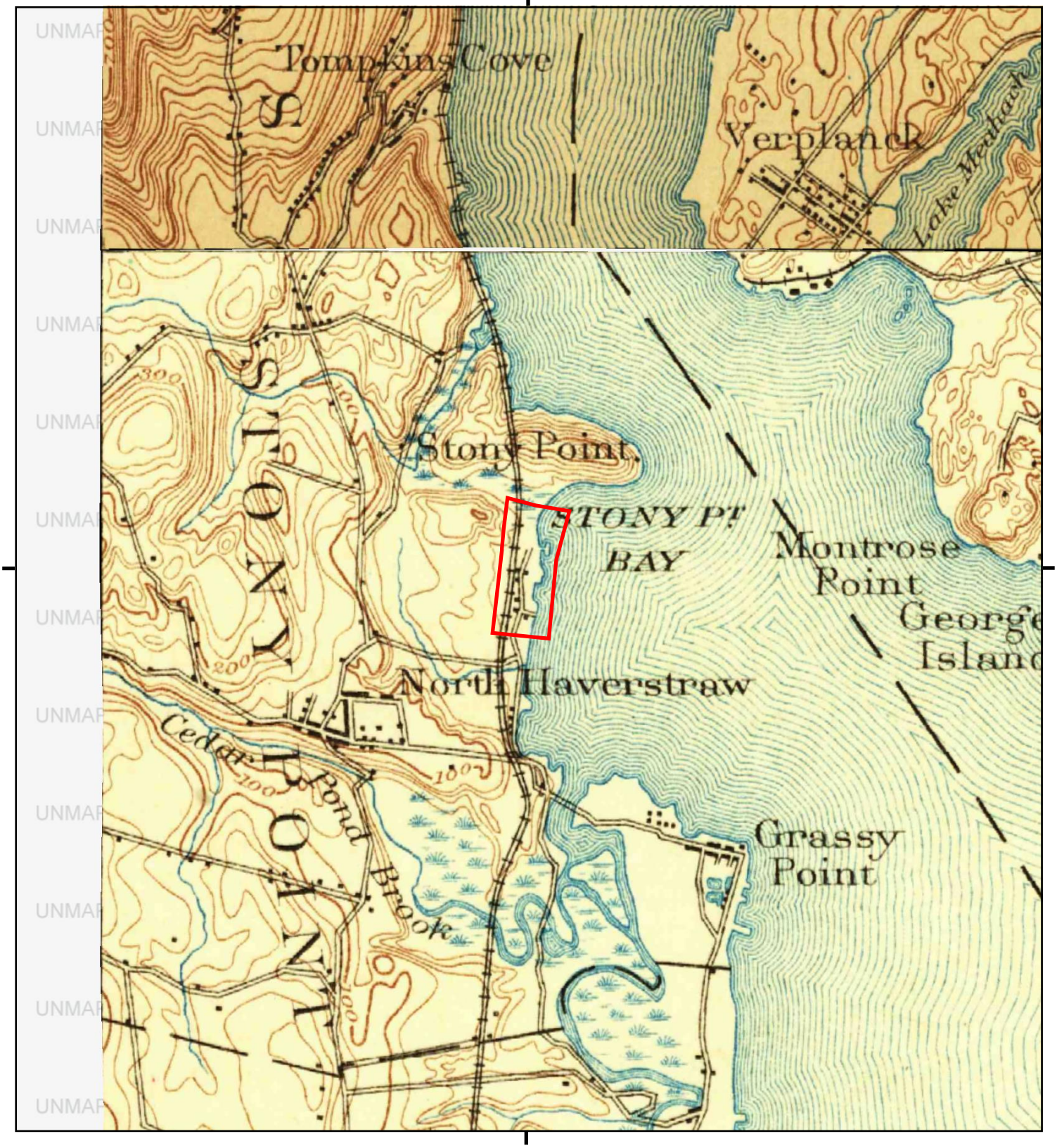
SITE NAME: 22, 29, 31 Hudson Dr
ADDRESS: 22, 29, 31 Hudson Dr
Stony Point, NY 10980
CLIENT: Atzl, Scatassa, & Zigler PC Engineers

N

Historical Topo Map

1892



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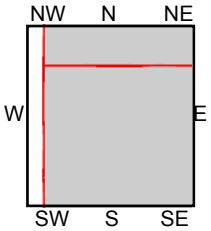

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SITE NAME: 22, 29, 31 Hudson Dr
ADDRESS: 22, 29, 31 Hudson Dr
Stony Point, NY 10980
CLIENT: Atzl, Scatassa, & Zigler PC Engineers

N

22, 29, 31 Hudson Dr

22, 29, 31 Hudson Dr

Stony Point, NY 10980

Inquiry Number: 4686673.12

July 29, 2016

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

07/29/16

Site Name:

22, 29, 31 Hudson Dr
22, 29, 31 Hudson Dr
Stony Point, NY 10980
EDR Inquiry # 4686673.12

Client Name:

Atzl, Scatassa, & Zigler PC Engineers
234 North Main Street
New City, NY 10956
Contact: John Szarowski

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

Year	Scale	Details	Source
2011	1"=500'	Flight Year: 2011	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2006	1"=500'	Flight Year: 2006	USDA/NAIP
1994	1"=500'	Acquisition Date: April, 04 1994	USGS/DOQQ
1984	1"=500'	Flight Date: March, 26 1984	USDA
1975	1"=500'	Flight Date: July, 29 1975	USDA
1964	1"=500'	Flight Date: March, 23 1964	USGS
1957	1"=500'	Flight Date: March, 24 1957	jack
1953	1"=500'	Flight Date: April, 15 1953	USGS
1940	1"=500'	Flight Date: April, 06 1940	EDR Proprietary Aerial Viewpoint

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INQUIRY #: 4686673.12

YEAR: 2011

= 500'

N

EDR

INQUIRY #: 4686673.12

YEAR: 2009

= 500'

N

EDR

INQUIRY #: 4686673.12

YEAR: 2006

= 500'

N

EDR

INQUIRY #: 4686673.12

YEAR: 1994

= 500'

N

EDR

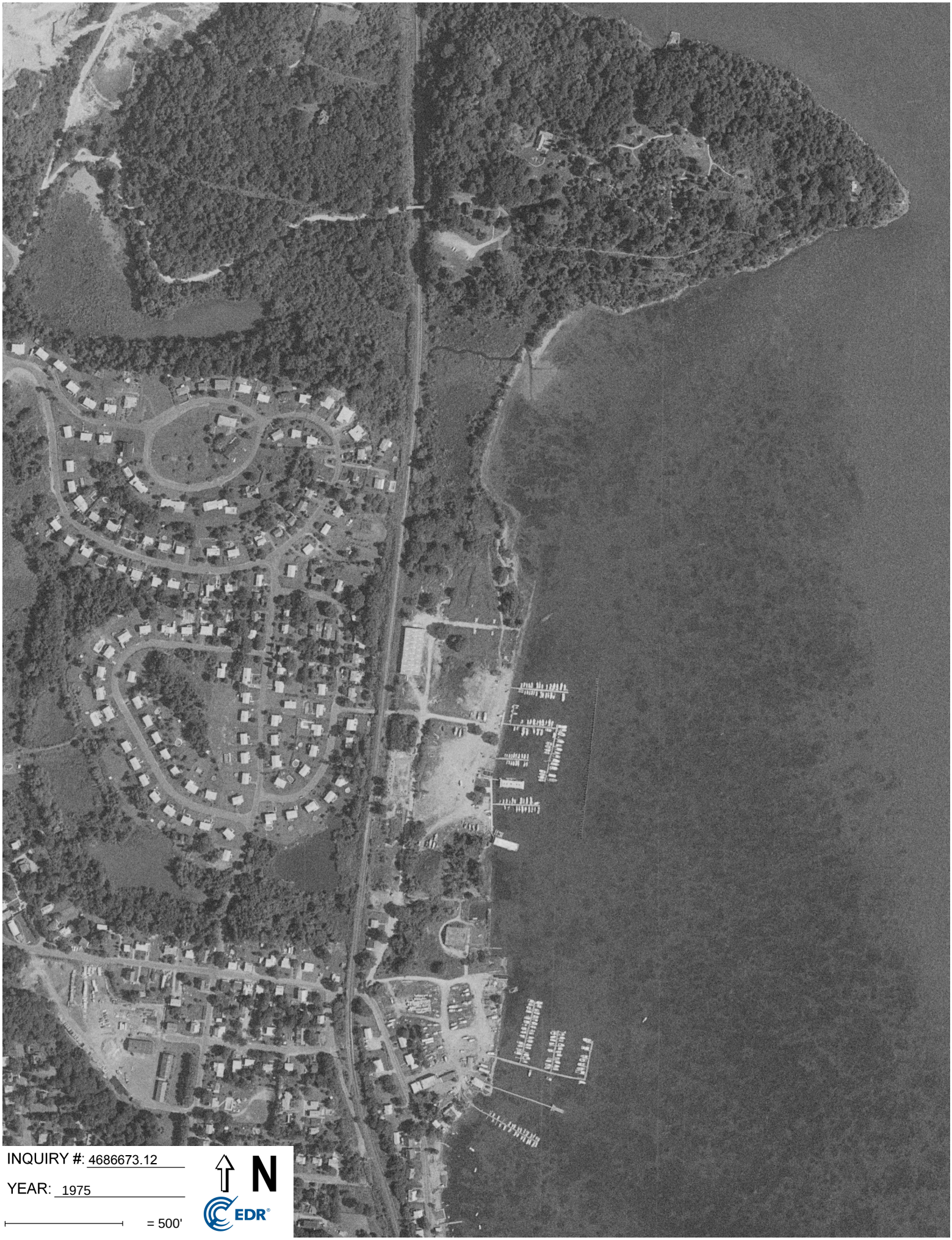
INQUIRY #: 4686673.12

YEAR: 1984

= 500'

N

EDR



INQUIRY #: 4686673.12

YEAR: 1975

= 500'

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EDR

INQUIRY #: 4686673.12

YEAR: 1964

= 500'

N

EDR

INQUIRY #: 4686673.12

YEAR: 1957

= 500'

N

EDR

INQUIRY #: 4686673.12

YEAR: 1957

= 500'

N

EDR

INQUIRY #: 4686673.12

YEAR: 1953

= 500'

N

EDR

INQUIRY #: 4686673.12

YEAR: 1940

= 500'

N

EDR

APPENDIX M - APPENDIX P (VOLUME II)

EAGLE BAY MIXED USE DEVELOPMENT
TOWN OF STONY POINT
ROCKLAND COUNTY, NY

Project Tax ID: 15.04-6-3; 15.04-6-4; 15.04-6-6

Lead Agency: Stony Point Planning Board
74 East Main Street,
Stony Point NY - 10980

AN&Z

DECEMBER 11, 2019

Deadline to receive written comments on the DEIS is February 14, 2020.

Appendix M: Palisades Interstate Park Commission Correspondence

Office of Parks Recreation & Historic Preservation
Palisades Interstate Park Commission
Administration Building
3006 Seven Lakes Drive
PO Box 427
Bear Mountain, NY 10911-0427
Tel: 845-786-2701
Fax: 845-786-2776

Michael Teslk
Capital Facilities Regional Manager I
Telephone: 845-786-2701 x 226
Fax: 845-786-5367

August 3, 2018

Tom Gubitosa, Chairman
Town Hall 74 East Main Street
Stony Point, New York 10980

Re: Eagle Bay
Mixed-Use Waterfront Development - DEIS

Mr. Gubitosa:

The Palisades Interstate Park Commission (PIPC) has reviewed the Draft Scoping Document and the concept plan prepared by Atzl, Nasher & Zigler P.C., last revised 6/15/2018, for the above referenced proposal. We provide the following comments for your consideration.

In a letter dated Feb. 8, 2016, the PIPC provided comments for the previous development proposal for this site named "The Breakers". PIPC voiced concerns related to impacts to Stony Point Battlefield State Historic Site.

On June 24th, 2016 a site visit to Stony Point Battlefield was conducted with Donna Holmqvist, Director of Planning Services for Atzl Nasher & Zigler. Below is the summary provided by Ms. Holmqvist, in her email dated June 24th, 2016.

I understand the focus of the PIPC as follows:

1. *Battlefield/Lighthouse Activity Southern Orientation. You indicated the majority of activity/events occur on the southern side of the museum. You indicated aging trees, invasive species and vines have curtailed tree cover on the south slope of the site. Although there are plans to add trees (if possible), views southward are important to PIPC.*

2. *Nature Conservation/Observation. You indicated a Bald Eagle nest has been on the Battlefield site since at least 2008 and there is ongoing nesting activity. You indicated the Lower Trail (aka "Coast Guard Road"), is used for guided nature walks and nature observation, including Bird Watching.*

3. *Kayak Area. This is south of the Lower Trail and at the water's edge. PIPC is concerned about negative impacts on this area from nearby development (noise, light pollution, refuse). The issue of noise and light pollution also relates to impacts on night time cultural/historic events at the Battlefield (Lantern Tours, etc).*

4. *Project Height and Mass. PIPC indicated a desire for photo simulation of the proposed project to enable an assessment of visual impacts.*

PIPC indicated that the idea of a Land Trail connecting the Stony Point Waterfront area directly to the Battlefield Site/Kayak Water Trail is viewed as problematic.

The concerns raised by the PIPC at that time still apply to the Eagle Bay proposal. Any Environmental Analysis or review should address these same concerns. The PIPC agrees there is the potential for a trail connection, however any connection would need to control access to the State Historic Site.

Thank you for providing us with the opportunity to review and comment on this proposal. We look forward to providing further comments as this project moves through the review process.

Sincerely,

Karl B. Roecker
Senior Landscape Architect
Palisades Interstate Park Commission

cc: Jim Hall, PIPC .
Julia Warger, OPRHP
Rockland County Planning Dept.

Appendix N: Traffic Impact Study

Engineers Planners Surveyors Landscape Architects Environmental Scientists

MASER CONSULTING P. A.

Traffic Impact Study

Eagle Bay

Town of Stony Point, Rockland County, New York

August 2, 2019

Prepared For

Mr. Joe Herskowitz
Breakers Stony Point, LLP
9 Eastview Road
Monsey, NY 10952

Prepared By

Maser Consulting P.A.
400 Columbus Avenue, Suite 180E
Valhalla, NY 10595
914.347.7500

Philip J. Grealy, Ph.D., P.E., Principal/Dept. Manager
License No. 59858

Ronald P. Rieman, Project Manager

MC Project No. 18005404A

www.maserconsulting.com

TABLE OF CONTENTS **PAGE NO.**

I. INTRODUCTION 1

A. PROJECT DESCRIPTION AND LOCATION 1

B. SCOPE OF STUDY 1

II. EXISTING ROADWAY AND TRAFFIC DESCRIPTIONS 3

A. DESCRIPTION OF EXISTING ROADWAYS 3

B. DESCRIPTION OF EXISTING PUBLIC TRANSPORTATION 5

C. YEAR 2018 EXISTING TRAFFIC AND PEDESTRIAN VOLUMES 5

III. EVALUATION OF FUTURE TRAFFIC CONDITIONS 7

A. YEAR 2023 NO-BUILD TRAFFIC VOLUMES 7

B. SITE GENERATED TRAFFIC VOLUMES 7

C. ARRIVAL/DEPARTURE DISTRIBUTIONS 8

D. YEAR 2023 BUILD CONDITIONS TRAFFIC VOLUMES 8

E. DESCRIPTION OF ANALYSIS PROCEDURES 9

F. RESULTS OF ANALYSIS 10

G. SENSIVITY ANALYSIS 13

H. ACCIDENT SUMMARY 14

IV. SUMMARY AND CONCLUSION 15

A. SUMMARY OF RECOMMENDED MITIGATION 15

B. CONCLUSION 15

APPENDICES

APPENDIX A.....FIGURES
APPENDIX B.....TABLES
APPENDIX C.....LEVEL OF SERVICE STANDARDS
APPENDIX D.....CAPACITY ANALYSIS
APPENDIX E.....TRAFFIC COUNT DATA
APPENDIX F.....U.S. GYPSUM DATA
APPENDIX G.....U.S. CENSUS DATA / GRAVITY MODEL
APPENDIX H.....TRAFFIC SIGNAL TIMING PLANS
APPENDIX I.....TRAFFIC SIGNAL WARRANT ANALYSIS
APPENDIX J.....SENSITIVITY ANALYSIS
APPENDIX K.....ACCIDENT DATA
APPENDIX L.....CONCEPTUAL IMPROVEMENT PLAN

I. INTRODUCTION

A. PROJECT DESCRIPTION AND LOCATION

(Figure No. 1)

This report has been prepared to evaluate the potential traffic impacts associated with the proposed waterfront mixed-use development, herein referred to as Eagle Bay, in the Town of Stony Point, Rockland County, New York. The proposed development is located on Hudson Drive, approximately six hundred (600) feet north of the intersection with Tomkins Avenue/Beach Road. The site is currently occupied by a marina and its various industrial buildings and boat yards, used for offices, boat repair and storage. Redevelopment of the site is proposed to consist of 264 residential units, 13,500 square feet (s.f.) of commercial space (3,200 s.f. of retail, 7,200 s.f. of office space, 3,100 s.f. of restaurant/bar space). The existing boat slips and docks are proposed to be rebuilt and reconfigured into a total of approximately 100 boat slips. The project will also include a public pier and an esplanade walkway along the Hudson River which would be used by the public. As shown in Figure No. 1, access to the development will continue to be provided via the existing Hudson Drive. A secondary access which will be gated will be provided to Hunter Place.

A Design Year of 2023 has been utilized in completing the traffic analysis in order to evaluate future traffic conditions associated with this proposed development.

B. SCOPE OF STUDY

This study has been prepared to identify current and future traffic operating conditions on the surrounding roadway network and to assess the potential traffic impacts of the proposed Eagle Bay development.

Turning movement traffic counts were collected by representatives of Maser Consulting during the summertime and when school was in session and were utilized to establish the Year 2018 Existing Traffic Volumes, representing the existing traffic conditions on the site area roadway network.

The Year 2018 Existing Traffic Volumes were then projected to the 2023 Design Year to take into account background traffic growth in the vicinity of the site. In addition, traffic for other specific potential or approved developments in the area were estimated and then added to the Year 2023 Projected Traffic Volumes to obtain the Year 2023 No-Build Traffic Volumes.

Estimates were then made for the potential traffic that the proposed development would generate during each of the peak hours (see Section III.B for further discussion) based on information published by the Institute of Transportation Engineers. The resulting Site Generated Traffic Volumes were then added to the roadway network and combined with the Year 2023 No-Build Traffic Volumes to form the Year 2023 Build Traffic Volumes.

Based on the procedures contained in the Highway Capacity Manual and using the SYNCHRO analysis program, the Year 2018 Existing, Year 2023 No-Build and Year 2023 Build Traffic Volumes were compared to roadway capacities to determine existing and future Levels of Service and operating conditions. Recommendations for improvements were made where necessary to serve the existing and/or future traffic volumes.

II. EXISTING ROADWAY AND TRAFFIC DESCRIPTIONS

A. DESCRIPTION OF EXISTING ROADWAYS

As shown on Figure No. 1, the Eagle Bay development will be accessed via the existing Hudson Drive. The following is a brief description of the roadways located within the study area. In addition, Section III.F provides a further description of the existing geometrics, traffic control and a summary of the existing and future Levels of Service and any recommended improvements for each of the study area intersections. Appendix "D" contains copies of the capacity analyses which indicate the existing geometrics (including lane widths) and other characteristics for each of the individual intersections studied.

1. U.S. Route 9W

   U.S. Route 9W is generally a north-south State roadway that travels through Rockland County. Within the study area, U.S. Route 9W consists of one-lane in each direction and intersects E/W Main Street at a full movement, signalized intersection with separate left-turn lanes and intersects Tomkins Avenue at an unsignalized "T" intersection. Additionally, sidewalks are present on both sides of the roadway and there are striped crosswalks on all approaches to the U.S. Route 9W/Main Street intersection. The posted speed limit is 30 MPH and there are no vehicle weight restrictions. North of Tomkins Avenue, U.S. Route 9W is designated as Bike Route No. 9.

2. E/W Main Street (C.R. 108)

   E/W Main Street (C.R. 108) is generally an east-west County roadway consisting of one lane in each direction. Within the study area, E/W Main Street intersects with U.S. Route 9W at a full movement, signalized intersection with separate left-turn lanes and continues in an eastbound direction intersecting with local roads, crossing the CSX Rail Line and terminating at Beach Road/Grassy Point Road. Additionally, there are sidewalks and striped crosswalks present on all approaches to the U.S. Route 9W/Main Street intersection, as well as a sidewalk present on the northern side of E Main Street from U.S. Route 9W to just past the CSX Rail Line overpass. The posted speed limit is 30 MPH and there are no vehicle weight restrictions.

3. Tomkins Avenue (C.R. 110)

Tomkins Avenue (C.R. 110) is an east-west County roadway which originates at a "T" shaped intersection with U.S. Route 9W and traverses eastbound, intersecting with local roadways, including Wood Avenue/Farley Drive, passing under the CSX Rail Line (where it narrows to 20') and terminating at Beach Road/Hudson Drive. It should be noted that the posted vehicle height clearance under the CSX Rail Line overpass is 9 feet, 11 inches (9'11"). To improve the overall operation and safety of the Tomkins Avenue/Beach Road/Hudson Drive intersection (regardless of the redevelopment of the Eagle Bay site), it is recommended that "Stop" sign control be installed on the Tomkins Avenue approach due to the alignment of the three approaches and the intersection's proximity to the CSX Railroad overpass. Additionally, it is recommended that an advanced "Stop Sign Ahead" sign be placed on the Tomkins Avenue approach prior to the overpass to indicate the upcoming traffic control. [See Section IV.A – Summary of Recommended Mitigation].

This roadway is also designated as Bike Route No. 9. In the vicinity of the site, the roadway consists of a single lane in each direction, no sidewalks are provided, there is a posted Speed Limit of 30 MPH and there are no posted vehicle weight restrictions.

4. Beach Road (C.R. 110)

Beach Road (C.R. 110) is a north-south County roadway which originates at Tomkins Avenue/Hudson Drive and traverses south, terminating at E Main Street/Grassy Point Road. In the vicinity of the site, the roadway consists of a single lane, no sidewalks are provided, there is a posted Speed Limit of 30 MPH and there are no posted vehicle weight restrictions. It should be noted that at the southern end of Beach Road near the River View Park, flooding occurs on the northbound lane at "High High Tide". There is a "Roadway Flooded" sign on the northbound approach along this stretch of Beach Road.

It should be noted that flooding occurs at the southern end of Beach Road near the River View Park, during "High High Tide" (the higher of the two daily high tides). There is a "Roadway Flooded" sign on the northbound approach along this stretch of Beach Road. Based on conversations with the Stony Point Police, Fire and Ambulance emergency services including observations of the conditions by the Site Engineer (Atzl, Nasher & Zigler), flooding occurs under 3 different scenarios; flooding over the northbound lane every day at "High High Tide" where traffic is still able to travel via both lanes, flooding when "High High Tide" coincides

with spring tides, (spring tide occurring twice every lunar cycle) where northbound traffic has to use the southbound lane to pass, and during storm surges when both travel lanes are flooded and traffic along Beach Road is diverted. It should be noted that during these conditions traffic to/from Beach Road/Grassy Point Road would be able to access the Site by alternate routes (i.e., East Main Street/Woods Road/ Tomkins Avenue).

B. DESCRIPTION OF EXISTING PUBLIC TRANSPORTATION

Bus Service

Public bus service to the Stony Point area is provided daily by CoachUSA from the Midtown Port Authority Bus Terminal via the 9, 11, 47, 49 and Short Line routes. The closest bus stop to the Eagle Bay site is the U.S. Route 9W Park & Ride approximately 0.7 miles to the south of Tomkins Avenue. This stop is the northern terminus for each of the above routes.

Ferry Service

The Haverstraw-Ossining Ferry provides daily service for passengers from the Haverstraw Ferry station (approximately 3 miles south of the Eagle Bay site) in Rockland County to the Ossining Ferry Station in Westchester County, New York. It should be noted that this ferry service is suspended during the winter months.

C. YEAR 2018 EXISTING TRAFFIC AND PEDESTRIAN VOLUMES

(Figures No. 2 through 5)

Turning movement traffic counts, including pedestrian volumes, were collected by representatives of Maser Consulting, P.A. when school was in session to correspond to the Weekday Peak AM and Peak PM Hours and during the summertime to correspond to when the Site is expected to peak based on the proposed uses (retail, restaurant/bar, marina and promenade areas at the following times:

- Thursday, October 4, 2018 between the hours of 6:30 AM – 9:30 AM
- Thursday, October 4, 2018 between the hours of 3:30 PM – 6:30 PM
- Friday, August 24, 2018 between the hours of 4:00 PM – 7:00 PM **(1)**
- Saturday, August 25, 2018 between the hours of 10:00 AM – 2:00 PM

In addition, Automatic Traffic Recorders (ATR's) were placed along Tomkins Avenue, E Main Street, Beach Road and Hudson Drive to collect hourly traffic volumes under both typical (while school was in session) and summer conditions. **(1)** Based on a review of the ATR Data the Summer Friday Peak Hours are between 4:00 PM and 6:00 PM)

Together, these counts were used to determine the existing traffic and pedestrian volume conditions during the Typical Weekday Peak AM, Typical Weekday Peak PM, Summer Friday Peak PM and Summer Saturday Peak hours at the study area intersections. Based on this information, the Year 2018 Existing Traffic Volumes for each peak hour were established at the following study area intersections as per the scoping document.

- Tomkins Avenue, Beach Road and Hudson Drive
- E Main Street/Grassy Point Road and Beach Road
- U.S. Route 9W and E/W Main Street
- U.S. Route 9W and Tomkins Avenue
- Tomkins Avenue and Farley Drive/Wood Avenue

Based upon a review of the above traffic count data (turning movement traffic counts/ATR Data) and a review of NYSDOT historical traffic count data along U.S. Route 9W (Appendix E), the critical peak hours for analysis were generally identified as follows:

- Typical Weekday Peak AM Hour 8:15 AM – 9:15 AM
- Typical Weekday Peak PM Hour 4:15 PM – 5:15 PM
- Summer Friday Peak PM Hour 4:00 PM – 5:00 PM
- Summer Saturday Peak Hour 12:30 PM – 1:30 PM

The resulting Year 2018 Existing Traffic Volumes and levels of use are shown on Figures No. 2 through 5 for the Typical Weekday Peak AM, Typical Weekday Peak PM, Summer Friday Peak PM and Summer Saturday Peak hours, respectively. Copies of the turning movement traffic counts, ATR data and a comparison of the turning movement traffic counts/ATR data are contained in Appendix E.

III. EVALUATION OF FUTURE TRAFFIC CONDITIONS

A. YEAR 2023 NO-BUILD TRAFFIC VOLUMES

(Figures No. 6 through 17)

Based on a review of New York State Department of Transportation (NYSDOT) historical traffic volume data for the U.S. Route 9W corridor, there has been minimal growth in traffic volumes in the area. A copy of the NYSDOT historical count data is contained in Appendix E. However, to provide a conservative analysis, the Year 2018 Existing Traffic Volumes were increased by a growth factor of 0.5% per year, for a total background growth of 2.5%, to account for general background traffic volume growth in the area. These volumes result in the Year 2023 Projected Traffic Volumes, which are shown on Figures No. 6 through 9 for each of the peak hours, respectively.

In addition, estimates of the traffic expected to be generated by the potential reoccupancy/reopening of the US Gypsum Manufacturing Plant (70 Grassy Point Road) during each of the peak hours were developed based on information published by the Institute of Transportation Engineers (ITE) as contained in the report entitled "Trip Generation", 10th Edition, 2017. These estimates were based on Land Use Category 140 – Manufacturing for 300 employees (U.S. Gypsum had employed 200-300 people). These traffic volumes were then assigned to the roadway network based on the anticipated traffic patterns and are shown on Figures No. 10 through 13 for each of the peak hours, respectively. [A copy of the U.S. Gypsum Manufacturing Plant data is contained in Appendix "F"].

The Other Development Traffic Volumes were then added to the Year 2023 Projected Traffic Volumes resulting in the Year 2023 No-Build Traffic Volumes, shown on Figures No. 14 through 17 for each of the peak hours, respectively.

B. SITE GENERATED TRAFFIC VOLUMES

(Table No. 1)

As discussed in Section I.A, the Eagle Bay Development is proposed to consist of a combination of residential (264 units), retail (3,200 s.f.), office (7,200 s.f.) and restaurant/bar space (3,100 s.f.) as well as public-access area and private boat slips. Estimates of the amount of traffic to be generated by the proposed development during each of the peak hours were developed based on information published by the Institute of Transportation Engineers (ITE) as contained in the report entitled "Trip Generation", 10th Edition, 2017. The trip generation rates and anticipated site generated traffic volumes are summarized in Table No. 1 for each of the peak hours (Appendix B).

It should be noted that no reduction in trip generation (credit) for the likely "interplay" between the various uses (residential, retail, restaurant/bar, marina, public access area) contained within the proposed development was taken to provide a conservative analysis of future traffic conditions. It should also be noted that the existing traffic volumes entering/exiting the site associated with the existing uses on the site were not removed from the network under the future build conditions to conservatively account for the use of the public access area and marina (boat slips).

Additionally, delivery trips are expected to access the site from U.S. Route 9W via Tomkins Avenue. It should be noted that deliveries during the peak hour are included in the site generated traffic estimates in accordance with the data published in ITE's report entitled "Trip Generation", 10th Edition, 2017.

As requested by the Village's Traffic Consultant, a sensitivity analysis was conducted if the development mix was changes to a "higher" traffic generation use (i.e. all restaurant use). See Section III.G – Sensitivity Analysis.

C. ARRIVAL/DEPARTURE DISTRIBUTIONS

(Figures No. 18 through 21)

It was necessary to establish arrival and departure distributions to assign the site generated traffic volumes to the surrounding roadway network. These distributions were based a review of the area population (Gravity Model and U.S. Census Data) and slightly adjusted based on a review of the existing traffic volumes and the expected local travel patterns. The resulting arrival and departure distributions for the residential component of the site are shown on Figures No. 18 and 19, and the arrival and departure distributions for the commercial components of the site are shown on Figures No. 20 and 21, respectively. A copy of the Gravity Model and U.S. Census Data are contained in Appendix G.

D. YEAR 2023 BUILD CONDITIONS TRAFFIC VOLUMES

(Figures No. 22 through 29)

The site generated traffic volumes were assigned to the roadway network based on the arrival and departure distributions referenced above. The resulting site generated traffic volumes for each of the study area intersections are shown on Figures No. 22 through 25 for each of the peak hours, respectively. These site generated traffic volumes were then added to the Year 2023 No-Build Traffic Volumes to obtain the Year 2023 Build Traffic Volumes. The resulting Year 2023 Build Traffic Volumes are shown on Figures No. 26 through 29 for each of the peak hours, respectively.

E. DESCRIPTION OF ANALYSIS PROCEDURES

It was necessary to perform capacity analyses in order to determine existing and future traffic operating conditions at the study area intersections. The following is a brief description of the analysis method utilized in this report:

- Signalized Intersection Capacity Analysis
  The capacity analysis for a signalized intersection was performed in accordance with the procedures described in the *Highway Capacity Manual, 6th Edition* published by the Transportation Research Board. The terminology used in identifying traffic flow conditions is Levels of Service. A Level of Service "A" represents the best condition and a Level of Service "F" represents the worst condition. A Level of Service "C" is generally used as a design standard while a Level of Service "D" is acceptable during peak periods. A Level of Service "E" represents an operation near capacity. In order to identify an intersection's Level of Service, the average amount of vehicle delay is computed for each approach to the intersection as well as for the overall intersection.

- Unsignalized Intersection Capacity Analysis
  The unsignalized intersection capacity analysis method utilized in this report was also performed in accordance with the procedures described in the *Highway Capacity Manual, 6th Edition.* The procedure is based on total elapsed time from when a vehicle stops at the end of the queue until the vehicle departs from the stop line. The average total delay for any particular critical movement is a function of the service rate or capacity of the approach and the degree of saturation. In order to identify the Level of Service, the average amount of vehicle delay is computed for each critical movement to the intersection.

Additional information concerning signalized and unsignalized Levels of Service can be found in Appendix "C" of this report.

F. RESULTS OF ANALYSIS

(Table No. 2)

Capacity analyses which take into consideration appropriate lane widths/grades (measured using Google Earth), truck percentages/pedestrian activity (based on the traffic counts) and other factors were performed at the study area intersections utilizing the procedures described above to determine the Levels of Service and average vehicle delays. Summarized below are a description of the existing geometrics, traffic control and a summary of the existing and future Levels of Service as well as any recommended improvements.

Table No. 2 summarizes the results of the capacity analysis for the Year 2018 Existing, Year 2023 No-Build and Year 2023 Build Conditions. Appendix "D" contains copies of the capacity analysis which also indicate the existing geometrics (including lane widths) and other characteristics for each of the individual intersections studied.

1. Tomkins Avenue, Beach Road and Hudson Drive

   Hudson Drive intersects with Tomkins Avenue and Beach Road at an unsignalized, 3-legged intersection. "Stop" signs are currently located on both the Hudson Drive and Beach Road approaches. Each approach consists of a single lane serving all vehicle movements.

   Capacity analysis conducted utilizing the Year 2018 Existing Traffic Volumes indicates that all movements are currently operating at a Level of Service "A" during each of the peak hours.

   Capacity analysis conducted utilizing the Year 2023 No-Build Traffic Volumes indicates that all approaches to the intersection are projected to operate at a Level of Service "A" during each of the peak hours.

   Capacity analysis conducted utilizing the Year 2023 Build Traffic Volumes indicates that all approaches to the intersection are projected to operate at a Level of Service "B" or better during each of the peak hours.

   Due to the alignment of the intersection, and the proximity of the CSX Railroad overpass to the intersection, it is recommended that regardless of the Eagle Bay development, "Stop" sign control should also be installed on the Tomkins Avenue approach to the intersection to improve the operation and safety with respect to sight distance at this location.

The capacity analysis was recomputed with all-way "Stop" sign control under both the Year 2023 No-Build and Year 2023 Build conditions. These analyses indicate that all approaches to the intersection are projected to operate at a Level of Service "A" under both future conditions, during each of the peak hours.

2. E Main Street/Grassy Point Road and Beach Road

Beach Road intersects with E Main Street/Grassy Point Road at an unsignalized, four-legged intersection with "Stop" sign control on the Beach Road approach. The eastbound E Main Street and westbound Grassy Point Road approaches to the intersection consist of a single lane serving all vehicle movements. The southbound Beach Road approach also consists of one lane with right-turn channelization.

Capacity analysis conducted utilizing the Year 2018 Existing Traffic Volumes indicates that all approaches to the intersection currently operate at a Level of Service "B" or better during each of the peak hours.

Capacity analysis computed utilizing the Year 2023 No-Build and Year 2023 Build Traffic Volumes indicate that all approaches to the intersection are projected to continue to operate at a Level of Service "B" or better under both future conditions, during each of the peak hours.

3. U.S. Route 9W and E/W Main Street

E/W Main Street intersect with U.S. Route 9W at a signalized, four-legged intersection. Each approach consists of separate left-turn and through/right-turn lanes. The Traffic Signal Timings utilized were based on the NYDSOT Traffic Signal Timing Plans contained in Appendix H.

Capacity analysis conducted utilizing the Year 2018 Existing Traffic Volumes indicates that the intersection currently operates at an overall Level of Service "C" or better during each of the peak hours.

Capacity analysis conducted utilizing the Year 2023 No-Build and Year 2023 Build Traffic Volumes indicates that the intersection is projected to continue to operate at an overall Level of Service "C" or better under both future conditions, during each of the peak hours. It should be noted that while the Level of Service Summary Table (Table No. 2) shows certain movements operating at a LOS "D" under the Build Condition, as discussed in Section III.B, no reduction in trip generation (credit) for the likely "interplay" between the various uses (residential, retail, restaurant/bar, marina, public access area) was taken to provide a conservative analysis of future traffic conditions.

A further analysis of this intersection was conducted with potential signal timing changes if warranted under future conditions. As shown on Table No. 2, with these signal timing changes the intersection will continue to operate at an overall Level of Service "C" with all movements operating at a LOS "C" or better during each of the peak hours.

4. U.S. Route 9W and Lowland Hill Road

Lowland Hill Road intersects with U.S. Route 9W at an unsignalized intersection for right turn entry/right turn exit movements under "Stop" sign control immediately south of the U.S. Route 9W/Main Street intersection.

Capacity analysis conducted utilizing the Year 2018 Existing Traffic Volumes indicates that the Lowland Hill Road approach currently operates at a Level of Service "C" or better during each of the peak hours.

Capacity analysis computed utilizing the Year 2023 No-Build and Year 2023 Build Traffic Volumes indicate that the Lowland Hill Road approach is projected to continue to operate at a Level of Service "C" or better under both future conditions, during each of the peak hours.

5. U.S. Route 9W and Tomkins Avenue

Tomkins Avenue intersects with U.S. Route 9W at an unsignalized, "T" shaped intersection with "Stop" sign control on the westbound Tomkins Avenue approach. Each approach to the intersection consists of a single lane serving all vehicle movements.

Capacity analysis conducted utilizing the Year 2018 Existing Traffic Volumes indicates the southbound U.S. Route 9W approach currently operates at a Level of Service "A" and the westbound Tomkins Avenue approach operates at a Level of Service "C" during each of the peak hours.

Capacity analysis conducted utilizing the Year 2023 No-Build Traffic Volumes indicates that both the southbound U.S. Route 9W and westbound Tomkins Avenue approaches are projected to continue to operate at a Level of Service "A" and a Level of Service "C", respectively, during each of the peak hours.

Capacity analysis conducted utilizing the Year 2023 Build Traffic Volumes indicates that the southbound U.S. Route 9W approach is projected to continue to operate at a Level of Service "A" while the westbound Tomkins Avenue approach is projected to operate at an acceptable Level of Service "D" or better during each of the peak hours.

It should be noted that for unsignalized intersections, it is not uncommon for the side road approach (Tomkins Avenue) to operate with delays while the major road operates at better Levels of Service.

In order to improve the operation of the intersection, a Traffic Signal would be needed. A Traffic Signal Warrant Analysis was conducted under the Year 2023 Build Traffic Volumes condition. As Shown on Traffic Signal Warrant tables No. W-1, W-2, and Figures 4C-1, 4C-3, the Traffic Signal Warrant Criteria would not be met. A copy of the Traffic Signal Warrant Analysis is contained in Appendix I.

6. Tomkins Avenue and Farley Drive/Wood Avenue
Farley Drive and Wood Avenue intersect with Tomkins Avenue at an unsignalized, four-legged intersection under all-way "Stop" sign control. Each approach to the intersection consists of a single lane serving all vehicle movements.

Capacity analysis conducted at this intersection utilizing the Year 2018 Existing Traffic Volumes indicates that all approaches to the intersection currently operate at an overall Level of Service "A" during each of the peak hours.

Capacity analysis conducted utilizing the Year 2023 No-Build and Year 2023 Build Traffic Volumes indicates that all approaches to the intersection are projected to continue to operate at an overall Level of Service "A" under both future conditions, during each of the peak hours.

G. SENSIVITY ANALYSIS

(Tables No. 1-S, 2-S)

As outlined in Section I.A, the redevelopment of the site is proposed to consist of a combination of residential (264 units), retail (3,200 s.f.), office (7,200 s.f.) and restaurant/bar space (3,100 s.f.) as well as public-access area and private boat slips. As discussed in Section III.B, no reduction in trip generation (credit) for the likely "interplay" between the various uses (residential, retail, restaurant/bar, marina, public access area) was taken to provide a conservative analysis of future traffic conditions. However, as requested by the Village's Traffic Consultant, a sensitivity analysis was conducted if the development mix was changes to a "higher" traffic generation use (i.e. all restaurant use). The resulting trip generation rates and anticipated site generated traffic volumes (Table No. 1-S), traffic volumes (Figures No. 1S-8S) and resulting Levels of Service (Table No. 2-S) are contained in Appendix J.

H. ACCIDENT SUMMARY

(Tables No. 3, 4)

Accident information was obtained from the NYSDOT Records Access Office for the most recent five full year period (2013, 2014, 2015, 2016, 2017) for the Study Area Intersections. This data is summarized in Table No. 3 by location, date, time, traffic control, severity, number of vehicles/injuries, light conditions, road surface condition, weather, manner of collision and apparent contributing factors. A review of the accident data indicates typical type of accidents which includes rear-end accidents with apparent contributing factors such as failure to yield right of way, following too closely and driver inattention. Appendix K contains a copy of the NYSDOT Accident Severity Summary and Verbal Description Reports.

In addition, accident information was obtained from the Town of Stony Point Police Department along Tompkins Avenue in the vicinity Hudson Drive (Site Access)/Beach Road/CRX railroad overpass for the years 2009, 2010, 2011 when the marina was fully active. (Appendix K).

As summarized in Table No. 3 there were no reportable accidents in 2013, 2014, 2015, 2016, 1 reportable accident in 2017 and as summarized in Table No. 4 there was 1 reportable accident in 2009, 2 reportable accidents in 2010, 3 reportable accidents in 2011 in the vicinity of Hudson Drive (Site Access)/Beach Road/CRX railroad overpass.

Based on a review of the accident data, it is expected that the proposed Project will not have a significant impact on the accident rates on the area roadways.

IV. SUMMARY AND CONCLUSION

A. SUMMARY OF RECOMMENDED MITIGATION

1. To improve the overall operation and safety of the Tomkins Avenue/Beach Road/Hudson Drive intersection (regardless of the redevelopment of the Eagle Bay site), it is recommended that "Stop" sign control be installed on the Tomkins Avenue approach due to the alignment of the three approaches and the intersection's proximity to the CSX Railroad overpass. Additionally, it is recommended that an advanced "Stop Sign Ahead" sign be placed on the Tomkins Avenue approach prior to the overpass as well as on the Hudson Drive and Beach Road approaches to the intersection to indicate the upcoming traffic control. [See Appendix L for Conceptual Improvement Plan].

2. At the intersection of Tomkins Avenue, Farley Drive and Wood Avenue, it is recommended that an advanced "Stop Sign Ahead" sign be placed on the eastbound Tomkins Avenue approach to indicate the upcoming traffic control.

3. It is recommended that Hudson Drive be upgraded/resurfaced/restriped to accommodate the projected future traffic demand of the proposed Eagle Bay development.

4. Potential signal timing changes at the intersection of U.S. Route 9W and East/West Main Street if warranted under future conditions.

5. Currently, a "Roadway Flooded" sign is present on the northbound approach of Beach Road near the River View Park. It is recommended that a "Roadway Flooded" sign be installed on the southbound approach to this area of Beach Road.

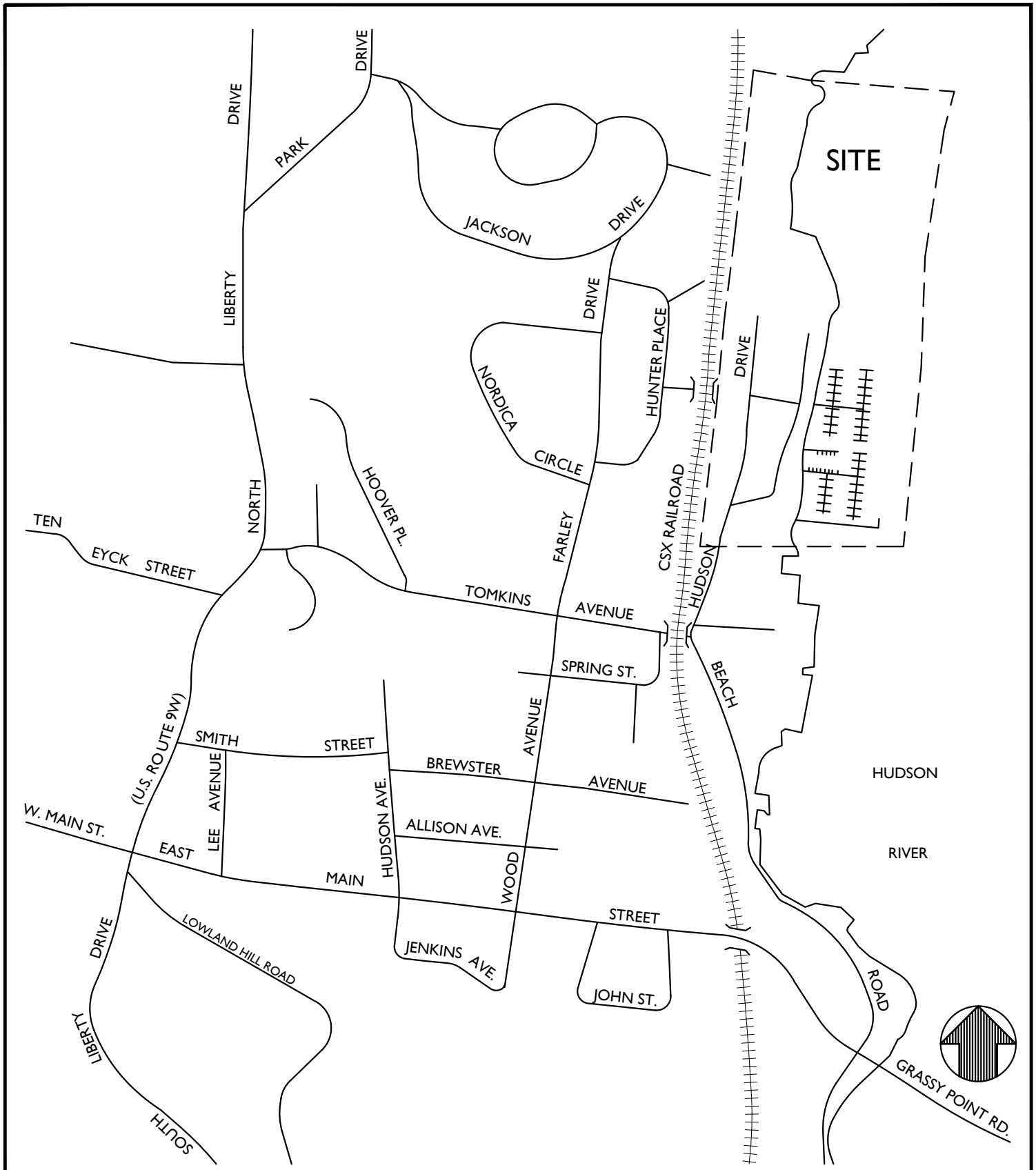
B. CONCLUSION

As summarized in this study, similar Levels of Service and delays will be experienced at the area intersections under future No-Build and future Build conditions. Thus, the proposed redevelopment of the proposed Eagle Bay mixed-use development is not expected to cause any significant impact in overall operation.

EAGLE BAY

APPENDIX A

FIGURES



NOTE: LINE DIAGRAM NOT TO SCALE

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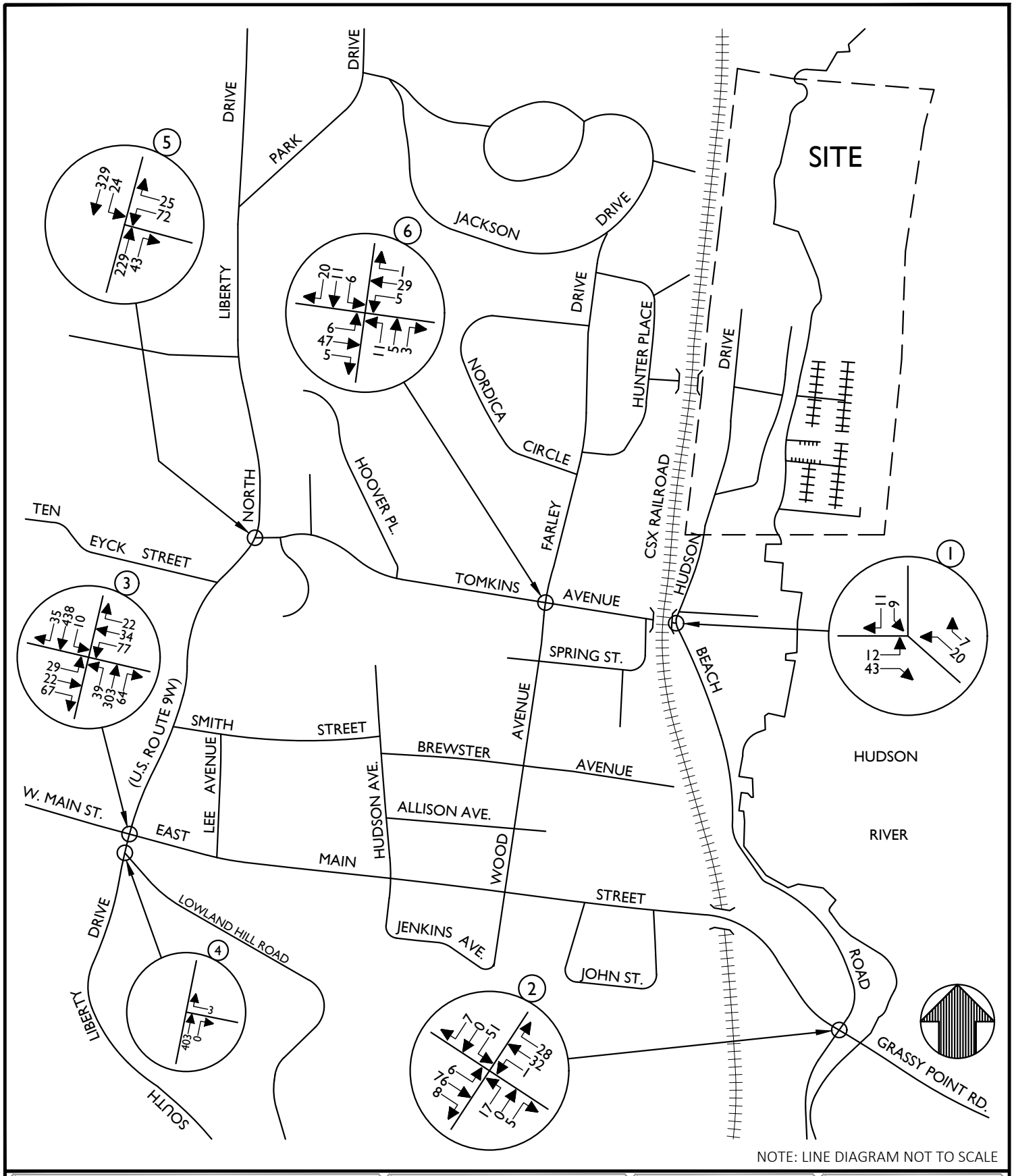
N.T.S.	5/23/2019	N.S.T.	P.J.G.

PROJECT NUMBER:	DRAWING NAME:
18005404A	190523_NT_FIGURES_TYPICAL

SHEET TITLE:
SITE LOCATION MAP

SHEET NUMBER:
FIGURE NO. 1



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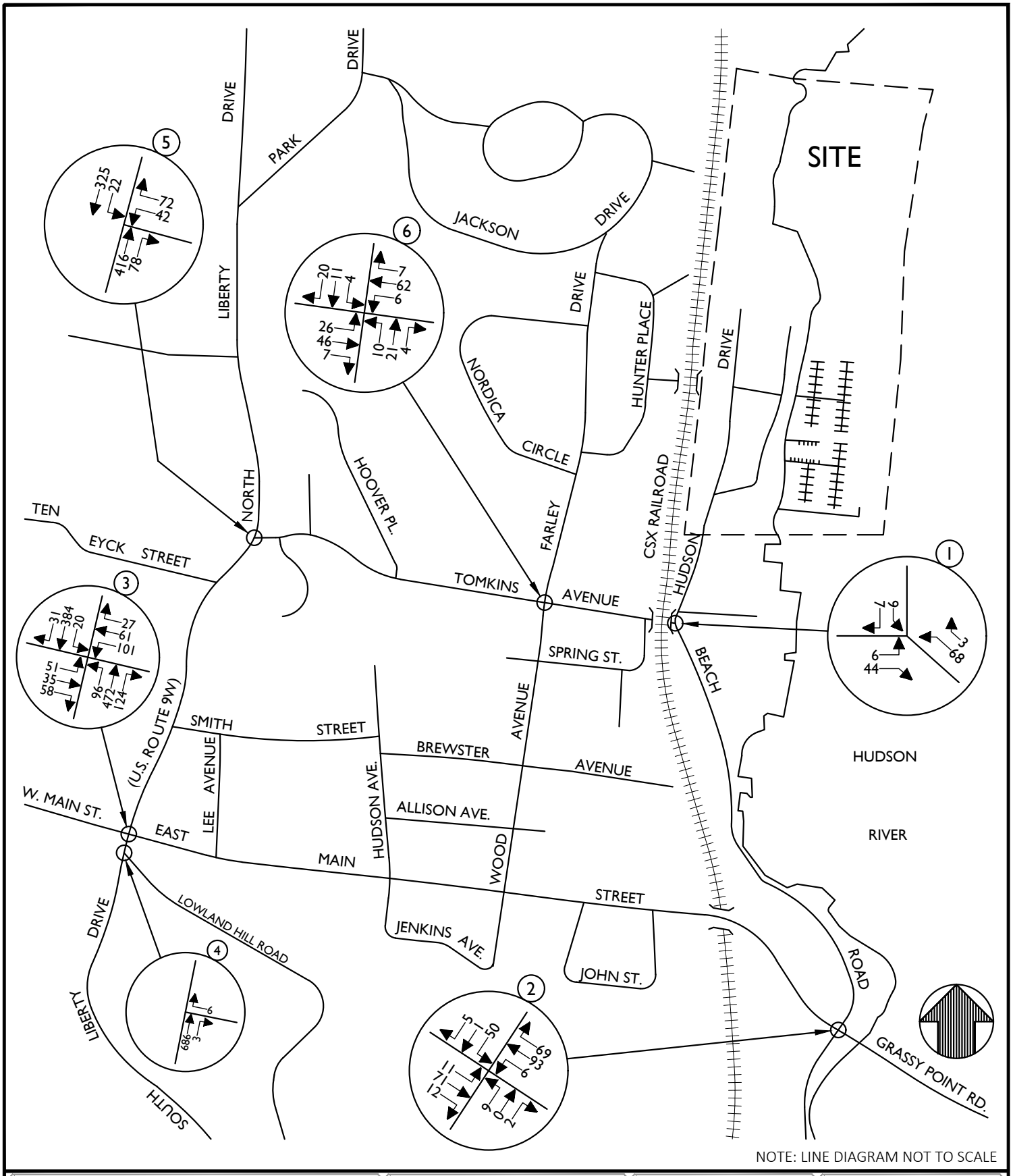
PROJECT NUMBER:	DRAWING NAME:
18005404A	190523_NT_FIGURES_TYPICAL

SHEET TITLE:
2018 EXISTING TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR

SHEET NUMBER:
FIGURE NO. 2



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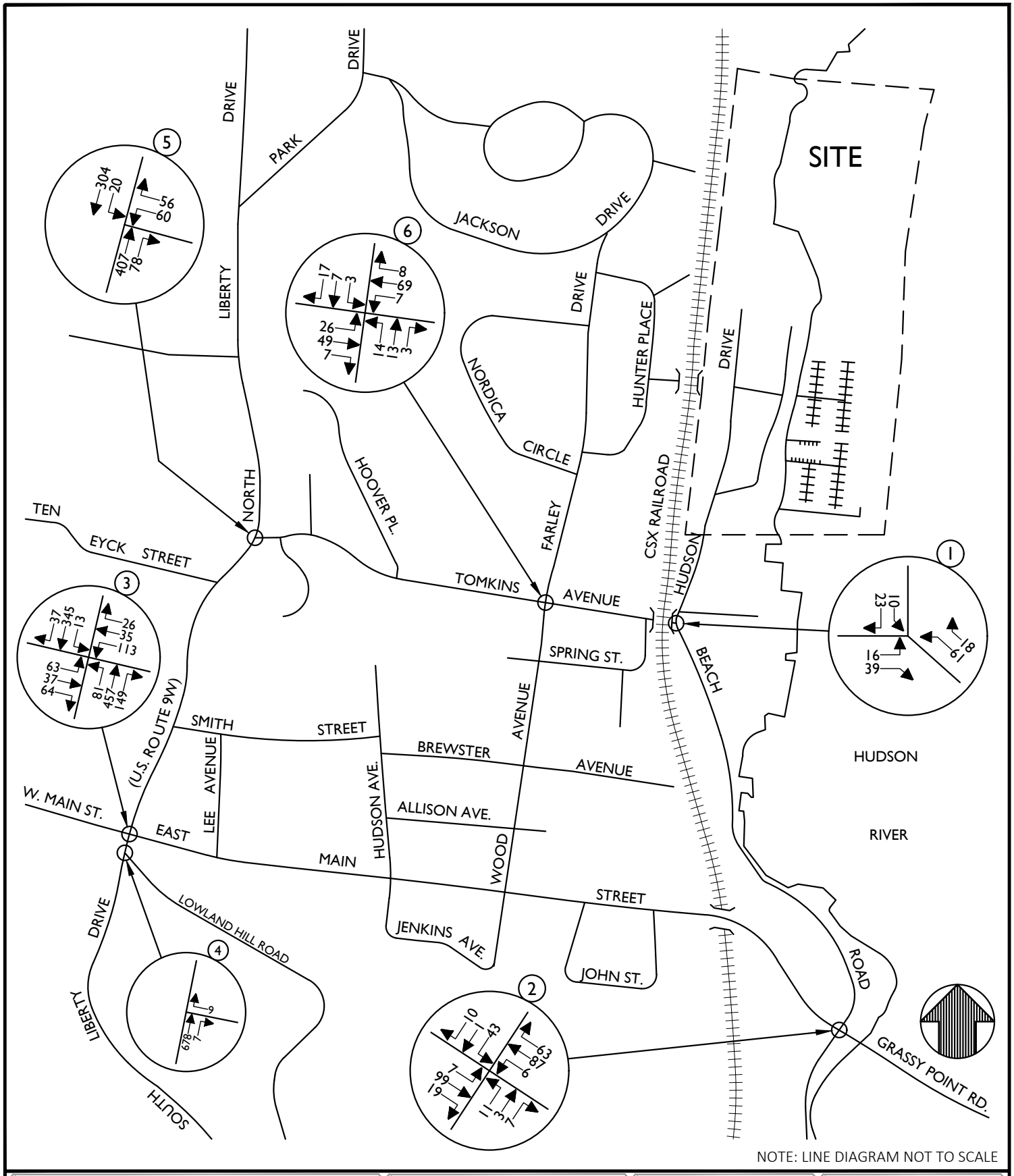
18005404A	190523_NT_FIGURES_TYPICAL

SHEET TITLE:
2018 EXISTING TRAFFIC VOLUMES
WEEKDAY PEAK PM HOUR

SHEET NUMBER:
FIGURE NO. 3



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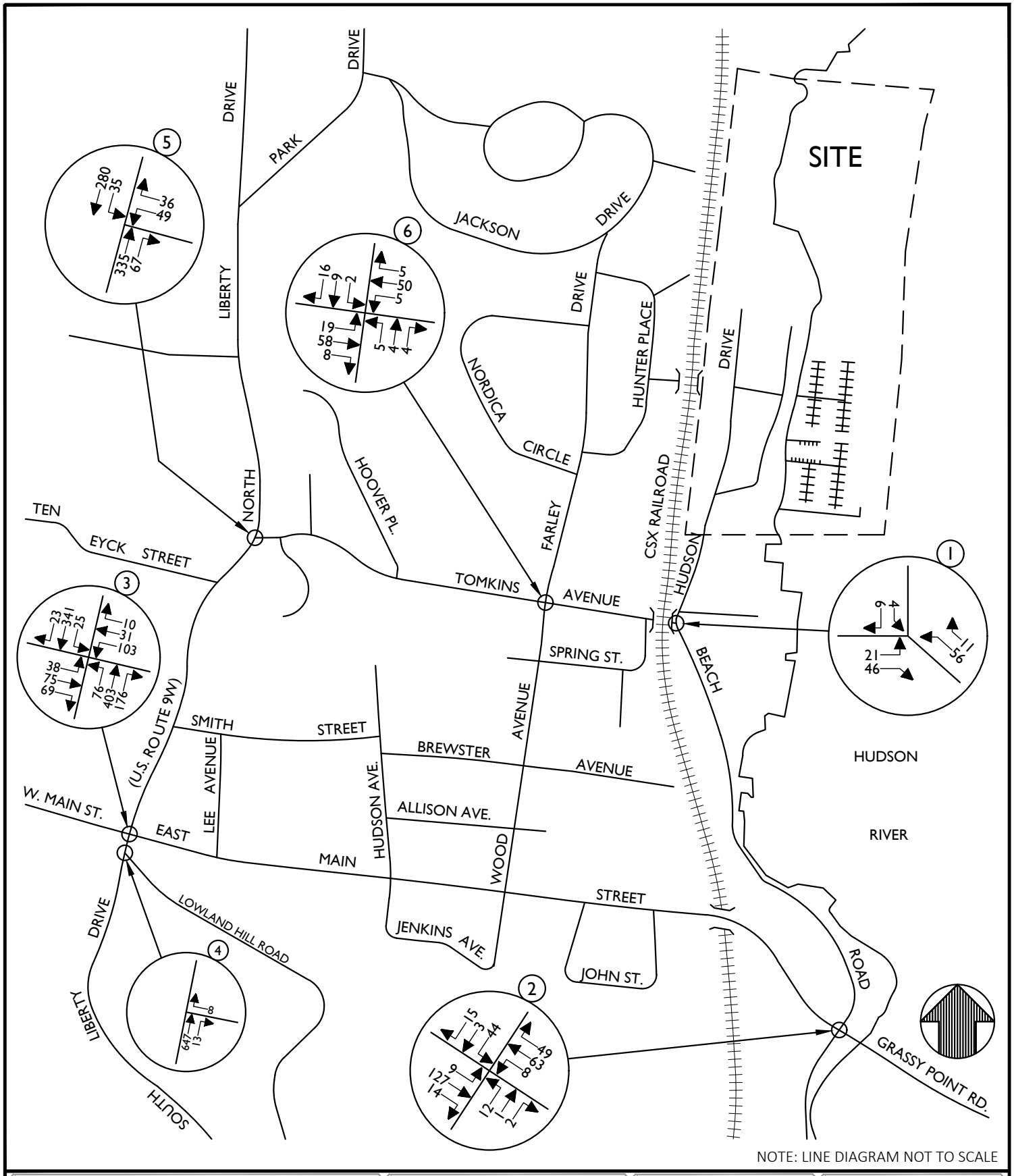
SHEET TITLE:
2018 EXISTING TRAFFIC VOLUMES
SUMMER FRIDAY PEAK PM HOUR

SHEET NUMBER:
FIGURE NO. 4



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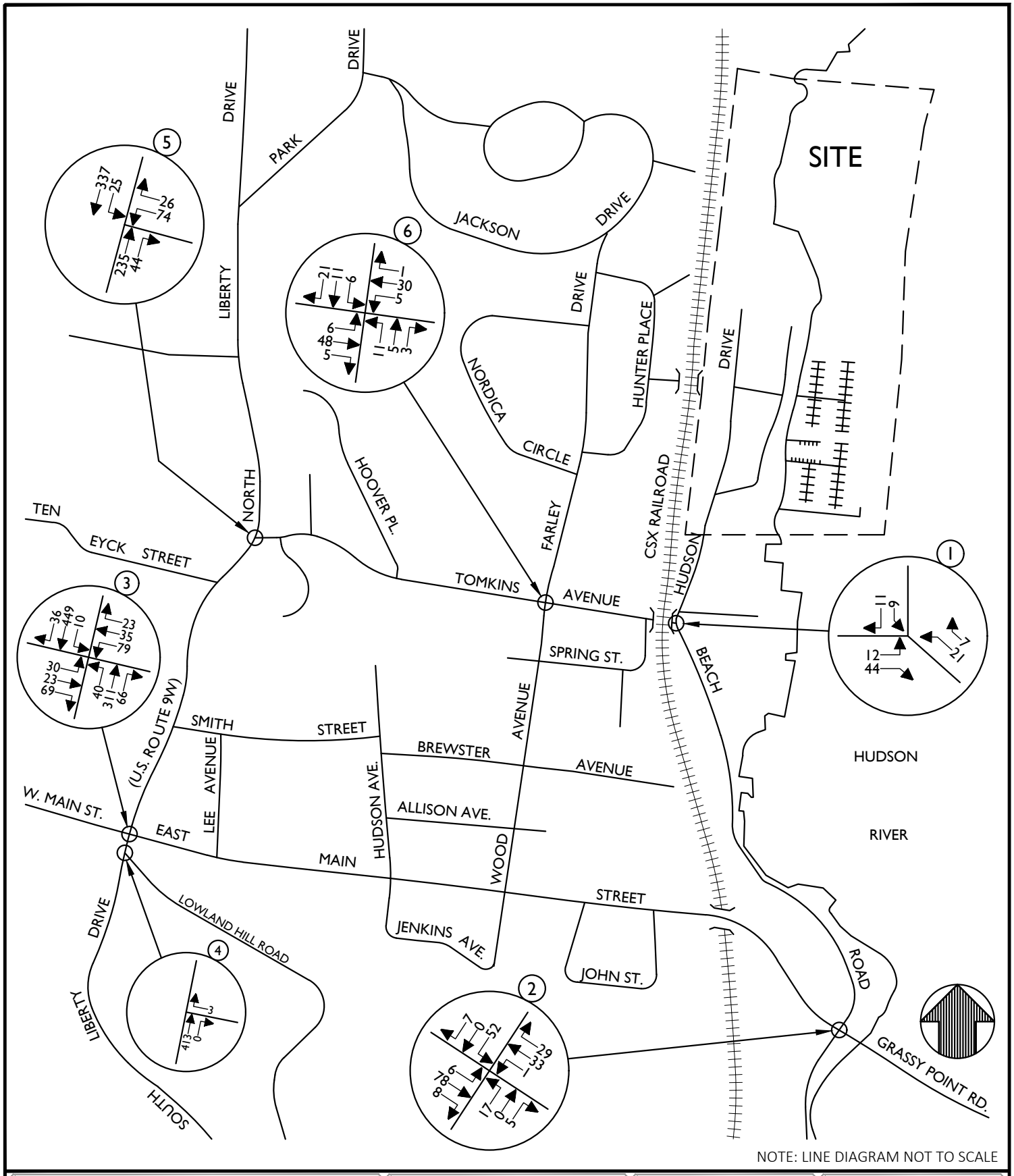
SHEET TITLE:
2018 EXISTING TRAFFIC VOLUMES
SUMMER SATURDAY PEAK HOUR

SHEET NUMBER:
FIGURE NO. 5



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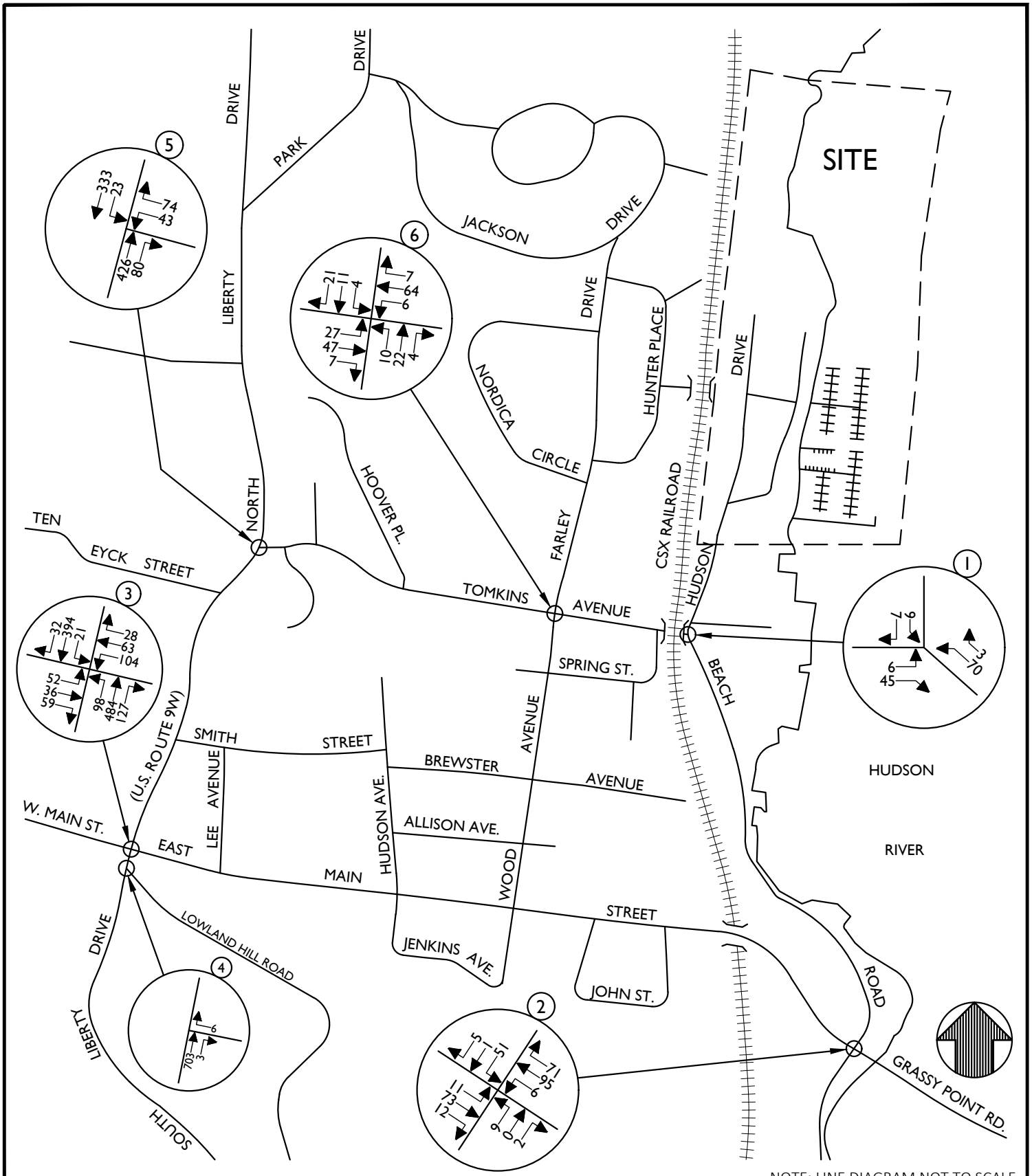
SHEET TITLE:
2023 PROJECTED TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR

SHEET NUMBER:
FIGURE NO. 6



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SHEET TITLE:
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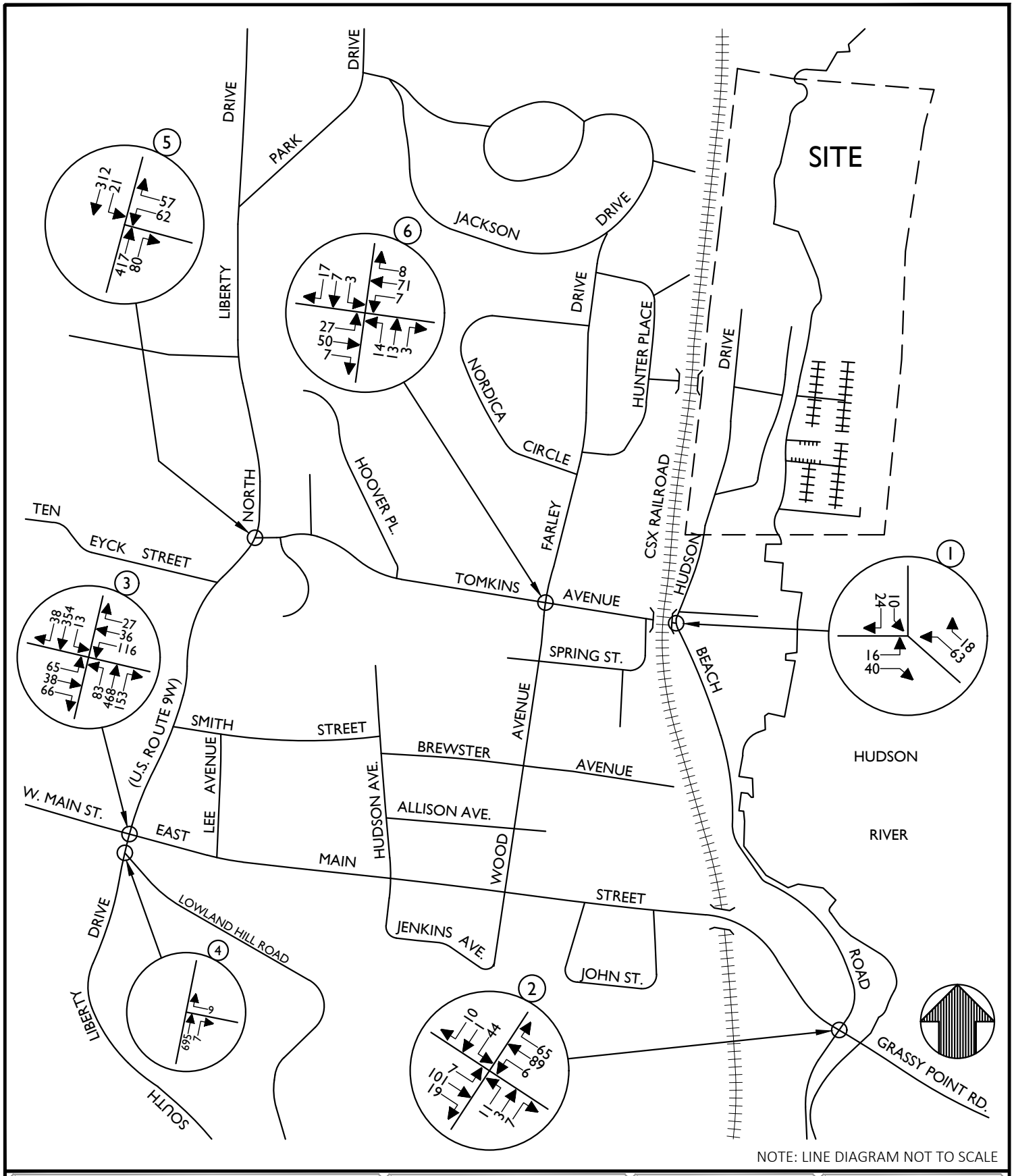
SHEET NUMBER:
FIGURE NO. 7



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SHEET TITLE:
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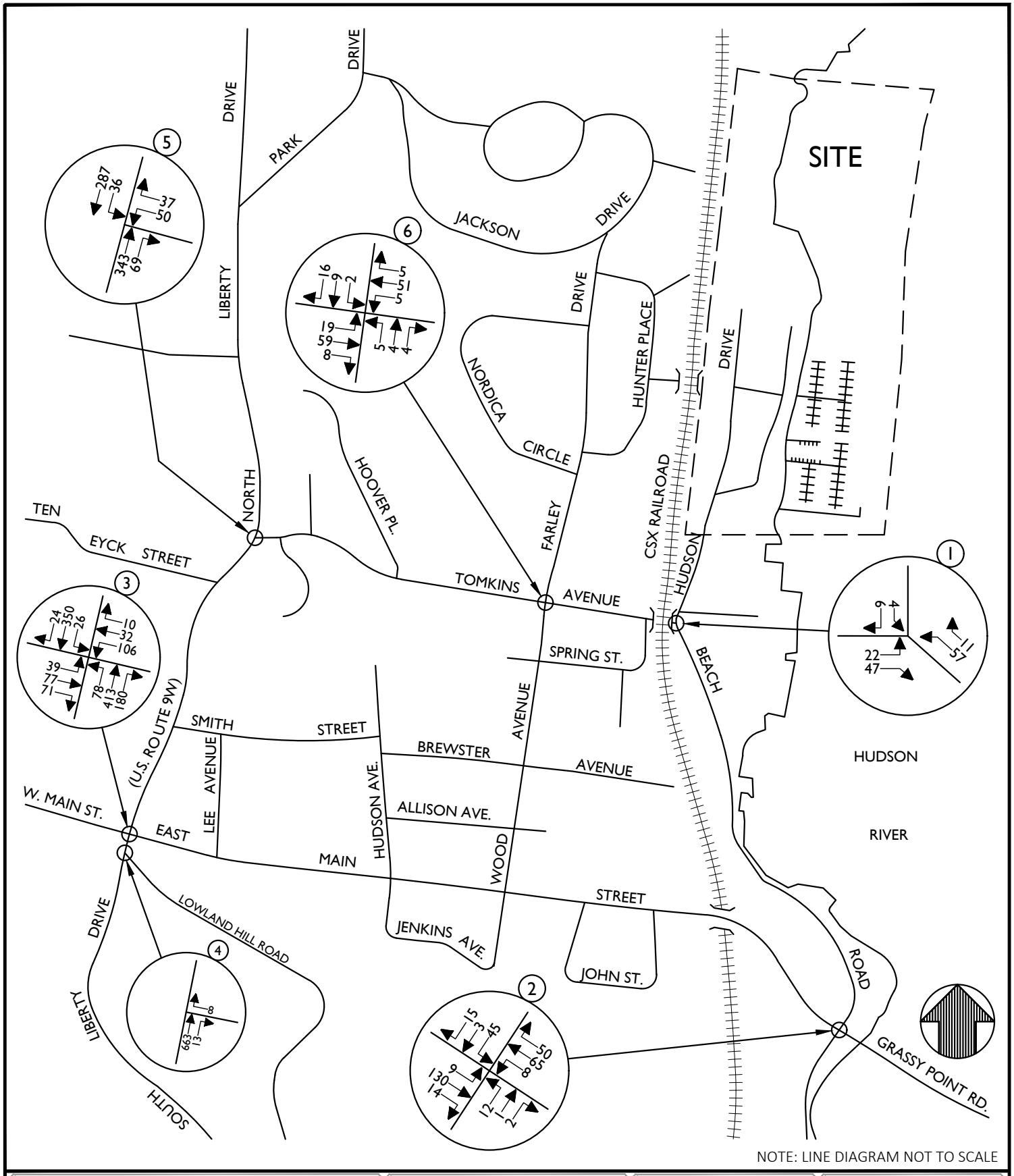
SUMMER FRIDAY PEAK PM HOUR

SHEET NUMBER:
FIGURE NO. 8



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SHEET TITLE:
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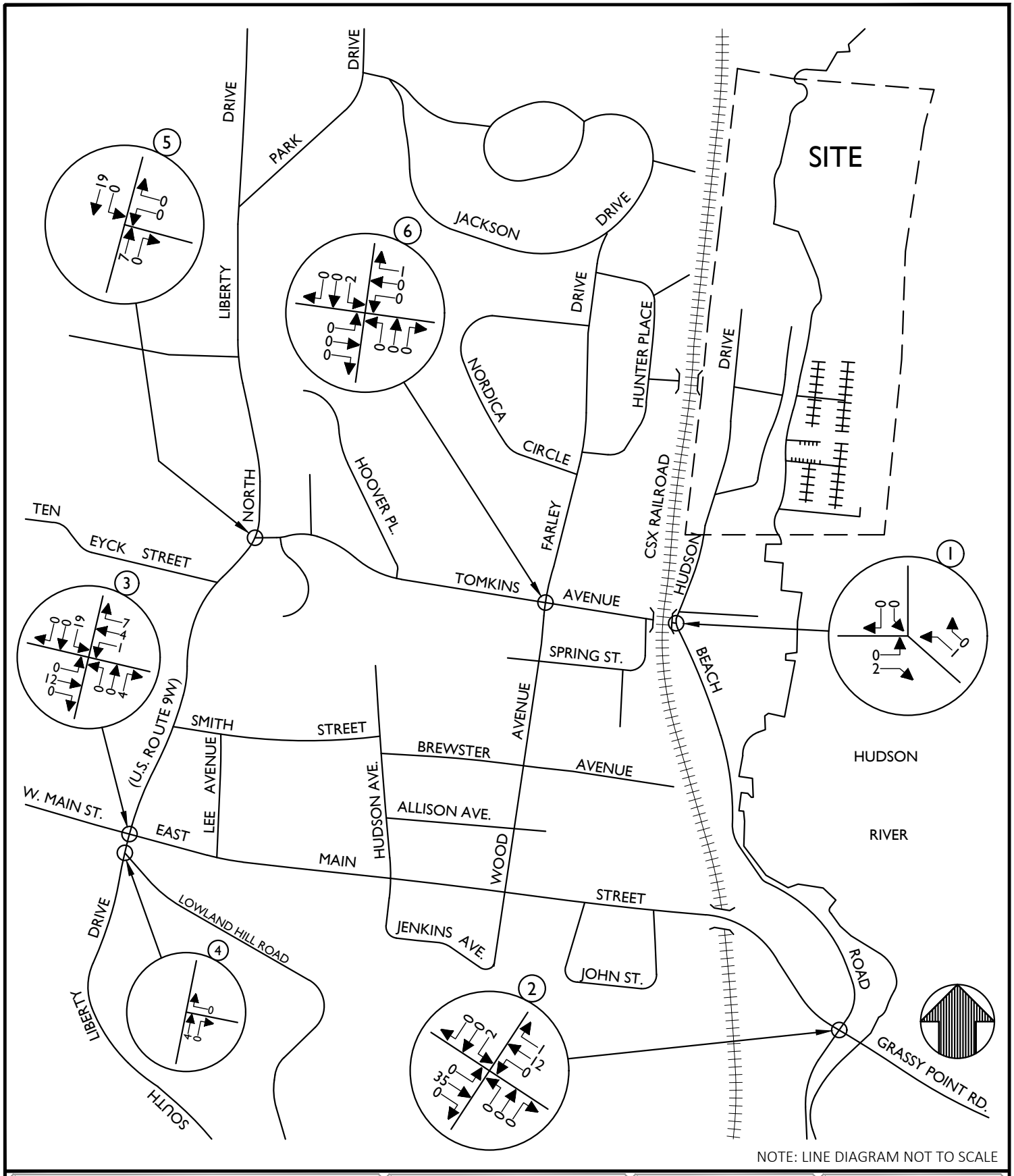
SUMMER SATURDAY PEAK HOUR

SHEET NUMBER:
FIGURE NO. 9



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SHEET TITLE:
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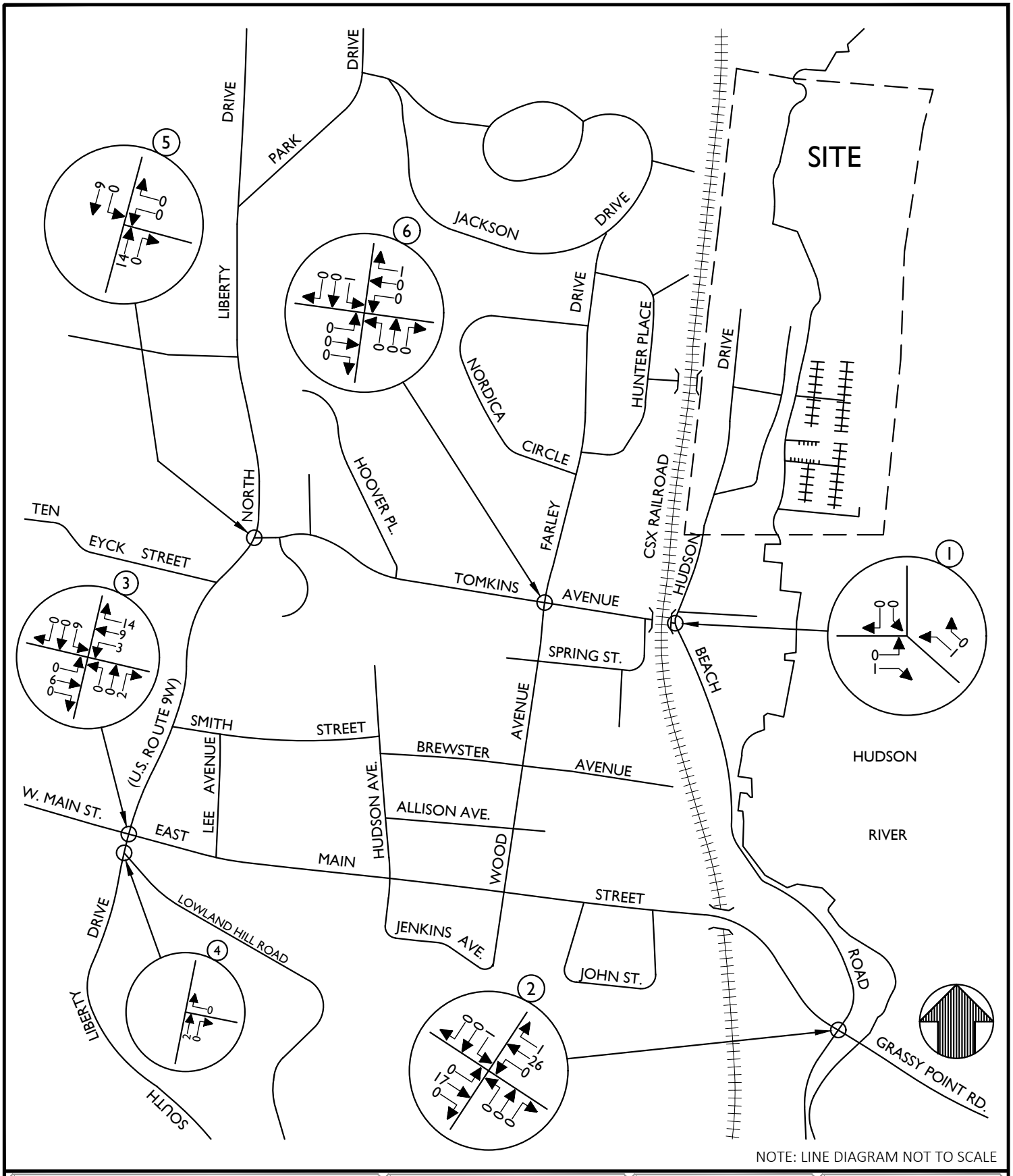
SHEET NUMBER:
FIGURE NO. 10



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SHEET TITLE:
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WEEKDAY PEAK PM HOUR

SHEET NUMBER:
FIGURE NO. 11

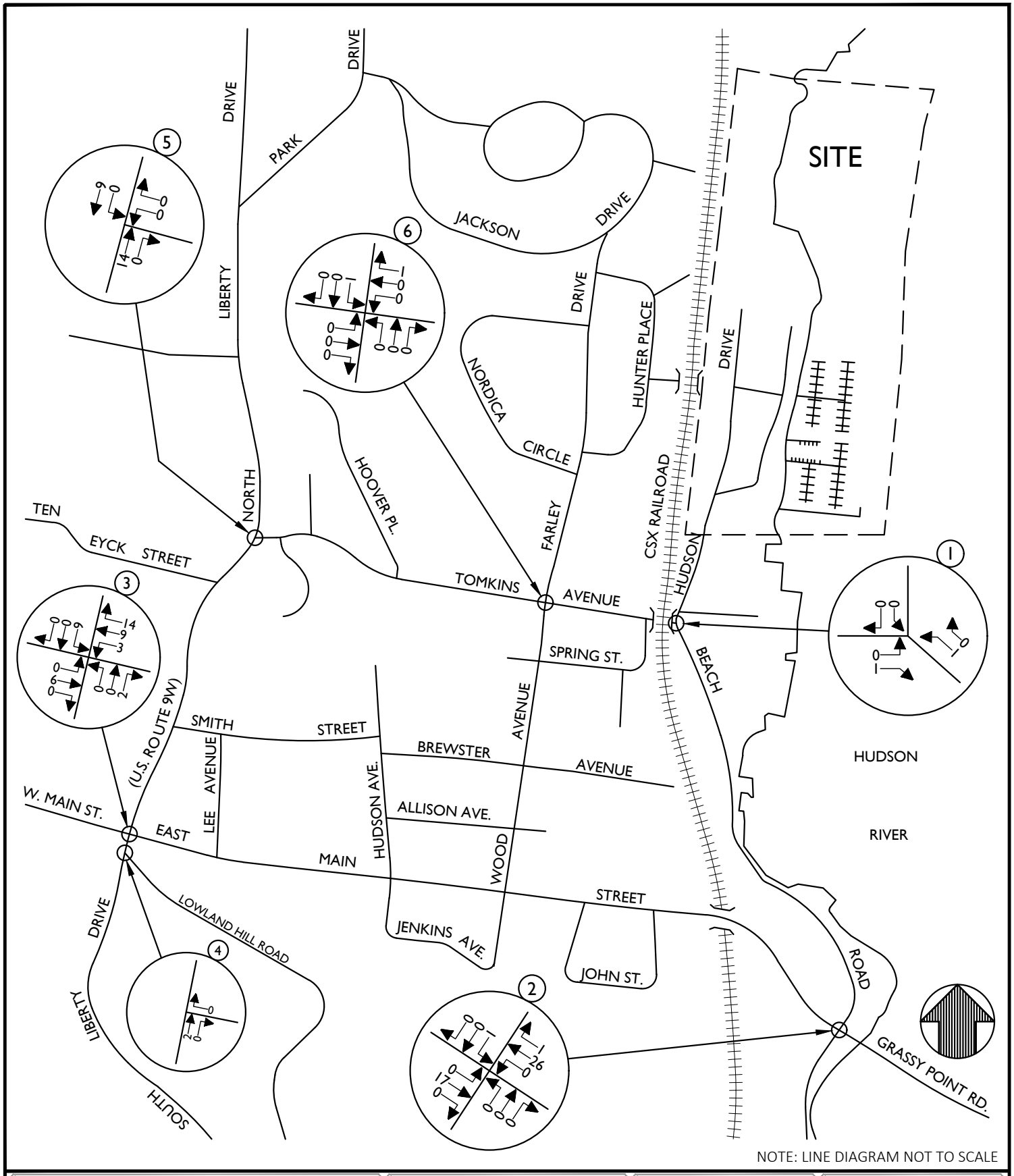

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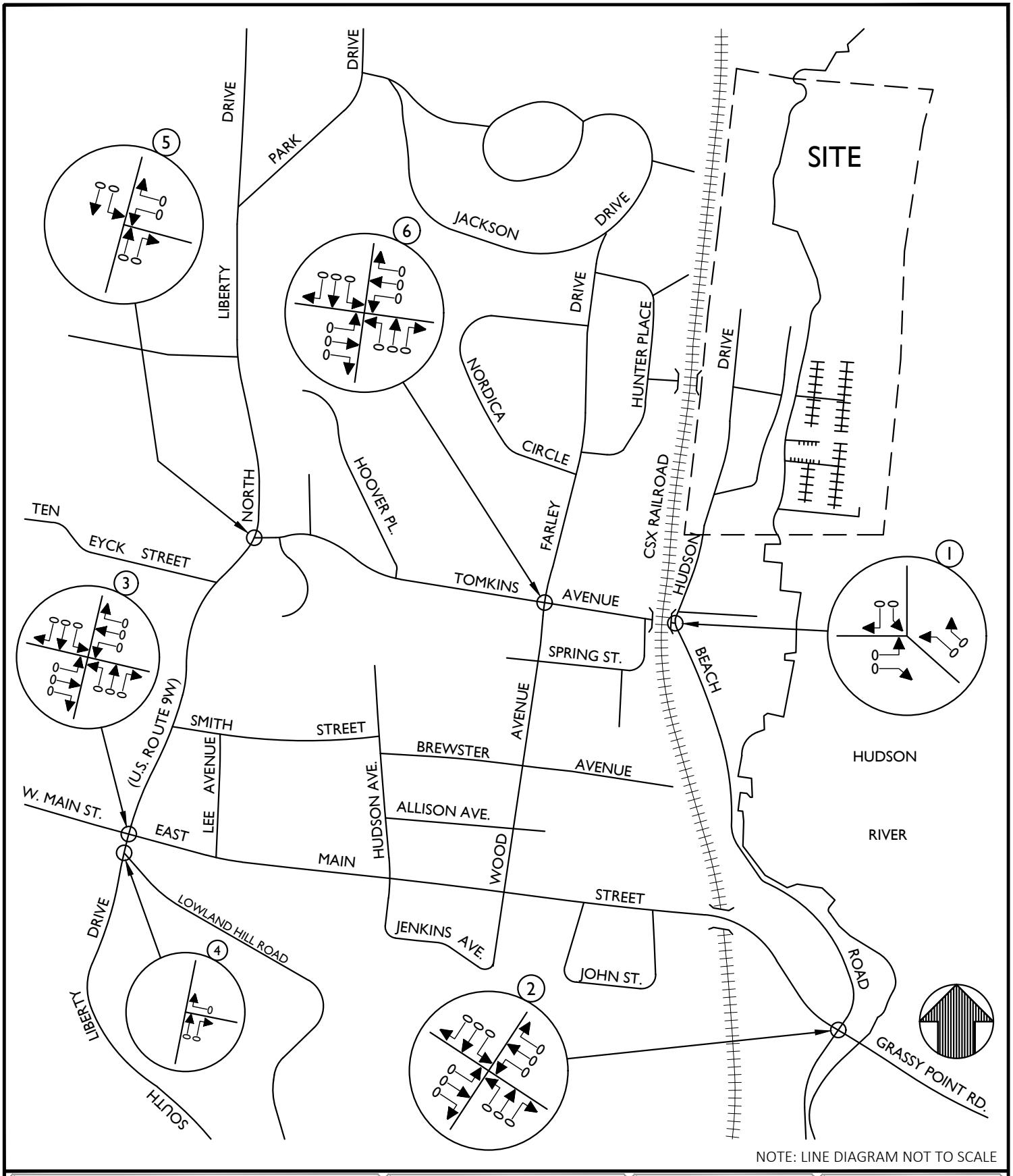
FIGURE NO. 12



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SHEET TITLE:
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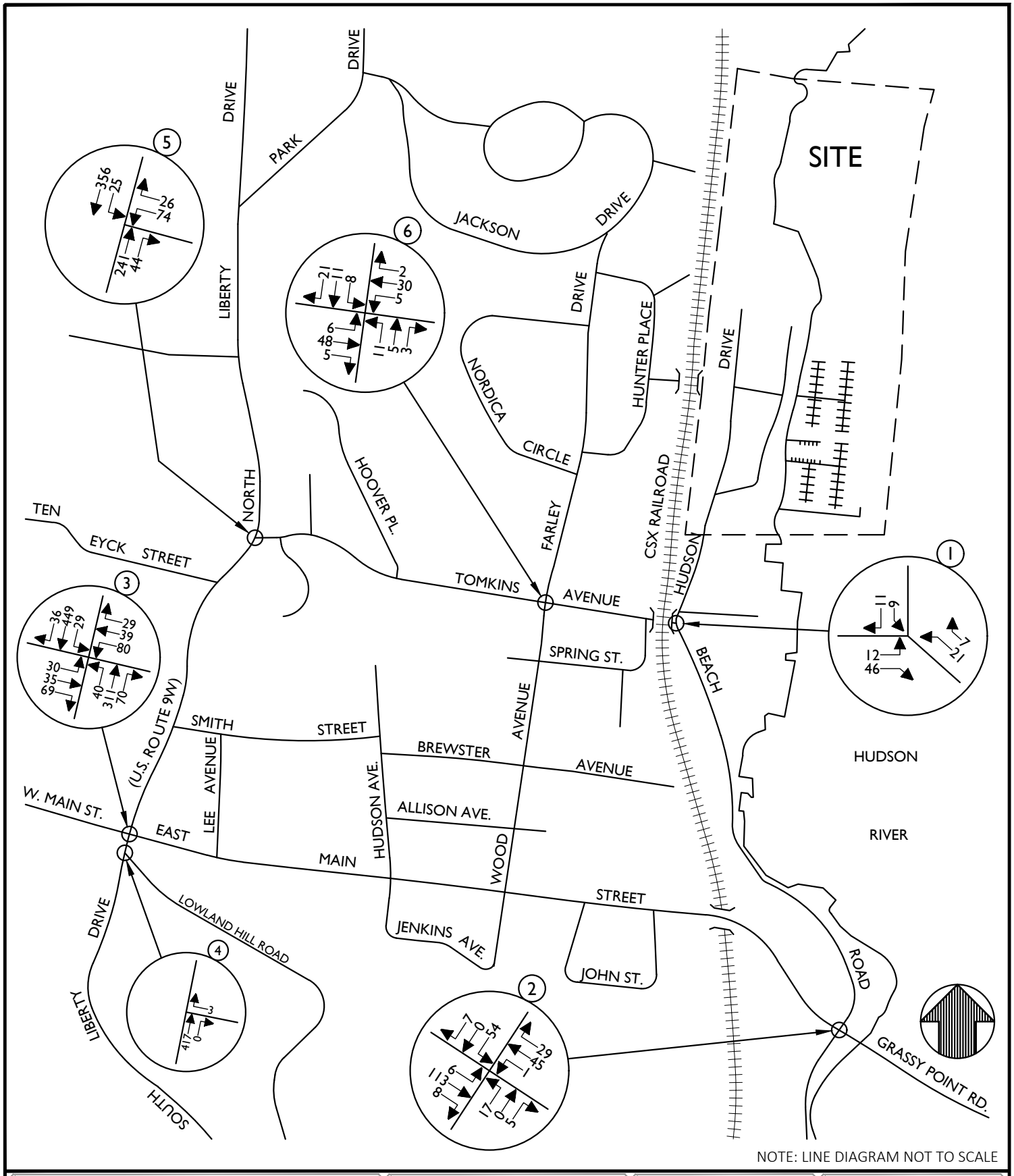
SUMMER SATURDAY PEAK HOUR

SHEET NUMBER:
FIGURE NO. 13



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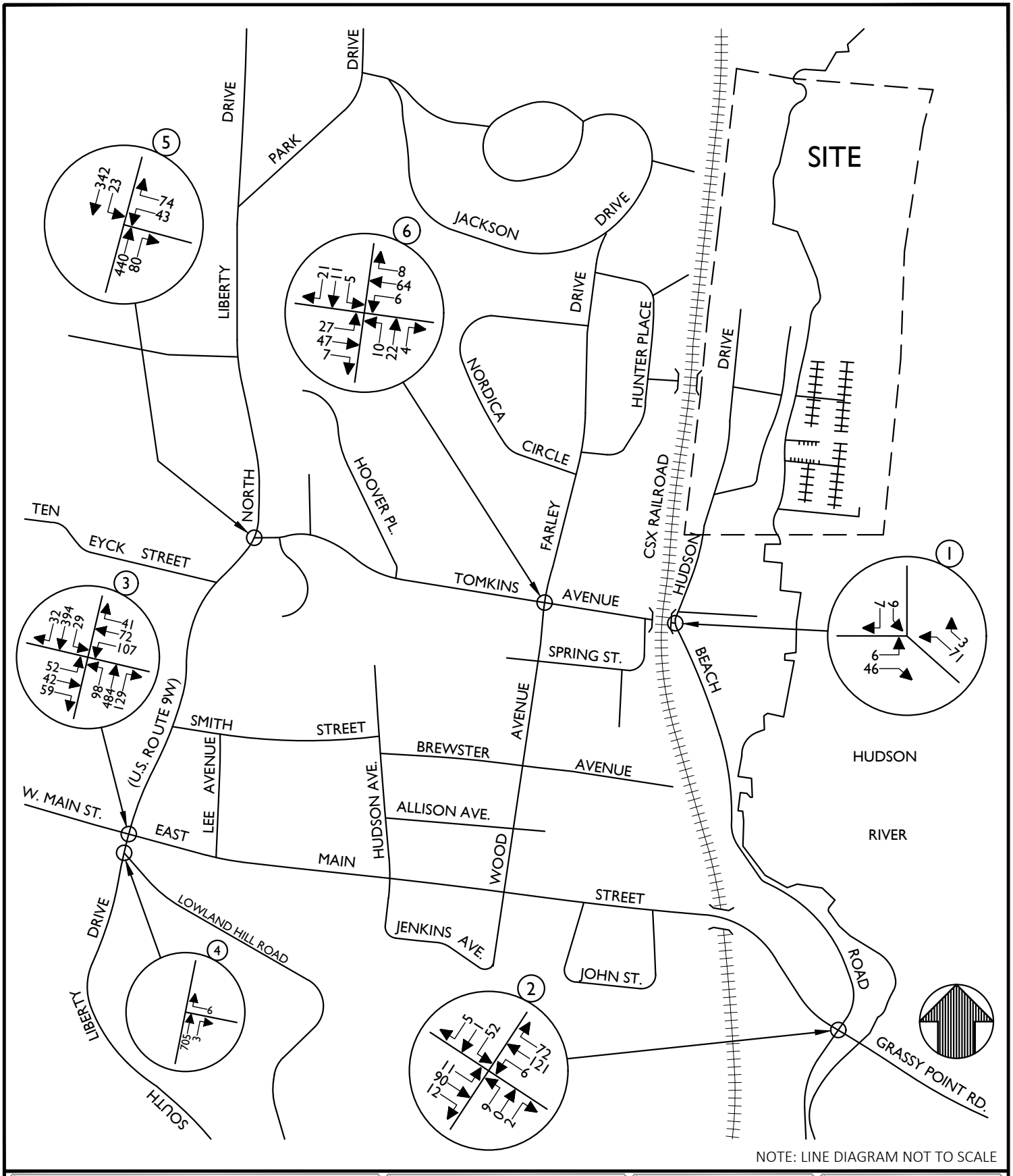
PROJECT NUMBER:	DRAWING NAME:
18005404A	190523_NT_FIGURES_TYPICAL

SHEET TITLE:
YEAR 2023 NO-BUILD TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR

SHEET NUMBER:
FIGURE NO. 14



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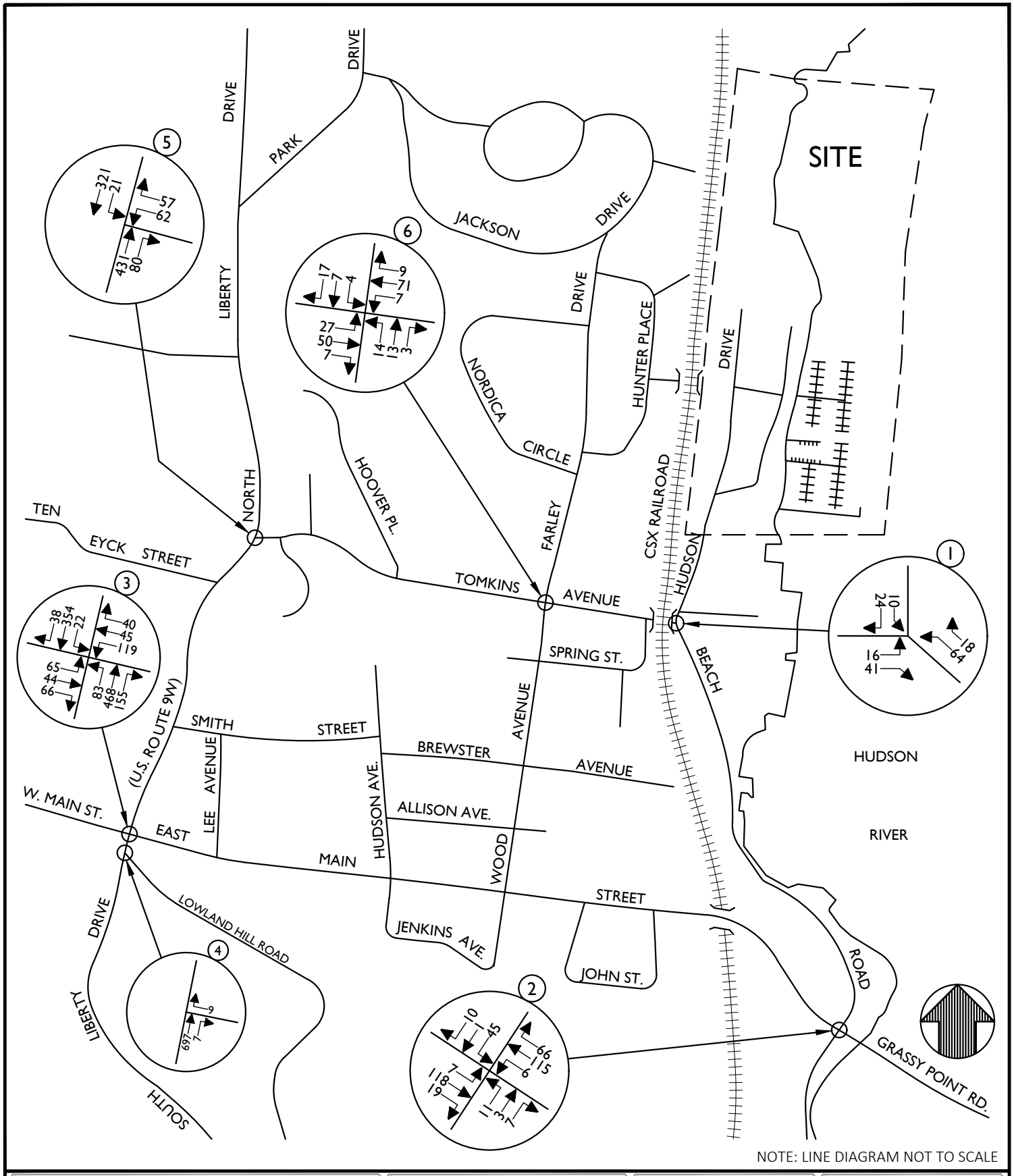
PROJECT NUMBER:	DRAWING NAME:
18005404A	190523_NT_FIGURES_TYPICAL

SHEET TITLE:
YEAR 2023 NO-BUILD TRAFFIC VOLUMES
WEEKDAY PEAK PM HOUR

SHEET NUMBER:
FIGURE NO. 15



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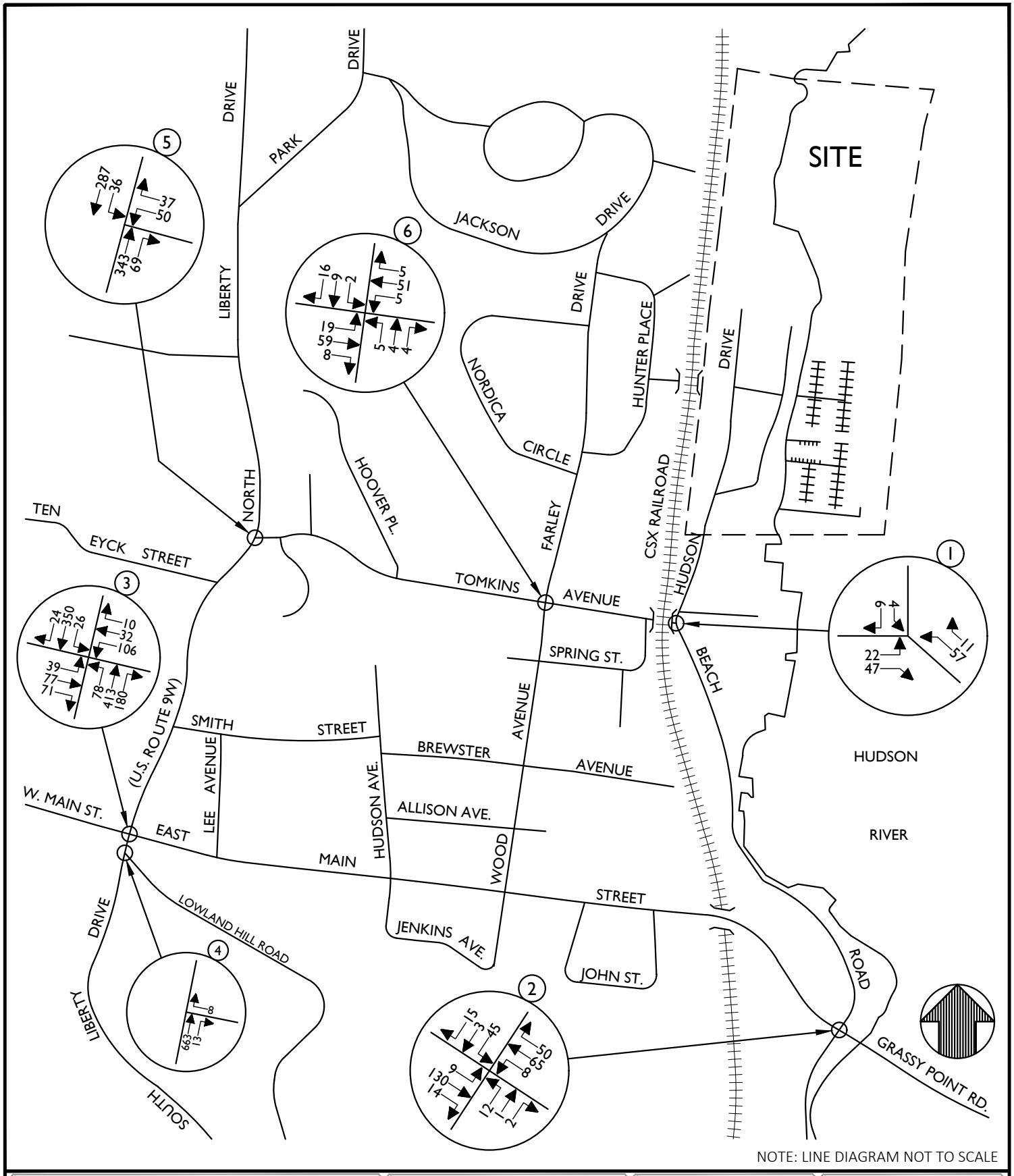
PROJECT NUMBER:	DRAWING NAME:
18005404A	190523_NT_FIGURES_SUMMER

SHEET TITLE:
YEAR 2023 NO-BUILD TRAFFIC VOLUMES
SUMMER FRIDAY PEAK PM HOUR

SHEET NUMBER:
FIGURE NO. 16



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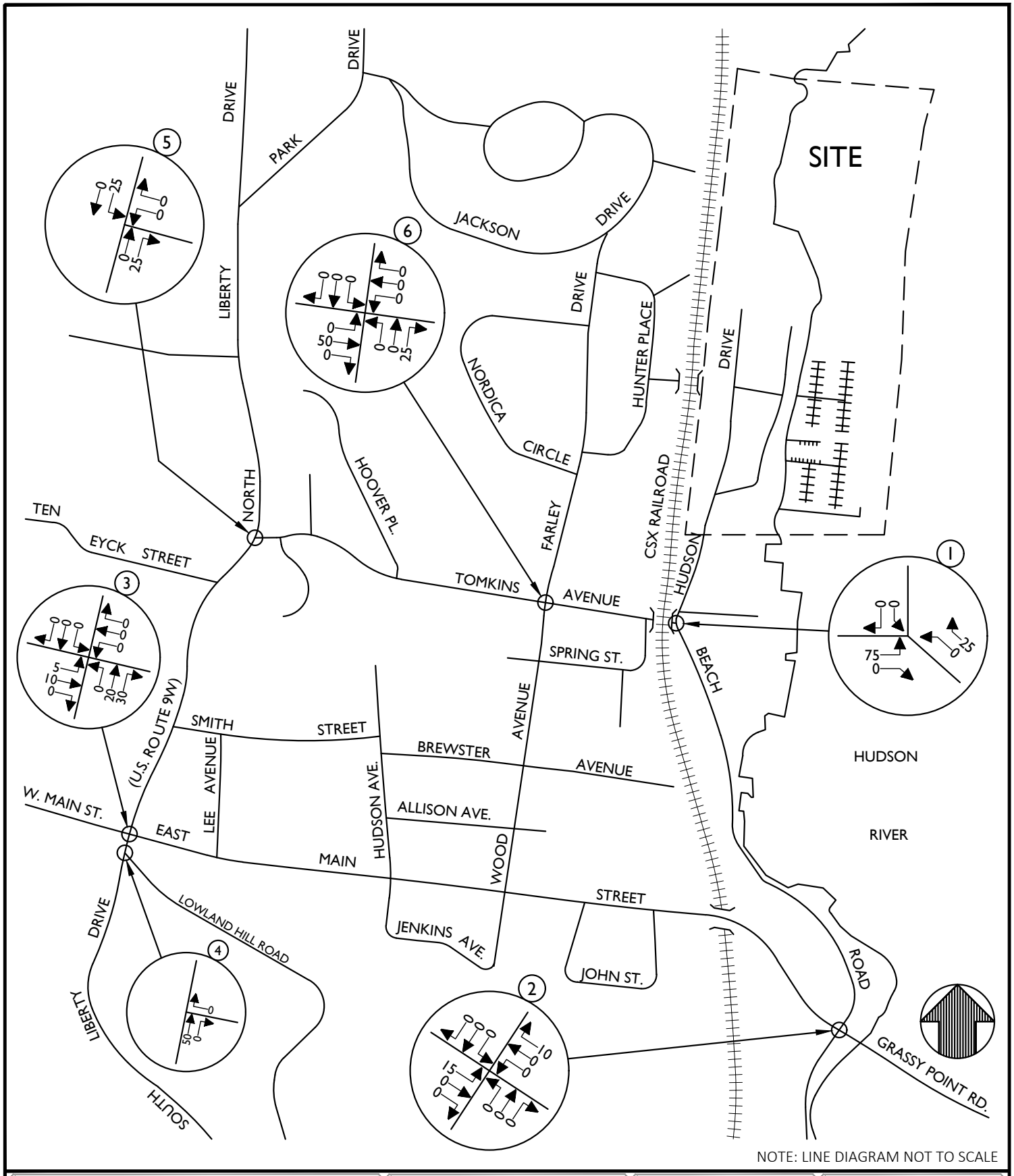
PROJECT NUMBER:	DRAWING NAME:
18005404A	190523_NT_FIGURES_SUMMER

SHEET TITLE:
YEAR 2023 NO-BUILD TRAFFIC VOLUMES
SUMMER SATURDAY PEAK HOUR

SHEET NUMBER:
FIGURE NO. 17



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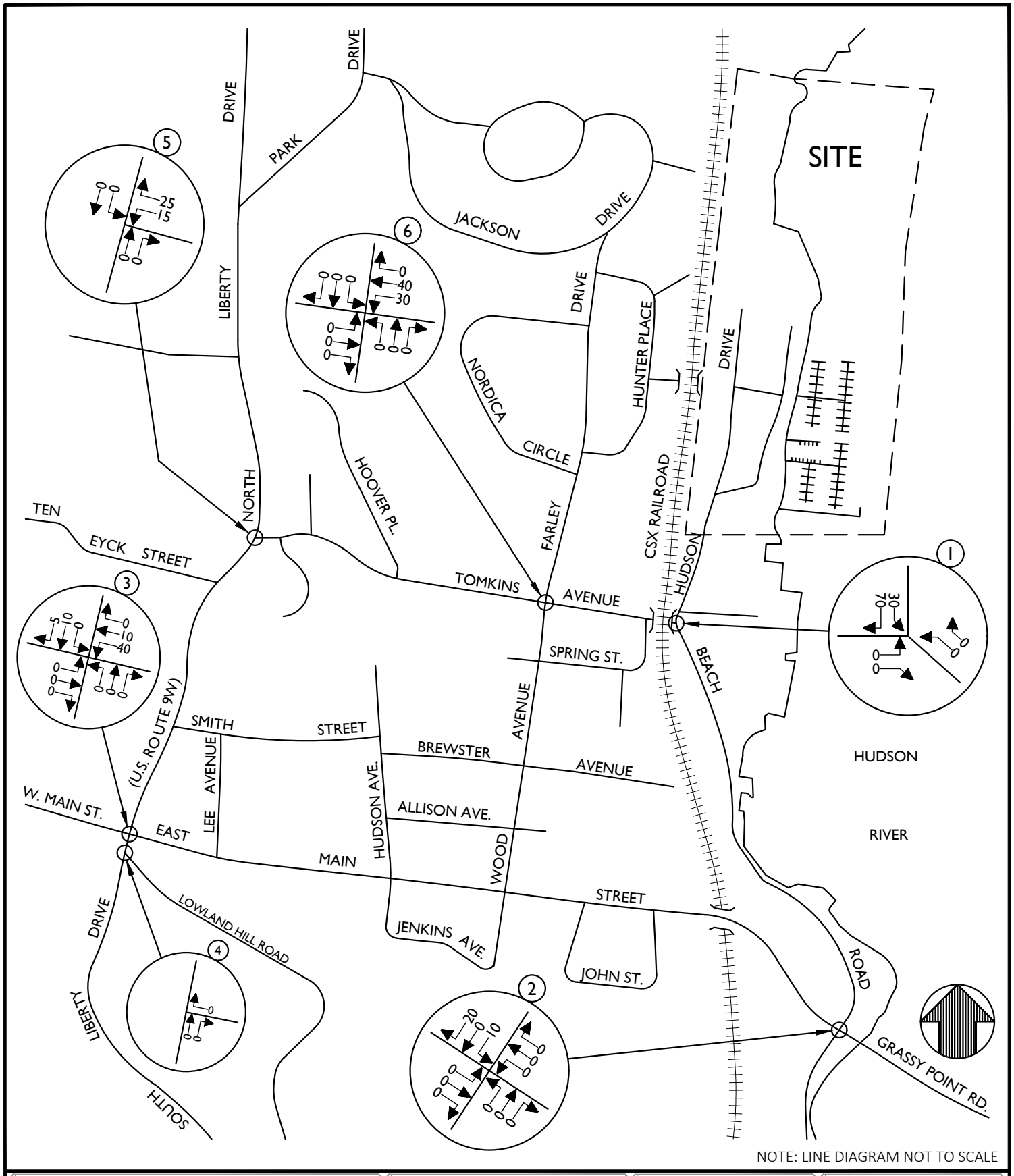
SHEET TITLE:
ARRIVAL DISTRIBUTION
RESIDENTIAL
(EXPRESSED AS A %)

SHEET NUMBER:
FIGURE NO. 18



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SHEET TITLE:
DEPARTURE DISTRIBUTION
RESIDENTIAL
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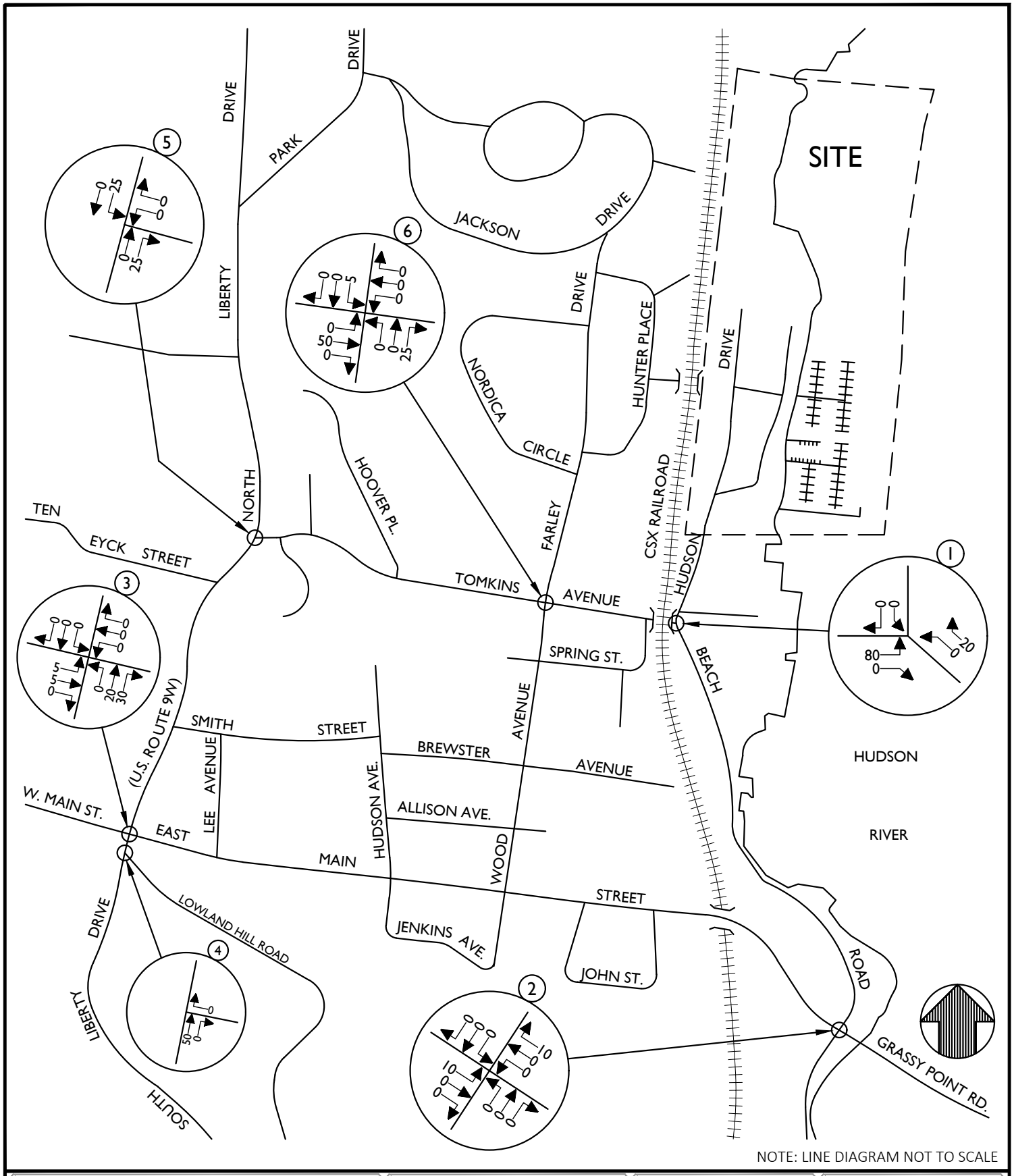
SHEET NUMBER:
FIGURE NO. 19



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SHEET TITLE:
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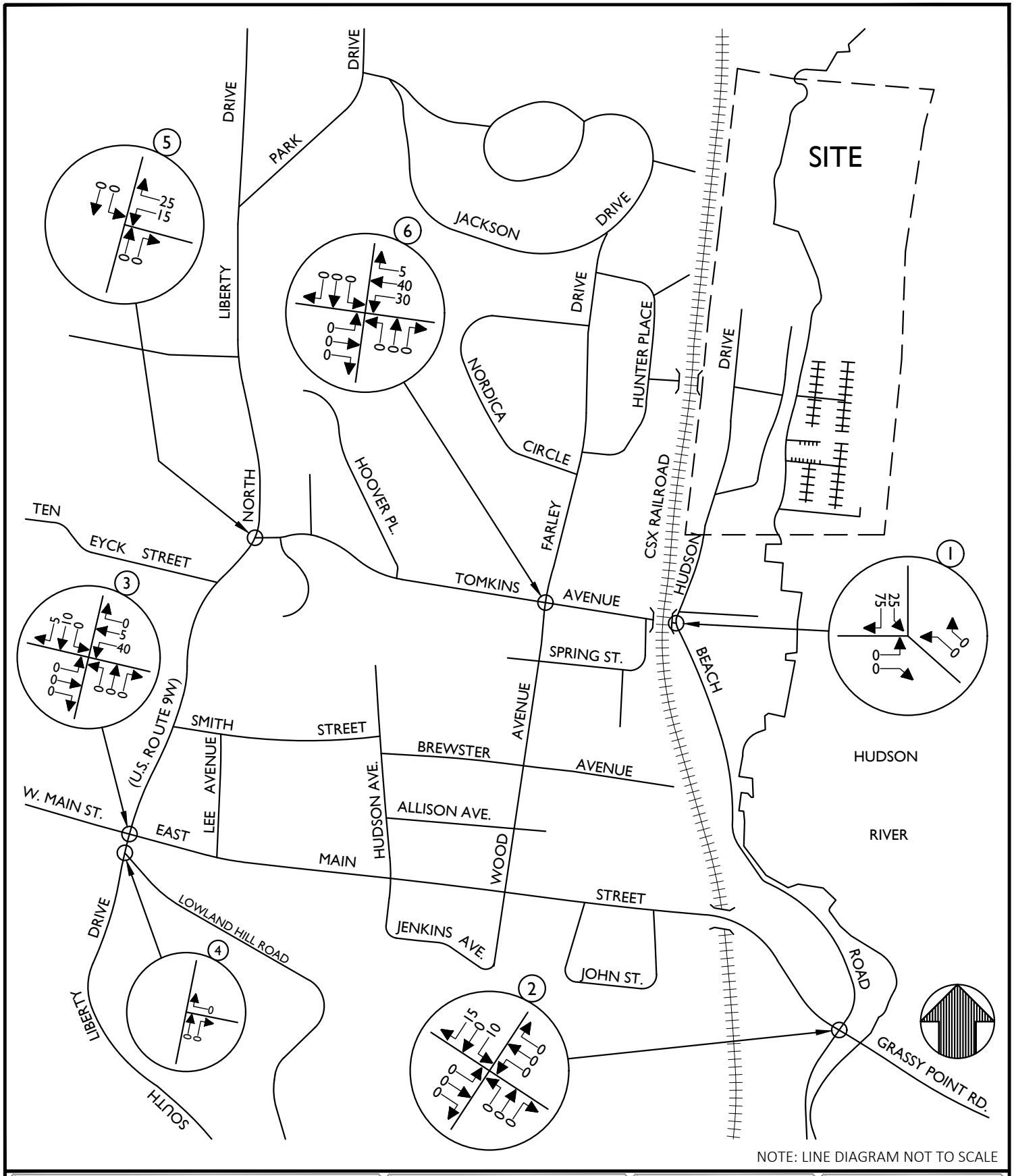
COMMERCIAL
(EXPRESSED AS A %)

SHEET NUMBER:
FIGURE NO. 20



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SHEET TITLE:
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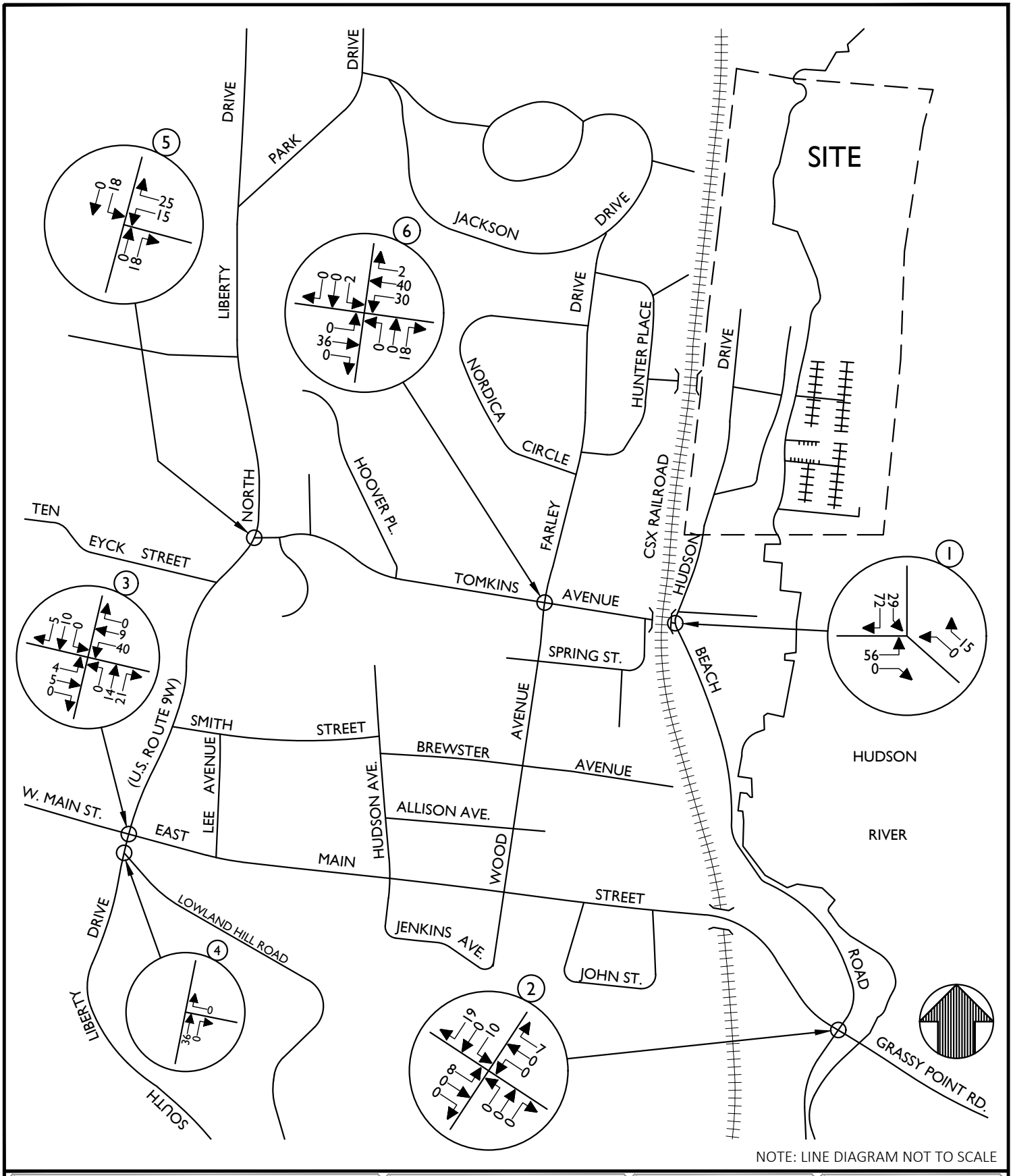
COMMERCIAL
(EXPRESSED AS A %)

SHEET NUMBER:
FIGURE NO. 21



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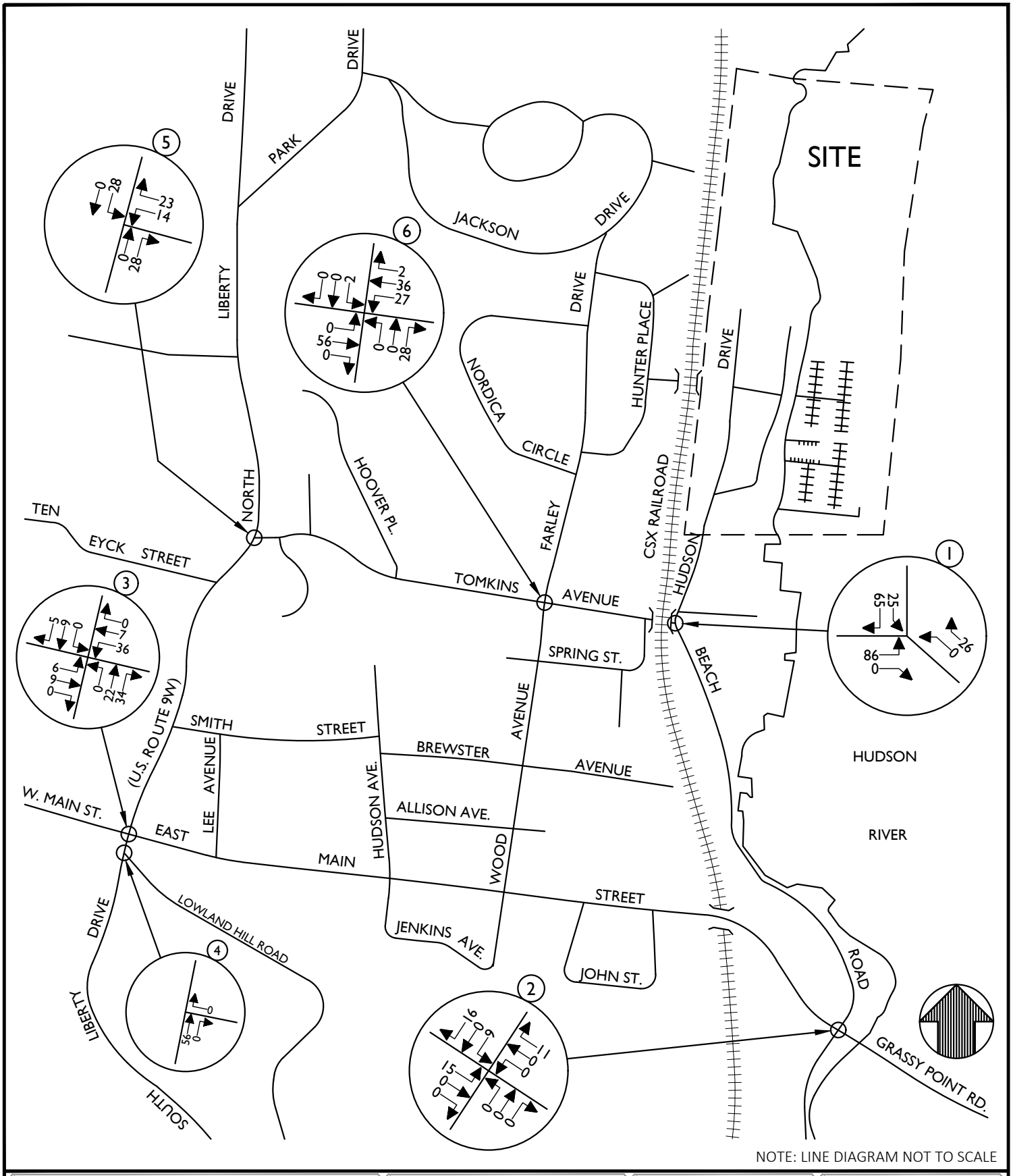
SHEET TITLE:
SITE GENERATED TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR

SHEET NUMBER:
FIGURE NO. 22



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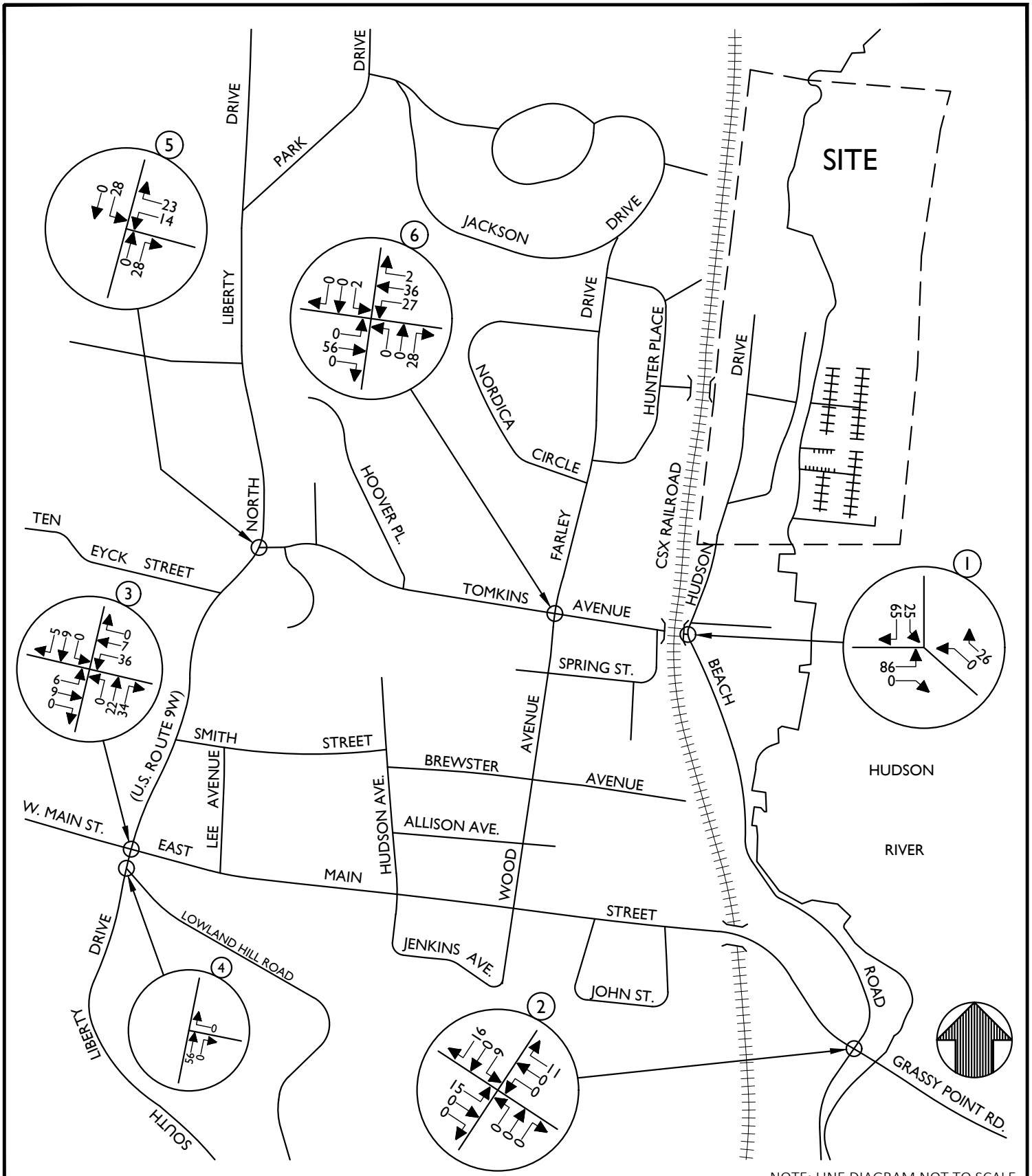
SHEET TITLE:
SITE GENERATED TRAFFIC VOLUMES
WEEKDAY PEAK PM HOUR

SHEET NUMBER:
FIGURE NO. 23



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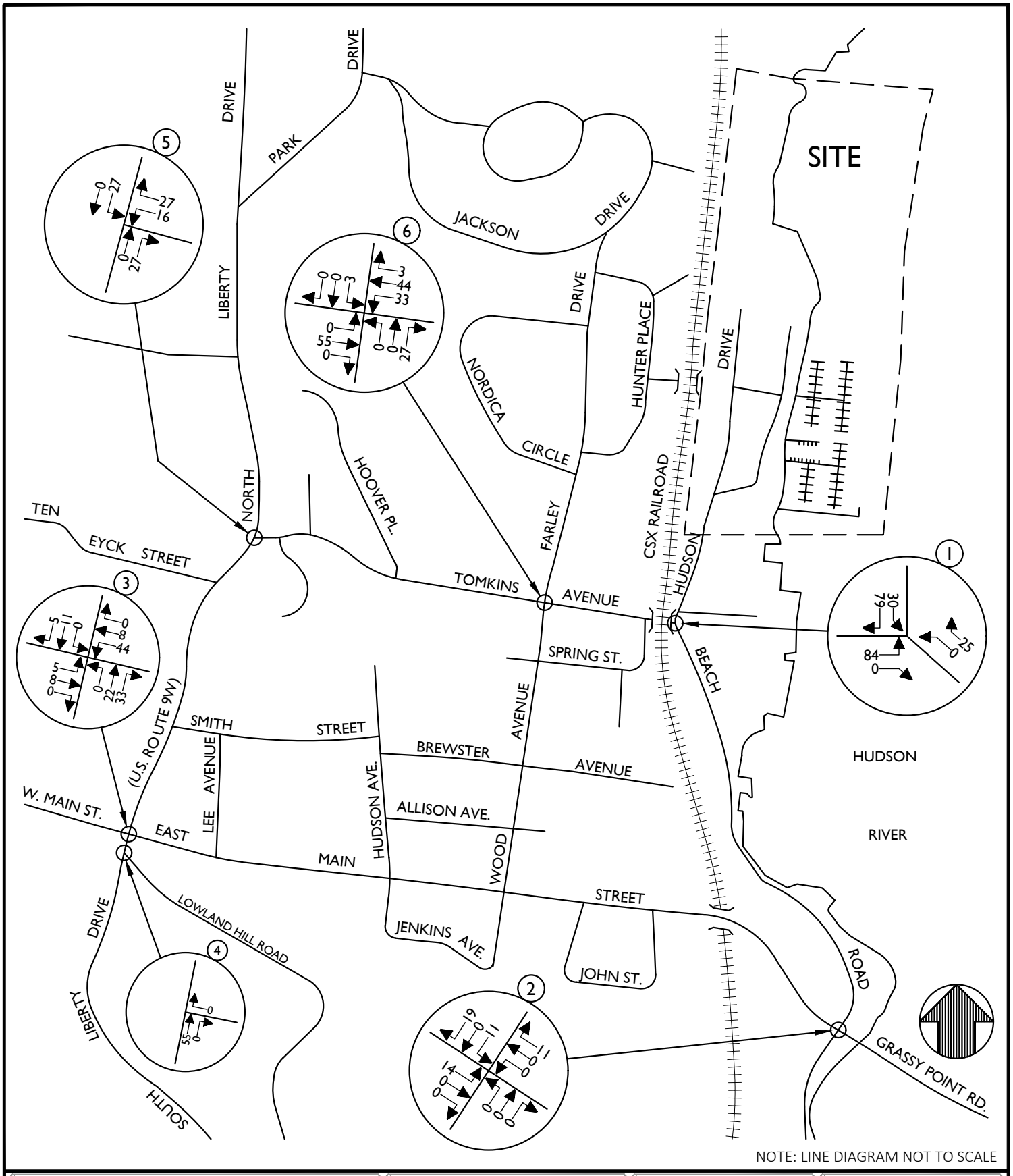
PROJECT NUMBER:	DRAWING NAME:
18005404A	190523_NT_FIGURES_SUMMER

SHEET TITLE:
SITE GENERATED TRAFFIC VOLUMES
SUMMER FRIDAY PEAK PM HOUR

SHEET NUMBER:
FIGURE NO. 24



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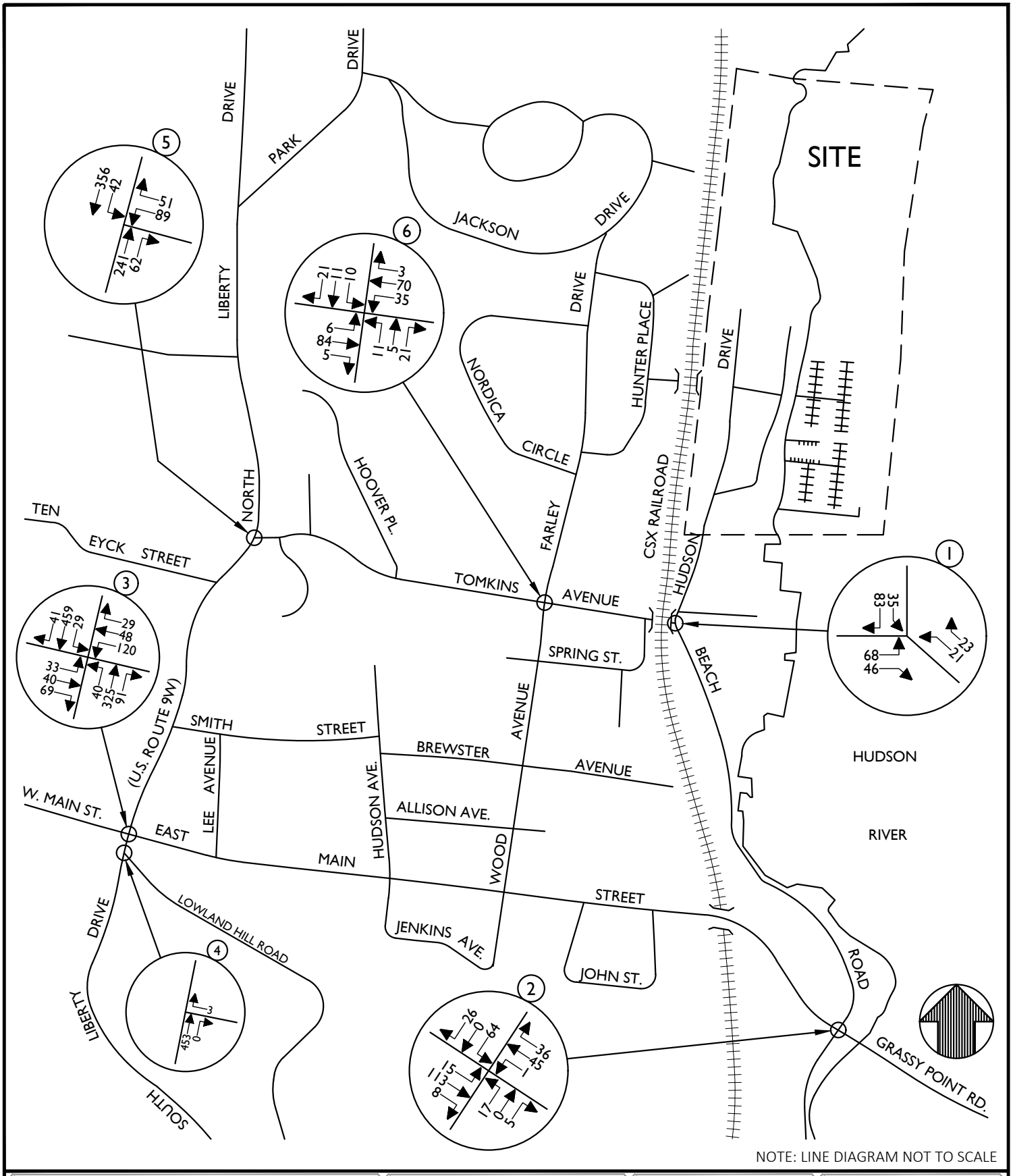
SHEET TITLE:
SITE GENERATED TRAFFIC VOLUMES
SUMMER SATURDAY PEAK HOUR

SHEET NUMBER:
FIGURE NO. 25



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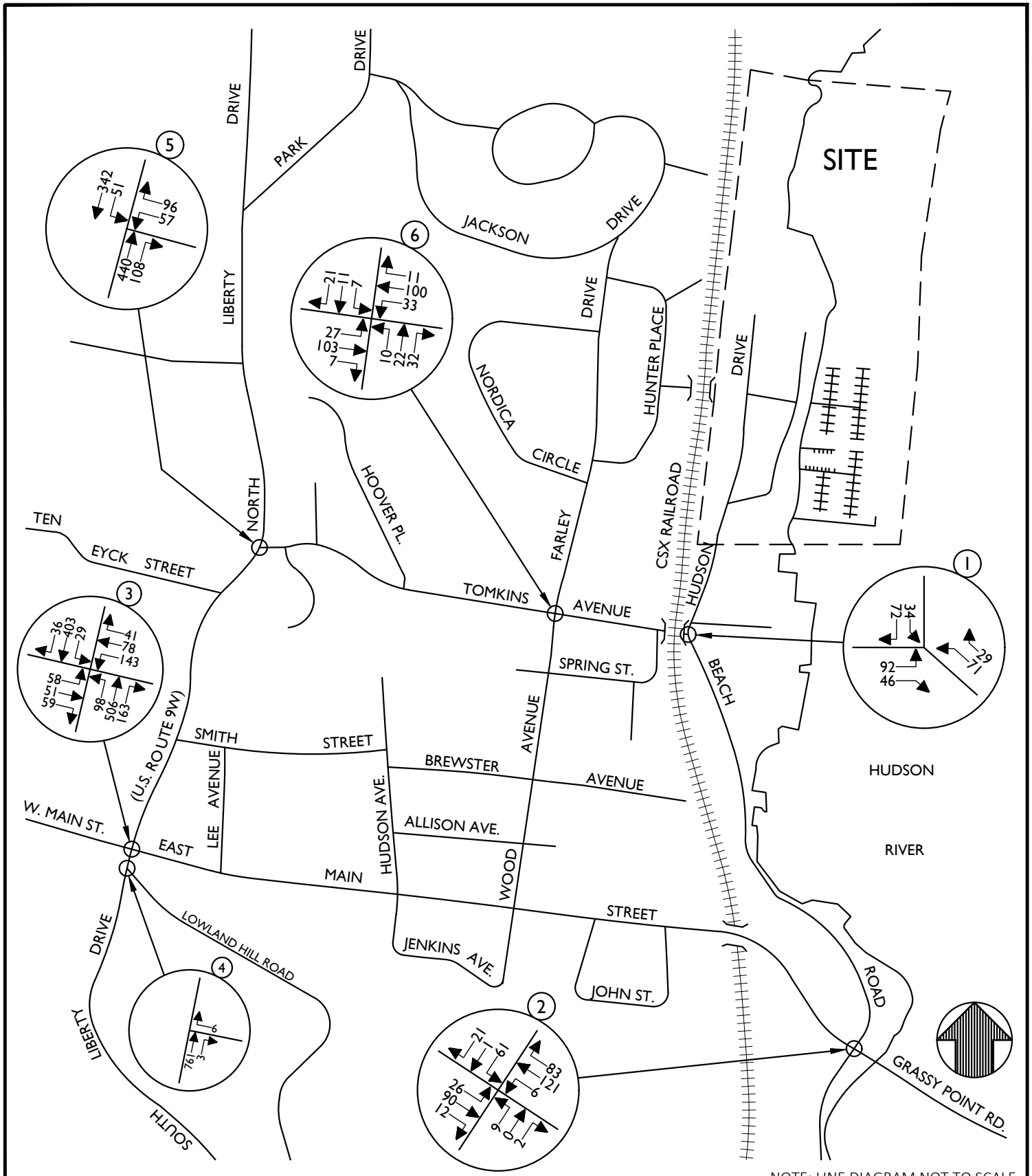
SHEET TITLE:
YEAR 2023 BUILD TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR

SHEET NUMBER:
FIGURE NO. 26



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SHEET TITLE:
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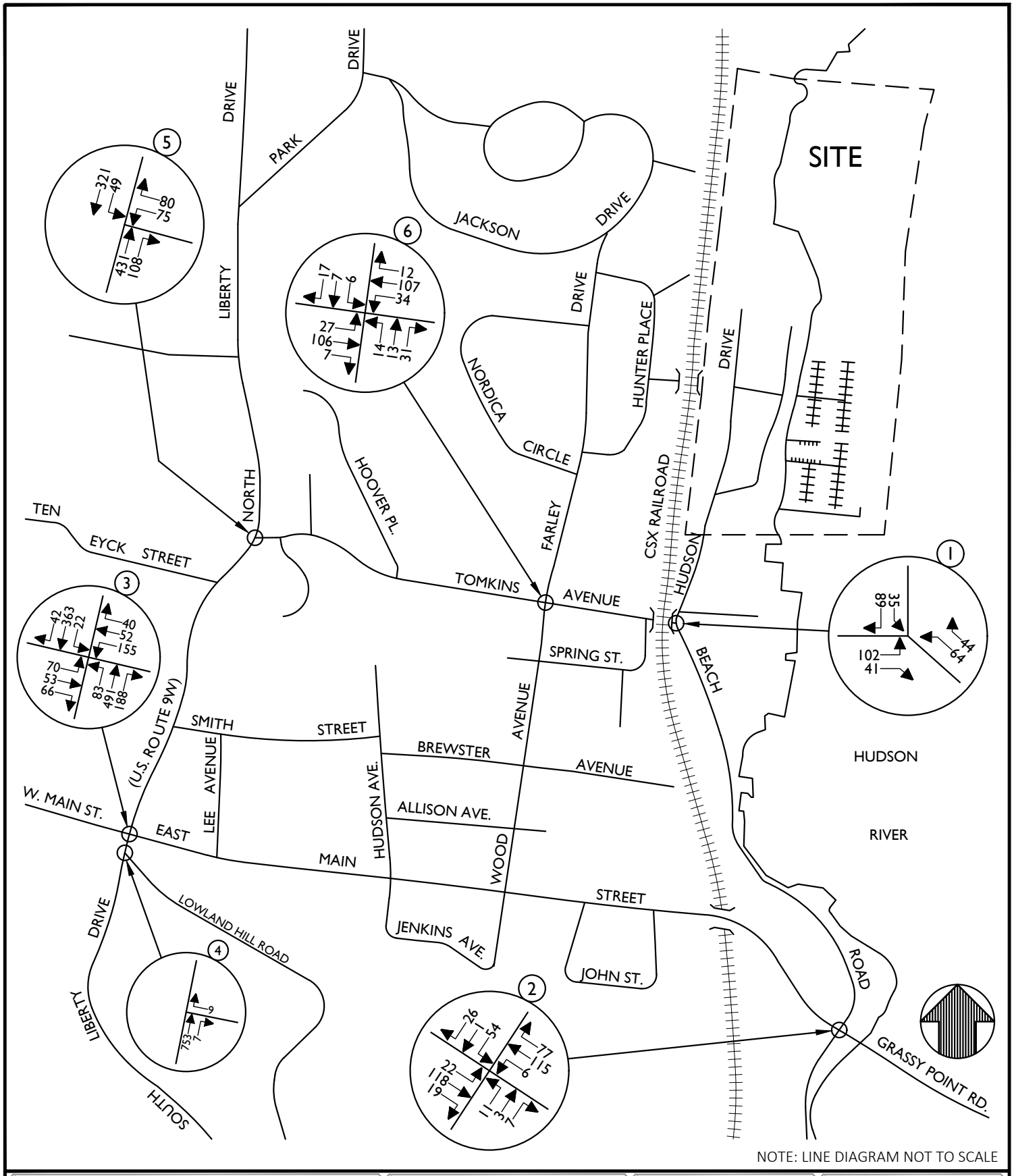
WEEKDAY PEAK PM HOUR

SHEET NUMBER:
FIGURE NO. 27



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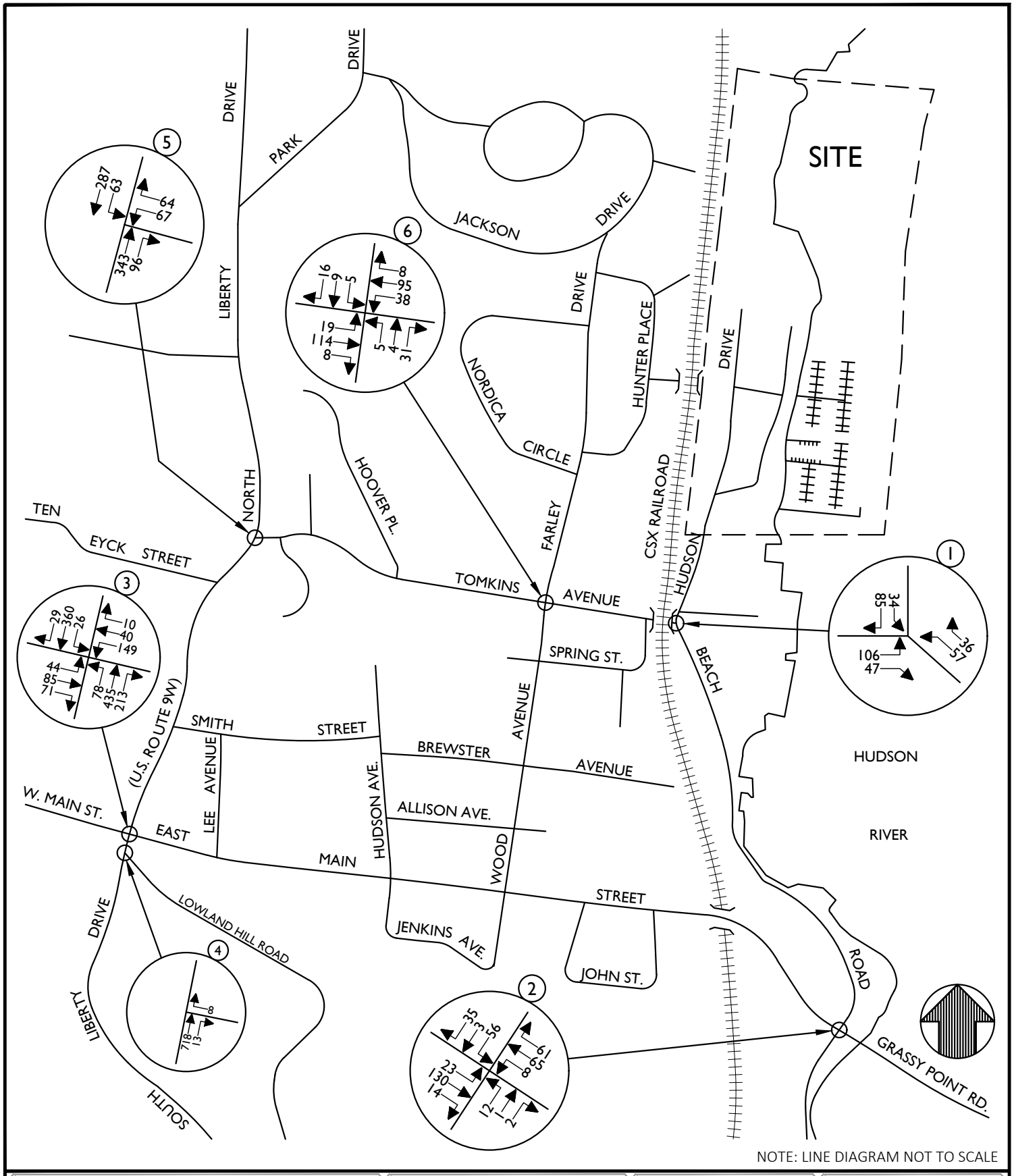
SUMMER FRIDAY PEAK PM HOUR

SHEET NUMBER:
FIGURE NO. 28



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SHEET TITLE:
YEAR 2023 BUILD TRAFFIC VOLUMES
SUMMER SATURDAY PEAK HOUR

SHEET NUMBER:
FIGURE NO. 29

EAGLE BAY

APPENDIX B

TABLES

TABLE NO. 1

HOURLY TRIP GENERATION RATES & ANTICIPATED SITE GENERATED TRAFFIC VOLUMES

EAGLE BAY	ENTRY		EXIT		TOTAL	
	HTGR*	VOLUME	HTGR*	VOLUME	HTGR*	VOLUME
RESIDENTIAL (1) (264 UNITS)						
WEEKDAY PEAK AM HOUR	0.09	25	0.27	70	0.36	95
WEEKDAY PEAK PM HOUR	0.27	71	0.17	45	0.44	116
SUMMER FRIDAY PEAK PM HOUR	0.27	71	0.17	45	0.44	116
SUMMER SATURDAY PEAK HOUR	0.22	57	0.22	59	0.44	116
RETAIL (2) (3,200 s.f.)						
WEEKDAY PEAK AM HOUR	1.62	5	1.38	5	3.00	10
WEEKDAY PEAK PM HOUR	2.11	6	2.11	7	4.22	13
SUMMER FRIDAY PEAK PM HOUR	2.11	6	2.11	7	4.22	13
SUMMER SATURDAY PEAK HOUR	2.34	7	2.16	7	4.50	14
OFFICE (3) (7,200 s.f.)						
WEEKDAY PEAK AM HOUR	1.00	7	0.16	1	1.16	8
WEEKDAY PEAK PM HOUR	0.18	1	0.97	7	1.15	8
SUMMER FRIDAY PEAK PM HOUR	0.18	1	0.97	7	1.15	8
SUMMER SATURDAY PEAK HOUR	0.29	2	0.24	2	0.53	4
RESTAURANT (4) (3,100 s.f.)						
WEEKDAY PEAK AM HOUR	5.47	17	4.47	14	9.94	31
WEEKDAY PEAK PM HOUR	6.06	18	3.71	12	9.77	30
SUMMER FRIDAY PEAK PM HOUR	6.06	18	3.71	12	9.77	30
SUMMER SATURDAY PEAK HOUR	5.71	18	5.48	17	11.19	35
PUBLIC ACCESS AREA (5) (8) (1.4 ACRES)						
WEEKDAY PEAK AM HOUR	6.43	9	4.29	6	10.72	15
WEEKDAY PEAK PM HOUR	4.29	6	6.43	9	10.72	15
SUMMER FRIDAY PEAK PM HOUR	4.29	6	6.43	9	10.72	15
SUMMER SATURDAY PEAK HOUR	10.71	15	8.75	12	19.46	27
MARINA (6) (7) (8) (100 SLIPS)						
WEEKDAY PEAK AM HOUR	0.08	8	0.04	4	0.12	12
WEEKDAY PEAK PM HOUR	0.10	10	0.10	10	0.20	20
SUMMER FRIDAY PEAK PM HOUR	0.10	10	0.10	10	0.20	20
SUMMER SATURDAY PEAK HOUR	0.10	10	0.12	12	0.22	22
TOTAL TRIPS (9)						
WEEKDAY PEAK AM HOUR	**------**	**71**	**------**	**100**	**------**	**171**
WEEKDAY PEAK PM HOUR	**------**	**112**	**------**	**90**	**------**	**202**
SUMMER FRIDAY PEAK PM HOUR	**------**	**112**	**------**	**90**	**------**	**202**
SUMMER SATURDAY PEAK HOUR	**------**	**109**	**------**	**109**	**------**	**218**

THE HOURLY TRIP GENERATION RATES (HTGR) ARE BASED ON DATA PUBLISHED BY THE INSTITUTE OF TRANSPORTATION ENGINEERS (ITE) - TRIP GENERATION HANDBOOK - 10TH EDITION

(1) ITE LAND USE 221 - MID-RISE APARTMENTS

(2) ITE LAND USE 820 - SHOPPING CENTER

(3) ITE LAND USE 710 - GENERAL OFFICE

(4) ITE LAND USE 932 - HIGH-TURNOVER SIT-DOWN RESTAURANT

(5) ITE LAND USE 411 - PUBLIC PARK

(6) ITE LAND USE 420 - MARINA

(7) ASSUMES PEAK MARINA TRIP GENERATION

(8) AS NOTED IN THE TRAFFIC IMPACT STUDY, THE EXISTING TRAFFIC TO/FROM THE SITE ASSOCIATED WITH THE EXISTING USES WERE LEFT IN THE FUTURE TRAFFIC CONDITIONS TO CONSERVATIVELY ACCOUNT FOR THE USE OF THE PUBLIC ACCESS AREA AND BOAT SLIPS.

(9) IT SHOULD BE NOTED NO REDUCTION IN TRIP GENERATION (CREDIT) FOR THE LIKELY "INTERPLAY" BETWEEN THE ABOVE USES WAS TAKEN

TABLE NO. 2

LEVEL OF SERVICE SUMMARY TABLE

				2018 EXISTING				2023 NO-BUILD				2023 BUILD			
				AM	PM	SUMMER FRIDAY PM	SUMMER SAT	AM	PM	SUMMER FRIDAY PM	SUMMER SAT	AM	PM	SUMMER FRIDAY PM	SUMMER SAT
1	TOMKINS AVENUE, BEACH ROAD & HUDSON DRIVE														
	UNSIGNALIZED														
	TOMKINS AVENUE	EB	L-T	A[7.3]	A[7.4]	A[7.4]	A[7.4]	A[7.3]	A[7.4]	A[7.4]	A[7.4]	A[7.4]	A[7.6]	A[7.6]	A[7.6]
	HUDSON DRIVE	SB	L-R	A[8.9]	A[9.1]	A[9.0]	A[9.0]	A[8.9]	A[9.1]	A[9.0]	A[9.0]	B[10.0]	B[10.4]	B[10.3]	B[10.2]
	W/ ALL-WAY "STOP" SIGN CONTROL														
	TOMKINS AVENUE	EB	L-T	--	--	--	--	A[7.4]	A[7.3]	A[7.5]	A[7.5]	A[8.3]	A[8.6]	A[8.6]	A[8.6]
	BEACH ROAD	WB	T-R	--	--	--	--	A[7.6]	A[7.5]	A[7.4]	A[7.3]	A[7.9]	A[8.0]	A[7.8]	A[7.7]
	HUDSON DRIVE	SB	L-R	--	--	--	--	A[7.2]	A[7.2]	A[7.0]	A[7.0]	A[8.1]	A[7.9]	A[8.0]	A[7.9]
	OVERALL INTERSECTION			**--**	**--**	**--**	**--**	**A[7.4]**	**A[7.4]**	**A[7.4]**	**A[7.4]**	**A[8.2]**	**A[8.2]**	**A[8.2]**	**A[8.1]**
2	E. MAIN STREET/GRASSY POINT ROAD & BEACH ROAD														
	UNSIGNALIZED														
	E. MAIN STREET	EB	L-T-R	A[7.7]	A[7.8]	A[7.5]	A[7.5]	A[7.8]	A[7.9]	A[7.6]	A[7.5]	A[7.8]	A[8.0]	A[7.7]	A[7.5]
	GRASSY POINT ROAD	WB	L-T-R	A[7.5]	A[7.4]	A[7.5]	A[7.5]	A[7.5]	A[7.4]	A[7.5]	A[7.5]	A[7.5]	A[7.4]	A[7.5]	A[7.5]
	BA MAR DRIVE	NB	L-T-R	A[9.9]	B[10.5]	B[10.3]	B[10.9]	B[10.5]	B[11.0]	B[10.7]	B[11.0]	B[10.8]	B[11.6]	B[11.2]	B[11.5]
	BEACH ROAD	SB	L-T-R	B[10.0]	B[10.8]	B[10.3]	A[9.9]	B[10.7]	B[11.5]	B[10.7]	B[10.0]	A[9.9]	B[11.0]	B[10.2]	A[9.6]
3	U.S. ROUTE 9W & E./W. MAIN STREET														
	SIGNALIZED														
	E. MAIN STREET	EB	L	B[19.5]	C[25.3]	C[25.6]	C[25.1]	B[19.9]	C[26.2]	C[26.5]	C[25.7]	C[22.1]	C[29.7]	C[30.1]	C[29.6]
		EB	T-R	C[24.7]	C[31.6]	C[30.8]	C[31.8]	C[25.3]	C[32.7]	C[32.0]	C[32.7]	C[27.9]	D[37.4]	D[36.6]	D[37.7]
		EB APPROACH		**C[23.4]**	**C[29.4]**	**C[28.8]**	**C[30.4]**	**C[24.1]**	**C[30.4]**	**C[30.0]**	**C[31.2]**	**C[26.5]**	**C[34.7]**	**C[34.2]**	**D[35.9]**
	W. MAIN STREET	WB	L	B[19.4]	C[24.8]	C[25.0]	C[24.6]	B[19.7]	C[25.5]	C[25.8]	C[25.2]	C[21.2]	C[28.6]	C[29.0]	C[28.0]
		WB	T-R	C[21.8]	C[28.1]	C[27.8]	C[26.0]	C[22.2]	C[29.4]	C[29.1]	C[26.6]	C[23.1]	C[31.9]	C[31..8]	C[29.1]
		WB APPROACH		**C[20.4]**	**C[26.3]**	**C[26.0]**	**C[25.0]**	**C[20.9]**	**C[27.5]**	**C[27.2]**	**C[25.6]**	**C[21.9]**	**C[30.1]**	**C[30.0]**	**C[28.3]**
	U.S. ROUTE 9W	NB	L	B[13.4]	B[11.5]	B[12.1]	B[11.7]	B[13.7]	B[11.8]	B[12.4]	B[11.8]	B[14.4]	B[12.3]	B[12.9]	B[12.6]
		NB	T-R	B[18.2]	C[22.0]	C[25.8]	C[23.7]	B[18.8]	C[23.9]	C[28.1]	C[25.2]	C[20.2]	C[32.1]	D[37.3]	C[34.3]
		NB APPROACH		**B[17.7]**	**C[20.5]**	**C[24.2]**	**C[22.3]**	**B[18.3]**	**C[22.3]**	**C[26.3]**	**C[23.7]**	**B[19.7]**	**C[29.6]**	**C[34.7]**	**C[31.9]**
	U.S. ROUTE 9W	SB	L	B[12.0]	B[14.2]	B[15.4]	B[14.9]	B[12.6]	B[14.9]	B[16.2]	B[15.3]	B[13.7]	B[17.3]	B[18.7]	B[17.9]
		SB	T-R	B[16.9]	B[15.5]	B[16.0]	B[15.3]	B[17.5]	B[15.8]	B[16.3]	B[15.5]	B[18.3]	B[16.6]	B[17.1]	B[16.5]
		SB APPROACH		**B[16.8]**	**B[15.4]**	**B[15.9]**	**B[15.3]**	**B[17.3]**	**B[15.7]**	**B[16.3]**	**B[15.5]**	**B[18.0]**	**B[16.6]**	**B[17.2]**	**B[16.6]**
	OVERALL INTERSECTION			**B[18.2]**	**C[20.6]**	**C[22.7]**	**C[21.7]**	**B[18.8]**	**C[21.9]**	**C[24.1]**	**C[22.6]**	**C[20.1]**	**C[26.5]**	**C[29.3]**	**C[27.8]**
	W/ SIGNAL TIMING CHANGES														
	E. MAIN STREET	EB	L	------	------	------	------	------	------	------	------	------	C[27.4]	C[28.8]	C[27.0]
		EB	T-R	------	------	------	------	------	------	------	------	------	C[34.2]	C[34.9]	C[34.3]
		EB APPROACH		------	------	------	------	------	------	------	------	------	**C[31.9]**	**C[32.7]**	**C[32.6]**
	W. MAIN STREET	WB	L	------	------	------	------	------	------	------	------	------	C[31.7]	C[29.6]	C[33.5]
		WB	T-R	------	------	------	------	------	------	------	------	------	C[32.8]	C[31.9]	C[29.2]
		WB APPROACH		------	------	------	------	------	------	------	------	------	**C[32.2]**	**C[30.5]**	**C[32.4]**
	U.S. ROUTE 9W	NB	L	------	------	------	------	------	------	------	------	------	B[11.1]	B[12.2]	B[11.2]
		NB	T-R	------	------	------	------	------	------	------	------	------	C[27.0]	C[33.6]	C[29.2]
		NB APPROACH		------	------	------	------	------	------	------	------	------	**C[24.9]**	**C[31.3]**	**C[27.3]**
	U.S. ROUTE 9W	SB	L	------	------	------	------	------	------	------	------	------	B[15.5]	B[17.6]	B[16.1]
		SB	T-R	------	------	------	------	------	------	------	------	------	B[14.9]	B[16.1]	B[14.8]
		SB APPROACH		------	------	------	------	------	------	------	------	------	**B[14.9]**	**B[16.2]**	**B[14.9]**
	OVERALL INTERSECTION			------	------	------	------	------	------	------	------	------	**C[24.0]**	**C[27.3]**	**C[25.3]**
4	U.S. ROUTE 9W & LOWLAND HILL ROAD														
	UNSIGNALIZED														
	LOWLAND HILL ROAD	WB	R	B[11.6]	C[15.6]	C[15.4]	C[15.2]	B[11.7]	C[15.9]	C[15.8]	C[15.5]	B[12.2]	C[17.1]	C[16.9]	C[16.5]
5	U.S. ROUTE 9W & TOMKINS AVENUE														
	UNSIGNALIZED														
	U.S. ROUTE 9W	SB	L-T	A[8.1]	A[8.5]	A[8.5]	A[8.3]	A[8.1]	A[8.6]	A[8.6]	A[8.4]	A[8.2]	A[8.8]	A[8.8]	A[8.6]
	TOMKINS AVENUE	WB	L-R	C[17.7]	C[18.1]	C[18.9]	C[16.9]	C[19.0]	C[19.5]	C[20.4]	C[17.4]	C[22.3]	D[25.5]	D[26.2]	C[21.5]
6	TOMKINS AVENUE & FARLEY DRIVE/WOOD AVENUE														
	UNSIGNALIZED														
	TOMKINS AVENUE	EB	L-T-R	A[7.7]	A[7.7]	A[7.6]	A[7.5]	A[7.7]	A[7.7]	A[7.6]	A[7.5]	A[8.2]	A[8.4]	A[8.3]	A[8.2]
	TOMKINS AVENUE	WB	L-T-R	A[7.7]	A[7.9]	A[7.6]	A[7.4]	A[7.7]	A[7.9]	A[7.6]	A[7.4]	A[8.5]	A[8.7]	A[8.4]	A[8.2]
	WOOD AVENUE	NB	L-T-R	A[8.1]	A[7.7]	A[7.5]	A[7.2]	A[8.2]	A[7.7]	A[7.6]	A[7.3]	A[8.3]	A[8.0]	A[7.8]	A[7.4]
	FARLEY DRIVE	SB	L-T-R	A[7.1]	A[7.6]	A[7.1]	A[7.1]	A[7.1]	A[7.7]	A[7.2]	A[7.1]	A[7.5]	A[8.1]	A[7.6]	A[7.6]
	OVERALL INTERSECTION			**A[7.6]**	**A[7.8]**	**A[7.5]**	**A[7.4]**	**A[7.6]**	**A[7.8]**	**A[7.6]**	**A[7.4]**	**A[8.2]**	**A[8.4]**	**A[8.2]**	**A[8.1]**

THE ABOVE REPRESENTS THE LEVELS OF SERVICE AND VEHICLE DELAY IN SECONDS, B [13.2], FOR EACH MOVEMENT, FOR EACH APPROACH AS WELL AS FOR THE OVERALL INTERSECTION FOR THE SIGNALIZED INTERSECTIONS AND THE LEVELS OF SERVICE AND AVERAGE TOTAL DELAY IN SECONDS, B [10.9], FOR THE UNSIGNALIZED INTERSECTIONS.

TABLE NO. 3

ACCIDENT SUMMARY TABLE

NODE/LINK	LOCATION	DATE	TIME	TRAFFIC CONTROL	ACCIDENT CLASS[2]	# OF VEHICLES INJURIES	LIGHT CONDITION	ROAD CONDITION	WEATHER	MANNER OF COLLISION	APPARENT CONTRIBUTING FACTORS
9W85011184	60 Meters South of Lowland HL	01/29/13	5:22 PM	No Passing Zone	N/R	2-0	Dusk	Wet	Rain	Rear End	Pavement Slippery, Driver Inattention
W Main Street	40 Meters East of Jay Street	03/17/13	10:34 PM	None	N/R	2-0	Dark-Road Lighted	Dry	Clear	Left Turn	Unsafe Speed, Failure to Yield Right-of-Way
9W85011185	At Intersection with N Liberty Drive	05/14/13	2:20 PM	Traffic Signal	N/R	2-0	Daylight	Dry	Clear	Overtaking	Passing too Closely
9W85011185	At Intersection with E Main Street	06/09/13	9:17 AM	None	N/R	2-0	Daylight	Dry	Clear	Right Angle	Driver Inattention
Lowland HL	At intersection with S Liberty Drive	07/16/13	5:05 PM	None	N/R	2-0	Daylight	Dry	Clear	Right Angle	Failure to Yield Right-of-Way
9W85011185	At Intersection with E Main Street	07/23/13	4:00 PM	Traffic Signal	N/R	2-0	Daylight	Dry	Clear	Right Angle	Outside Car Distraction
Hoover Place	At Intersection with Tomkins Avenue	07/29/13	6:50 PM	None	N/R	2-0	Daylight	Dry	Clear	Other	Driver Inattention
9W85011184	At Intersection with W Main Street	08/09/13	4:30 PM	Traffic Signal	N/R	2-0	Daylight	Dry	Cloudy	Rear End	Following too Closely
9W85011185	At Intersection with E Main Street	08/13/13	2:12 PM	Traffic Signal	N/R	2-0	Daylight	Dry	Cloudy	Right Angle	Failure to Yield Right-of-Way
9W85011185	16 Meters South of Smith Street	08/14/13	10:00 AM	None	PDO	2-0	Daylight	Dry	Clear	Right Angle	Backing Unsafely
9W85011184	At Intersection with E Main Street	08/14/13	3:00 PM	None	N/R	2-0	Daylight	Dry	Clear	Rear End	Unknown
9W85011184	At Intersection with W Main Street	09/17/13	9:05 PM	Traffic Signal	I	3-1	Dark-Road Lighted	Dry	Clear	Other	Following too Closely
W Main Street	At Intersection with Jay Street	10/24/13	6:41 PM	None	PDO	1-0	Dark-Road Lighted	Dry	Clear	Other	Alcohol Involvement
Beach Road	At Intersection with E Main Street	10/28/13	2:00 PM	Unknown	PDO	2-0	Unknown	Unknown	Unknown	Unknown	Not Entered
9W85011185	Route 9W	11/02/13	8:05 PM	Traffic Signal	Unknown	2-0	Dark-Road Lighted	Dry	Clear	Rear End	Following too Closely
9W85011185	At Intersection with E Main Street	11/11/13	5:05 PM	No Passing Zone	I	2-1	Dark-Road Lighted	Dry	Clear	Other	Pedestrian's Error/Confusion
9W85011187	Route 9W	11/15/13	4:30 AM	None	PDO & I	1-1	Dark-Road Lighted	Dry	Clear	Other	Animal's Action
9W85011184	Route 9W	12/09/13	10:55 PM	No Passing Zone	PDO & I	1-1	Dark-Road Lighted	Snow/Ice	Cloudy	Other	Pavement Slippery
9W85011184	At Intersection with E Main Street	12/21/13	12:30 AM	None	N/R	1-0	Dark-Road Lighted	Wet	Clear	Unknown	Unknown

TABLE NO. 3

ACCIDENT SUMMARY TABLE

NODE/LINK	LOCATION	DATE	TIME	TRAFFIC CONTROL	ACCIDENT CLASS[2]	# OF VEHICLES INJURIES	LIGHT CONDITION	ROAD CONDITION	WEATHER	MANNER OF COLLISION	APPARENT CONTRIBUTING FACTORS
W Main Street	W Main Street	01/06/14	5:25 PM	None	N/R	2-0	Dark-Road Lighted	Wet	Cloudy	Other	Backing Unsafely
9W85011184	31 Meters South of Lowland HL	02/06/14	11:15 AM	Traffic Signal	I	2-1	Daylight	Dry	Clear	Rear End	Driver Inattention
W Main Street	At Intersection with Jay Street	02/10/14	4:05 PM	Stop Sign	PDO & I	2-2	Daylight	Dry	Clear	Left Turn	Failure to Yield Right-of-Way
9W85011187	At Intersection with Tomkins Avenue	02/14/14	9:25 AM	No Passing Zone	N/R	2-0	Daylight	Snow/Ice	Clear	Rear End	Following too Closely, Pavement Slippery
9W85011185	70 Meters South of Smith Street	03/06/14	3:30 PM	Traffic Signal	PDO	2-0	Daylight	Dry	Clear	Rear End	Driver Inattention
Beach Road	At Intersection with Tomkins Avenue	03/14/14	6:45 AM	No Passing Zone	PDO & I	1-2	Dawn	Dry	Clear	Other	Fell Asleep
9W85011188	30 Meters North of Bayview Drive	03/18/14	11:00 PM	None	PDO	1-0	Dark-Road Unlighted	Snow/Ice	Clear	Other	Not Entered
9W85011185	At Intersection with W Main Street	04/01/14	3:20 PM	Traffic Signal	N/R	2-0	Daylight	Dry	Clear	Rear End	Driver Inattention
9W85011184	31 Meters South of Lowland HL	05/26/14	12:00 PM	Traffic Signal	PDO & I	2-1	Daylight	Dry	Clear	Rear End	Following to Closely
9W85011184	At Intersection with E Main Street	07/18/14	4:03 PM	None	PDO	2-0	Daylight	Dry	Clear	Right Angle	Other (Vehicle)
Tomkins Avenue	15 Meters East of Wood Avenue	08/10/14	9:15 PM	No Passing Zone	N/R	1-0	Dark-Road Lighted	Dry	Clear	Other	Obstruction/Debris
9W85011185	At Intersection with W Main Street	08/13/14	2:35 PM	Traffic Signal	N/R	2-0	Daylight	Dry	Cloudy	Rear End	Driver Inattention
E Main Street	15 Meters East of N Liberty Drive	08/24/14	8:05 PM	Traffic Signal	N/R	2-0	Dusk	Dry	Cloudy	Left Turn	Turning Improper
E Main Street	30 Meters East of N Liberty Drive	08/31/14	12:30 PM	Traffic Signal	PDO & I	2-1	Daylight	Dry	Clear	Rear End	Driver Inattention
9W85011187	At Intersection with 10 Eyck Street	09/19/14	6:51 PM	None	N/R	2-0	Daylight	Dry	Clear	Rear End	Driver Inattention
9W85011188	At Intersection with Bayview Drive	09/27/14	2:28 AM	No Passing Zone	PDO & I	1-2	Dark-Road Lighted	Dry	Clear	Other	Alcohol Involvement, Unsafe Speed
9W85011184	1 Meter South of E Main Street	09/30/14	2:45 PM	No Passing Zone	PDO & I	2-1	Daylight	Dry	Cloudy	Rear End	:eaction to Other Uninvolved Vehicle, Following too Closely
W Main Street	At Intersection with Jay Street	10/02/14	5:31 PM	No Passing Zone	N/R	2-0	Dark-Road Lighted	Dry	Cloudy	Overtaking	Passing too Closely
9W85011185	At Intersection with W Main Street	10/04/14	1:35 PM	Traffic Signal	N/R	2-0	Daylight	Wet	Rain	Rear End	Driver Inattention
9W85011184	1 Meter South of E Main Street	10/06/14	7:30 PM	No Passing Zone	N/R	2-0	Dark-Road Lighted	Dry	Clear	Overtaking	Passing or Lane Usage Improperly
9W85011185	At Intersection with Smith Street	10/23/14	4:30 PM	Flashing Light	PDO	3-0	Daylight	Wet	Cloudy	Other	Following too Closely
E Main Street	At Intersection with Beach Road	11/04/14	8:33 AM	Stop Sign	PDO & I	2-1	Daylight	Dry	Clear	Right Angle	Failure to Yield Right-of-Way, View Obstructed/Limited
E Main Street	23 Meters East of N Liberty Drive	11/17/14	5:15 PM	No Passing Zone	N/R	2-0	Dark-Road Lighted	Wet	Rain	Sideswipe(same direction)	Driver Inattention
E Main Street	91 Meters West of Beach Road	12/13/14	4:28 AM	No Passing Zone	F	1-1	Dark-Road Lighted	Dry	Cloudy	Other	Alcohol Involvement, Unsafe Speed
E Main Street	At Intersection with Beach Road	12/30/14	9:03 AM	Stop Sign	I	2-1	Daylight	Dry	Cloudy	Right Angle	View Obstructed/Limited

TABLE NO. 3

ACCIDENT SUMMARY TABLE

NODE/LINK	LOCATION	DATE	TIME	TRAFFIC CONTROL	ACCIDENT CLASS[2]	# OF VEHICLES INJURIES	LIGHT CONDITION	ROAD CONDITION	WEATHER	MANNER OF COLLISION	APPARENT CONTRIBUTING FACTORS
9W85011188	65 Meters North of Bayview Drive	01/12/15	4:20 PM	None	N/R	2-0	Dark-Road Lighted	Wet	Sleet/Hail/Freezing Rai	Right Angle	Failure to Yield Right of Way
E Main Street	76 Meters East of Hudson Avenue	01/19/15	10:20 AM	No Passing Zone	N/R	2-0	Daylight	Dry	Cloudy	Overtaking	Passing too Closely
9W85011187	At Intersection with Tomkins Avenue	01/22/15	7:00 PM	None	N/R	1-0	Dark-Road Lighted	Dry	Clear	Other	Turning Improper
9W85011185	At Intersection with E Main Street	01/30/15	4:55 PM	Traffic Signal	N/R	2-0	Dusk	Wet	Cloudy	Rear End	Driver Inattention
W Main Street	9 Meters East of Jay Street	01/31/15	9:55 PM	None	N/R	2-0	Dark-Road Lighted	Dry	Cloudy	Overtaking	Driver Inattention
9W85011185	At Intersection with N Liberty Drive	02/08/15	11:30 AM	None	N/R	2-0	Daylight	Wet	Cloudy	Right Angle	Backing Unsafely
W Main Street	15 Meters West of E Main Street	03/04/15	3:00 PM	No Passing Zone	N/R	2-0	Daylight	Wet	Cloudy	Rear End	Driver Inattention
9W85011187	At Intersection with 10 Eyck Street	03/12/15	1:38 PM	None	N/R	2-0	Daylight	Dry	Clear	Rear End	Driver Inattention
W Main Street	At Intersection with E Main Street	03/17/15	12:38 PM	Traffic Signal	N/R	1-0	Daylight	Dry	Cloudy	Other	Driver Inexperience
9W85011185	67 Meters South of Smith Street	04/29/15	6:25 PM	Traffic Signal	N/R	2-0	Daylight	Dry	Clear	Rear End	Following too Closely
9W85011184	15 Meters South of W Main Street	05/22/15	9:00 PM	None	N/R	2-0	Dark-Road Lighted	Dry	Cloudy	Overtaking	Failure to Yield Right of Way
E Main Street	At Intersection with Lee Avenue	06/04/15	1:30 PM	None	N/R	2-0	Daylight	Dry	Clear	Other	Backing Unsafely
9W85011188	114 Meters North of Bayview Drive	06/18/15	12:35 PM	None	N/R	2-0	Daylight	Dry	Cloudy	Right Angle	Backing Unsafely
9W85011187	At Intersection with Tomkins Avenue	07/06/15	1:05 PM	Stop Sign	I	2-1	Daylight	Dry	Cloudy	Other	View Obstructed/Limited
9W85011187	At Intersection with N Liberty Drive	07/21/15	9:20 AM	Stop Sign	PDO	2-0	Daylight	Dry	Cloudy	Head On	Turning Improper
9W85011185	30 Meters North of E Main Street	07/24/15	4:30 PM	Traffic Signal	N/R	3-0	Daylight	Dry	Clear	Other	Driver Inattention
9W85011185	At Intersection with N Liberty Drive	07/30/15	4:45 PM	Traffic Signal	I	2-1	Daylight	Wet	Rain	Rear End	Pavement Slippery
Beach Road	122 Meters North of E Main Street	08/02/15	5:00 AM	None	PDO	1-0	Dark-Road Unlighted	Dry	Clear	Other	Unsafe Speed
9W85011187	At Intersection with Teneyck Street	09/21/15	8:02 AM	None	PDO	2-0	Daylight	Dry	Clear	Right Angle	Unknown
9W85011187	At Intersection with Teneyck Street	09/29/15	5:40 PM	No Passing Zone	I	1-1	Daylight	Dry	Cloudy	Other	Reaction to Other Uninvolved Vehicle
9W85011188	72 Meters North of Bayview Drive	09/30/15	3:00 PM	No Passing Zone	N/R	2-0	Daylight	Wet	Cloudy	Right Angle	Driver Inattention
9W85011185	At Intersection with E Main Street	11/02/15	5:55 PM	No Passing Zone	N/R	2-0	Dark-Road Lighted	Dry	Clear	Rear End	Backing Unsafely
9W85011188	30 Meters North of Bayview Drive	11/11/15	1:14 PM	None	N/R	1-0	Daylight	Dry	Clear	Other	Oversized Vehicle
9W85011187	At Intersection with N Liberty Drive	12/16/15	8:25 AM	Stop Sign	N/R	2-0	Daylight	Dry	Clear	Left Turn	Turning Improper

TABLE NO. 3

ACCIDENT SUMMARY TABLE

NODE/LINK	LOCATION	DATE	TIME	TRAFFIC CONTROL	ACCIDENT CLASS[2]	# OF VEHICLES INJURIES	LIGHT CONDITION	ROAD CONDITION	WEATHER	MANNER OF COLLISION	APPARENT CONTRIBUTING FACTORS
9W85011184	At Intersection with E Main Street	12/20/15	11:47 AM	No Passing Zone	I	2-2	Daylight	Dry	Clear	Right Angle	View Obstructed/Limited
9W85011184	At Intersection with E Main Street	01/07/16	7:10 AM	Traffic Signal	PDO & I	2-1	Dawn	Dry	Clear	Left Turn	Failure to Yield Right of Way, Turning Improper
Beach Road	30 Meters North of Grassy Point Road	01/09/16	11:45 PM	None	PDO	1-0	Dark-Road Lighted	Dry	Clear	Other	Fell Asleep
9W85011185	At Intersection with E Main Street	01/12/16	3:32 PM	Traffic Signal	N/R	2-0	Daylight	Dry	Clear	Rear End	Following too Closely
9W85011184	45 Meters South of Lowland HL	01/27/16	3:20 PM	Traffic Signal	PDO	2-0	Daylight	Dry	Clear	Rear End	Prescription Medication, Driver Inattention
9W85011184	At Intersection with E Main Street	02/14/16	1:15 AM	None	N/R	2-0	Daylight	Dry	Clear	Overtaking	Passenger Distraction
9W85011189	61 Meters South of Walnut Street	02/26/16	2:00 AM	None	PDO	2-0	Dark-Road Lighted	Dry	Clear	Left Turn	Turning Improper
9W85011184	At Intersection with W Main Street	03/15/16	1:45 PM	Traffic Signal	N/R	2-0	Daylight	Dry	Clear	Rear End	Driver Inattention
9W85011184	14 Meters South of Lowland HL	03/19/16	9:55 AM	None	N/R	2-0	Daylight	Dry	Clear	Other	Driver Inattention
9W85011185	At Intersection with N Liberty Drive	03/20/16	3:48 PM	Unknown	PDO & I	2-1	Unknown	Unknown	Unknown	Rear End	Unknown
9W85011185	At Intersection with E Main Street	04/04/16	8:00 PM	Traffic Signal	PDO & I	2-1	Dark-Road Lighted	Wet	Cloudy	Right Angle	Traffic Control Devices Disregarded
BA Mar Drive	At Intersection with E Main Street	04/24/16	8:24 PM	None	N/R	2-0	Dusk	Dry	Clear	Sideswipe(same direction)	Driver Inattention
9W85011184	At Intersection with E Main Street	05/04/16	9:20 PM	None	N/R	2-0	Dark-Road Lighted	Wet	Cloudy	Rear End	Backing Unsafely
9W85011184	At Intersection with E Main Street	05/09/16	2:18 PM	None	N/R	2-0	Daylight	Dry	Clear	Right Turn	Driver Inattention
9W85011185	83 Meters South of Smith Street	05/29/16	5:20 PM	None	N/R	1-0	Daylight	Dry	Clear	Other	Driver Inattention
9W85011184	At Intersection with E Main Street	06/03/16	7:38 AM	None	N/R	2-0	Daylight	Wet	Rain	Left Turn	Turning Improper
Beach Road	76 Meters North of E Main Street	06/11/16	1:04 AM	No Passing Zone	N/R	1-0	Dark-Road Lighted	Dry	Clear	Other	Unknown
9W85011186	At Intersection with Ridge Street	06/17/16	8:50 PM	None	N/R	2-0	Dusk	Dry	Clear	Rear End	Backing Unsafely, Driver Inattention
E Main Street	44 Meters East of Lee Avenue	07/10/16	12:42 PM	None	N/R	1-0	Daylight	Dry	Clear	Other	Brakes Defective
9W85011188	65 Meters North of Bayview Drive	07/16/16	1:30 PM	None	PDO & I	2-2	Daylight	Dry	Clear	Right Angle	Failure to Yield Right of Way
9W85011185	46 Meters North of W Main Street	08/03/16	3:06 PM	None	N/R	2-0	Daylight	Dry	Clear	Rear End	Driver Inattention
9W85011187	At Intersection with 10 Eyck Street	08/06/16	3:00 PM	No Passing Zone	PDO & I	2-1	Daylight	Dry	Clear	Left Turn	Failure to Yield Right of Way, Turning Improper
9W85011185	At Intersection with E Main Street	08/08/16	11:30 PM	Traffic Signal	N/R	2-0	Dark-Road Lighted	Dry	Clear	Rear End	Passenger Distraction
9W85011185	At Intersection with W Main Street	08/11/16	3:55 PM	Traffic Signal	N/R	2-0	Daylight	Dry	Clear	Rear End	Unknown
9W85011184	31 Meters South of Lowland HL	09/08/16	8:28 PM	None	N/R	2-0	Dark-Road Lighted	Dry	Clear	Left Turn	Turning Improper
9W85011184	At Intersection with Lowland HL	09/19/16	3:35 PM	Traffic Signal	PDO	2-0	Daylight	Dry	Cloudy	Rear End	Driver Inattention
E Main Street	52 Meters East of John Street	09/25/16	3:10 AM	No Passing Zone	PDO & I	1-1	Dark-Road Lighted	Dry	Clear	Other	Animal's Action
9W85011187	At Intersection with Tomkins Avenue	09/27/16	12:10 PM	No Passing Zone	N/R	2-0	Daylight	Dry	Cloudy	Rear End	Driver Inattention
9W85011185	At Intersection with E Main Street	10/03/16	7:38 PM	Traffic Signal	N/R	2-0	Dark-Road Lighted	Dry	Cloudy	Right Angle	Turning Improper
9W85011188	65 Meters North of Bayview Drive	10/14/16	1:05 PM	None	N/R	2-0	Daylight	Dry	Clear	Right Angle	Backing Unsafely
Tomkins Avenue	At Intersection with Wood Avenue	12/01/16	8:00 PM	Stop Sign	N/R	2-0	Dark-Road Lighted	Dry	Clear	Right Angle	View Obstructed/Limited

TABLE NO. 3

ACCIDENT SUMMARY TABLE

NODE/LINK	LOCATION	DATE	TIME	TRAFFIC CONTROL	ACCIDENT CLASS[2]	# OF VEHICLES INJURIES	LIGHT CONDITION	ROAD CONDITION	WEATHER	MANNER OF COLLISION	APPARENT CONTRIBUTING FACTORS
9W85011184	At Intersection with Lowland HL	12/23/16	11:10 AM	None	PDO	2-0	Daylight	Dry	Clear	UNKNOWN	Unknown
9W85011185	At Intersection with N Liberty Drive	12/28/16	1:57 PM	Traffic Signal	N/R	2-0	Daylight	Dry	Cloudy	Rear End	Following too Closely
9W85011184	48 Meters South of Lowland HL	01/05/17	1:25 PM	Traffic Signal	I	2-1	Daylight	Dry	Clear	Rear End	Following too Closely
Tomkins Avenue	15 Meters West of Hoover Place	01/07/17	5:10 PM	No Passing Zone	PDO	2-0	Dark-Road Lighted	Snow/Ice	Snow	Right Angle	Pavement Slippery
9W85011187	At Intersection with Tomkins Avenue	01/10/17	2:20 PM	No Passing Zone	N/R	2-0	Daylight	Dry	Cloudy	Left Turn	Driver Inattention
9W85011186	At Intersection with Rose Street	01/27/17	2:00 AM	None	PDO	1-0	Dark-Road Lighted	Dry	Clear	Other	Unsafe Speed
9W85011185	30 Meters South of Smith Street	02/03/17	10:45 AM	No Passing Zone	I	2-1	Daylight	Dry	Cloudy	Rear End	Brakes Defective
9W85011186	At Intersection with Rose Street	02/23/17	10:02 PM	None	PDO	2-0	Dark-Road Lighted	Dry	UNKNOWN	Rear End	Aggressive Driving/Road Rage
9W85011185	At Intersection with E Main Street	02/25/17	11:12 AM	Traffic Signal	PDO	2-0	Daylight	Dry	Cloudy	Rear End	Driver Inattention
9W85011185	At Intersection with W Main Street	02/27/17	2:25 PM	Traffic Signal	N/R	2-0	Daylight	Dry	Cloudy	Rear End	Following too Closely
9W85011185	70 Meters South of Smith Street	03/08/17	3:02 PM	No Passing Zone	PDO	2-0	Daylight	Dry	Cloudy	Rear End	Driver Inattention
E Main Street	22 Meters East of Lee Avenue	03/16/17	10:30 AM	Stop Sign	N/R	2-0	Daylight	Wet	Clear	Rear End	Backing Unsafely
W Main Street	15 Meters West of N Liberty Drive	03/16/17	1:20 PM	None	N/R	2-0	Daylight	Dry	Clear	Right Angle	Following too Closely
9W85011184	61 Meters South of Lowland HL	03/17/17	9:25 PM	None	PDO	2-0	Dark-Road Lighted	Dry	Clear	Right Angle	View Obstructed/Limited
Beach Road	46 Meters North of E Main Street	04/09/17	3:30 PM	None	PDO	2-0	Daylight	Dry	Clear	Head On	Unsafe Speed
Tomkins Avenue	At Intersection with Depot Place	04/20/17	1:57 PM	None	N/R	1-0	Daylight	Dry	Cloudy	Other	View Obstructed/Limited
9W8011185	At Intersection with E Main Street	05/02/17	8:45 AM	Traffic Signal	I	2-1	Daylight	Wet	Cloudy	Rear End	Following too Closely
9W85011187	At Intersection with Teneyck Street	05/02/17	2:28 PM	No Passing Zone	PDO	2-0	Daylight	Dry	Clear	Rear End	Following too Closely
9W85011184	At Intersction with E Main Street	05/17/17	7:07 PM	Traffic Signal	PDO	2-0	Dusk	Dry	Clear	Overtaking	Failure to Yield Right of Way
9W85011185	At Intersection with W Main Street	06/16/17	6:20 AM	Traffic Signal	N/R	2-0	Daylight	Dry	Cloudy	Left Turn	Driver Inattention
9W85011185	59 Meters North of E Main Street	06/22/17	9:20 AM	Traffic Signal	N/R	2-0	Daylight	Dry	Clear	Rear End	Following too Closely
9W85011184	15 Meters North of Lowland HL	07/13/17	2:33 PM	None	PDO	2-0	Daylight	Dry	Clear	Right Turn	Failure to Yield Right of Way
9W85011184	At Intersection with E Main Street	08/01/17	8:58 AM	No Passing Zone	PDO	2-0	Daylight	Dry	Clear	Right Turn	Driver Inattention
E Main Street	21 Meters East of Wood Ave	08/05/17	6:41 PM	None	N/R	2-0	Daylight	Dry	Clear	Overtaking	Alcohol Involvement
9W85011184	At Intersection with Lowland HL	08/06/17	11:22 AM	None	PDO	2-0	Daylight	Dry	Clear	Right Angle	Driverless/Runaway Vehicle
9W85011184	61 Meters South of Lowland HL	08/16/17	3:49 PM	Other	F	2-1	Daylight	Dry	Clear	Sideswipe(opposite directior	Traffic Control Devices Disregarded
9W85011187	At Intersection with Tomkins Avenue	08/19/17	11:07 PM	No Passing Zone	PDO	2-0	Dark-Road Lighted	Dry	Clear	Sideswipe(opposite directior	Failure to Keep Right
9W85011186	At Intersection with Ridge Street	08/22/17	4:05 PM	No Passing Zone	N/R	2-0	Daylight	Dry	Clear	Overtaking	Passing or Lane Usage Improperly
9W85011184	At Intersection with E Main Street	08/23/17	1:35 PM	Traffic Signal	N/R	2-0	Daylight	Dry	Clear	Overtaking	Failure to Yield Right of Way
9W85011187	At Intersection with Teneyck Street	08/25/17	10:35 AM	Stop Sign	PDO	2-0	Daylight	Dry	Clear	Rear End	Driver Inattention
9W85011184	1 Meter South of E Main Street	09/09/17	12:22 PM	None	N/R	2-0	Daylight	Dry	Clear	Right Angle	Backing Unsafely
W Main Street	40 Meters East of Jay Street	09/17/17	3:55 PM	None	N/R	2-0	Daylight	Wet	Clear	Head On	Glare
9W85011186	At Intersection with Ridge Street	10/20/17	4:58 PM	None	N/R	2-0	Daylight	Dry	Clear	Other	Tire Failure/Inadequate
9W85011185	At Intersection with E Main Street	10/23/17	7:49 PM	Traffic Signal	PDO	2-0	Dark-Road Lighted	Dry	Cloudy	Rear End	Driver Inattention
9W85011187	12 Meters North of 10 Eyck Street	10/24/17	10:50 AM	No Passing Zone	PDO & I	1-1	Daylight	Wet	Rain	Other	Pavement Slippery
E Main Street	61 Meters West of Hudson Avenue	11/15/17	4:00 PM	No Passing Zone	N/R	1-0	Daylight	Dry	Clear	Other	Animal's Action
9W85011185	15 Meters North of E Main Street	11/16/17	6:26 PM	Traffic Signal	I	2-2	Dark-Road Lighted	Dry	Clear	Rear End	Driver Inattention
9W85011184	At Intersection with E Main Street	12/24/17	3:25 PM	Traffic Signal	I	2-2	Daylight	Dry	Clear	Rear End	Following too Closely

NOTES:

1) ACCIDENT DATA OBTAINED FROM THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) RECORDS ACCESS DEPARTMENT FOR THE TIME PERIOD BETWEEN JANUARY 2013 THROUGH DECEMBER 2017.

2) ACCIDENT CLASS: PDO = PROPERTY DAMAGE ONLY, I = INJURY, F = FATALITY, UNKOWN = NON-REPORTABLE

TABLE NO. 4

ACCIDENT SUMMARY TABLE

NODE/LINK	LOCATION	DATE	TIME	TRAFFIC CONTROL	ACCIDENT CLASS[2]	# OF VEHICLES INJURIES	LIGHT CONDITION	ROAD CONDITION	WEATHER	MANNER OF COLLISION	APPARENT CONTRIBUTING FACTORS
Beach Road	At Intersection with Hudson Drive	04/09/09	10:24 PM	Stop Sign	PDO	1-0	Dark-Road Lighted	Dry	Clear	Hit Tree	Alcohol Involvement, Traffic Control Disregarded
Tomkins Avenue	At Driveway (200' Feet West of Depot Place)	01/28/10	12:35 PM	None	PDO	2-0	Daylight	Wet	Cloudy	Right Angle	Backing Unsafely
Tomkins Avenue	At Farley Drive	07/24/10	7:30 PM	Stop Sign	PDO	2-0	Daylight	Dry	Cloudy	Right Angle	Failure to Yield Right-of-Way
Tomkins Avenue	At Farley Drive	01/17/11	10:35 AM	Stop Sign	PDO	2-0	Daylight	Dry	Clear	Right Angle	Failure to Yield Right-of-Way
Tomkins Avenue	At 52 Tompkins Avenue (Driveway)	08/22/11	11:30 PM	No Passing Zone	PDO	2-0	Dark-Road Lighted	Dry	Clear	Hit Parked Car	Backing Unsafely
Tomkins Avenue	At 5 Tompkins Avenue	11/22/11	2:10 PM	No Passing Zone	PDO	1-0	Daylight	Wet	Rain	Animal Action	Other Fixed Object (Mailbox)

NOTES:

1) ACCIDENT DATA OBTAINED FROM THE TOWN OF STONY POINT/STOPNY POINT POLICE DEPARTMENT FOR THE YEAR 2009 THROUGH 2011.

2) ACCIDENT CLASS: PDO = PROPERTY DAMAGE ONLY, I = INJURY, F = FATALITY, UNKOWN = NON-REPORTABLE

EAGLE BAY

APPENDIX C

LEVEL OF SERVICE STANDARDS

LEVEL OF SERVICE STANDARDS

LEVEL OF SERVICE FOR SIGNALIZED INTERSECTIONS

Level of Service (LOS) can be characterized for the entire intersection, each intersection approach, and each lane group. Control delay alone is used to characterize LOS for the entire intersection or an approach. Control delay and volume-to-capacity (v/c) ratio are used to characterize LOS for a lane group. Delay quantifies the increase in travel time due to traffic signal control. It is also a measure of driver discomfort and fuel consumption. The volume-to-capacity ratio quantifies the degree to which a phase's capacity is utilized by a lane group.

LOS A describes operations with a control delay of 10 s/veh or less and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is exceptionally favorable or the cycle length is very short. If it is due to favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.

LOS B describes operations with control delay between 10 and 20 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A.

LOS C describes operations with control delay between 20 and 35 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when progression is favorable or the cycle length is moderate.

LOS D describes operations with control delay between 35 and 55 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high and either progression is ineffective or the cycle length is long.

LOS E describes operations with control delay between 55 and 80 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long.

LOS F describes operations with control delay exceeding 80 s/veh or a volume-to-capacity ratio greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long.

A lane group can incur a delay less than 80 s/veh when the volume-to-capacity ratio exceeds 1.0. This condition typically occurs when the cycle length is short, the signal progression is favorable, or both. As a result, both the delay and volume-to-capacity ratio are considered when lane group LOS is established. A ratio of 1.0 or more indicates that cycle capacity is fully utilized and represents failure from a capacity perspective (just as delay in excess of 80 s/veh represents failure from a delay perspective).

The Level of Service Criteria for signalized intersections are given in Exhibit 19-8 from the *Highway Capacity Manual, 6th Edition* published by the Transportation Research Board.

Exhibit 19-8

	LOS by Volume-to-Capacity Ratio	
Control Delay (s/veh)	**v/c ≤1.0**	**v/c >1.0**
≤10	A	F
>10-20	B	F
>20-35	C	F
>35-55	D	F
>55-80	E	F
>80	F	F

For approach-based and intersection wide assessments, LOS is defined solely by control delay.

LEVEL OF SERVICE CRITERIA
FOR TWO-WAY STOP-CONTROLLED (TWSC) UNSIGNALIZED INTERSECTIONS

Level of Service (LOS) for a two-way stop-controlled (TWSC) intersection 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. LOS is not defined for the intersection as a whole or for major-street approaches.

The Level of Service Criteria for TWSC unsignalized intersections are given in Exhibit 20-2 from the *Highway Capacity Manual, 6th Edition* published by the Transportation Research Board.

Exhibit 20-2

	LOS by Volume-to-Capacity Ratio	
Control Delay (s/veh)	**v/c ≤1.0**	**v/c >1.0**
0-10	A	F
>10-15	B	F
>15-25	C	F
>25-35	D	F
>35-50	E	F
>50	F	F

The LOS criteria apply to each lane on a given approach and to each approach on the minor street.
LOS is not calculated for major-street approaches or for the intersection as a whole.

As Exhibit 20-2 notes, LOS F is assigned to the movement if the volume-to-capacity ratio for the movement exceeds 1.0, regardless of the control delay.

The Level of Service Criteria for unsignalized intersections are somewhat different from the criteria for signalized intersections.

LEVEL OF SERVICE CRITERIA

FOR ALL-WAY STOP-CONTROLLED (AWSC) UNSIGNALIZED INTERSECTIONS

The Levels of Service (LOS) for all-way stop-controlled (AWSC) intersections are given in Exhibit 21-8. As the exhibit notes, LOS F is assigned if the volume-to-capacity (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.

The Level of Service Criteria for AWSC unsignalized intersections are given in Exhibit 21-8 from the *Highway Capacity Manual, 6th Edition* published by the Transportation Research Board.

Exhibit 21-8

	LOS by Volume-to-Capacity Ratio	
Control Delay (s/veh)	**v/c ≤1.0**	**v/c >1.0**
0-10	A	F
>10-15	B	F
>15-25	C	F
>25-35	D	F
>35-50	E	F
>50	F	F

For approaches and intersection wide assessment, LOS is defined solely by control delay.

EAGLE BAY

APPENDIX D

CAPACITY ANALYSIS

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	12	43	20	7	6	11
Future Volume (vph)	12	43	20	7	6	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	12	12	12	11	12
Grade (%)		-3%	0%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.966		0.912	
Flt Protected		0.990			0.983	
Satd. Flow (prot)	0	1809	1457	0	1400	0
Flt Permitted		0.990			0.983	
Satd. Flow (perm)	0	1809	1457	0	1400	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		639	571		286	
Travel Time (s)		14.5	13.0		6.5	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	0%	7%	30%	14%	17%	18%
Adj. Flow (vph)	14	52	24	8	7	13
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	66	32	0	20	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		11	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.12	0.98	1.00	1.00	1.04	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	12	43	20	7	6	11
Future Vol, veh/h	12	43	20	7	6	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, %	-	-3	0	-	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	0	7	30	14	17	18
Mvmt Flow	14	52	24	8	7	13

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	32	0	-	0	108	28
Stage 1	-	-	-	-	28	-
Stage 2	-	-	-	-	80	-
Critical Hdwy	4.1	-	-	-	6.57	6.38
Critical Hdwy Stg 1	-	-	-	-	5.57	-
Critical Hdwy Stg 2	-	-	-	-	5.57	-
Follow-up Hdwy	2.2	-	-	-	3.653	3.462
Pot Cap-1 Maneuver	1593	-	-	-	854	1003
Stage 1	-	-	-	-	957	-
Stage 2	-	-	-	-	907	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1593	-	-	-	846	1003
Mov Cap-2 Maneuver	-	-	-	-	846	-
Stage 1	-	-	-	-	948	-
Stage 2	-	-	-	-	907	-

Approach	EB	WB	SB
HCM Control Delay, s	1.6	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1593	-	-	-	941
HCM Lane V/C Ratio	0.009	-	-	-	0.022
HCM Control Delay (s)	7.3	0	-	-	8.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	76	8	1	32	28	17	0	5	51	0	7
Future Volume (vph)	6	76	8	1	32	28	17	0	5	51	0	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	12	12	12	12	11
Grade (%)		-6%			1%			3%			3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.988			0.938			0.970			0.983	
Flt Protected		0.996			0.999			0.963			0.958	
Satd. Flow (prot)	0	1697	0	0	1429	0	0	1670	0	0	1647	0
Flt Permitted		0.996			0.999			0.963			0.958	
Satd. Flow (perm)	0	1697	0	0	1429	0	0	1670	0	0	1647	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		504			567			216			341	
Travel Time (s)		11.5			12.9			4.9			7.8	
Confl. Peds. (#/hr)				11		11			11	11		
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	33%	12%	12%	0%	22%	18%	6%	0%	0%	6%	0%	14%
Adj. Flow (vph)	8	95	10	1	40	35	21	0	6	64	0	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	113	0	0	76	0	0	27	0	0	73	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.96	0.96	0.96	1.01	1.05	1.01	1.02	1.02	1.02	1.02	1.02	1.07
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	76	8	1	32	28	17	0	5	51	0	7
Future Vol, veh/h	6	76	8	1	32	28	17	0	5	51	0	7
Conflicting Peds, #/hr	0	0	0	11	0	11	0	0	11	11	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-6	-	-	1	-	-	3	-	-	3	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	33	12	12	0	22	18	6	0	0	6	0	14
Mvmt Flow	8	95	10	1	40	35	21	0	6	64	0	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	86	0	0	116	0	0	187	215	122	201	203	69
Stage 1	-	-	-	-	-	-	127	127	-	71	71	-
Stage 2	-	-	-	-	-	-	60	88	-	130	132	-
Critical Hdwy	4.43	-	-	4.1	-	-	7.76	7.1	6.5	7.76	7.1	6.64
Critical Hdwy Stg 1	-	-	-	-	-	-	6.76	6.1	-	6.76	6.1	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.76	6.1	-	6.76	6.1	-
Follow-up Hdwy	2.497	-	-	2.2	-	-	3.554	4	3.3	3.554	4	3.426
Pot Cap-1 Maneuver	1336	-	-	1485	-	-	741	662	925	724	674	956
Stage 1	-	-	-	-	-	-	849	778	-	918	830	-
Stage 2	-	-	-	-	-	-	932	814	-	846	774	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1322	-	-	1469	-	-	722	644	907	701	656	946
Mov Cap-2 Maneuver	-	-	-	-	-	-	722	644	-	701	656	-
Stage 1	-	-	-	-	-	-	835	766	-	903	821	-
Stage 2	-	-	-	-	-	-	922	805	-	827	762	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.1	9.9	10
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	757	1322	-	-	1469	-	-	797
HCM Lane V/C Ratio	0.036	0.006	-	-	0.001	-	-	0.091
HCM Control Delay (s)	9.9	7.7	0	-	7.5	0	-	10
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.3

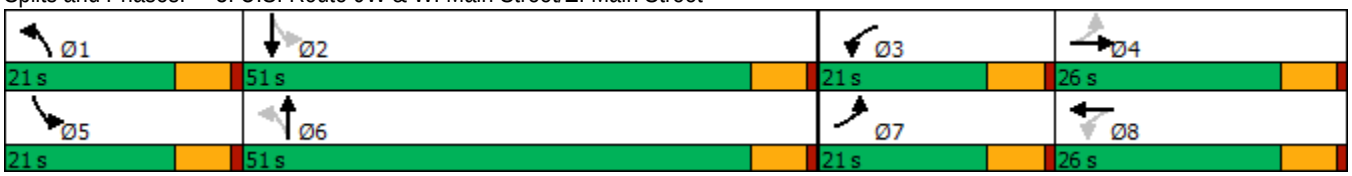
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	29	22	67	77	34	22	39	303	64	10	438	35
Future Volume (vph)	29	22	67	77	34	22	39	303	64	10	438	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	10	12	11	11	12	12	12	12	12	12	12
Grade (%)		-2%			2%			4%			-2%	
Storage Length (ft)	50		0	150		0	460		0	110		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	86			86			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.887			0.941			0.974			0.989	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1711	1521	0	1645	1520	0	1608	1573	0	1823	1715	0
Flt Permitted	0.717			0.547			0.306			0.477		
Satd. Flow (perm)	1291	1521	0	947	1520	0	518	1573	0	915	1715	0
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					24			10			4	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		414			1841			131			576	
Travel Time (s)		9.4			41.8			3.0			13.1	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	3%	9%	3%	5%	9%	18%	10%	16%	12%	0%	11%	6%
Adj. Flow (vph)	32	24	74	85	37	24	43	333	70	11	481	38
Shared Lane Traffic (%)												
Lane Group Flow (vph)	32	98	0	85	61	0	43	403	0	11	519	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.03	1.08	0.99	1.06	1.06	1.01	1.03	1.03	1.03	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases	4			8			6			2		
Detector Phase	7	4		3	8		1	6		5	2	
Switch Phase												
Minimum Initial (s)	3.0	5.0		3.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	9.0	11.0		9.0	11.0		9.0	16.0		9.0	16.0	
Total Split (s)	21.0	26.0		21.0	26.0		21.0	51.0		21.0	51.0	
Total Split (%)	17.6%	21.8%		17.6%	21.8%		17.6%	42.9%		17.6%	42.9%	
Maximum Green (s)	15.0	20.0		15.0	20.0		15.0	45.0		15.0	45.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		13.0			13.0			14.0			12.0	
Pedestrian Calls (#/hr)		0			9			2			0	
v/c Ratio	0.10	0.43		0.26	0.18		0.11	0.43		0.02	0.58	
Control Delay	22.7	40.4		23.5	23.1		10.3	15.5		9.9	22.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	22.7	40.4		23.5	23.1		10.3	15.5		9.9	22.4	
Queue Length 50th (ft)	10	42		28	15		9	106		2	208	
Queue Length 95th (ft)	36	112		78	57		28	282		11	397	
Internal Link Dist (ft)		334			1761			51			496	
Turn Bay Length (ft)	50			150			460			110		
Base Capacity (vph)	563	517		517	533		574	1087		754	1168	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.06	0.19		0.16	0.11		0.07	0.37		0.01	0.44	

Intersection Summary

Area Type: Other
Cycle Length: 119
Actuated Cycle Length: 69.9
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 3: U.S. Route 9W & W. Main Street/E. Main Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	22	67	77	34	22	39	303	64	10	438	35
Future Volume (veh/h)	29	22	67	77	34	22	39	303	64	10	438	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1934	1844	1844	1802	1743	1743	1658	1569	1569	1979	1814	1814
Adj Flow Rate, veh/h	32	24	74	85	37	24	43	333	70	11	481	38
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	9	9	5	9	9	10	16	16	0	11	11
Cap, veh/h	350	38	116	313	115	75	242	400	84	318	578	46
Arrive On Green	0.05	0.09	0.09	0.08	0.12	0.12	0.03	0.32	0.32	0.06	0.35	0.35
Sat Flow, veh/h	1842	397	1226	1717	987	640	1579	1257	264	1884	1659	131
Grp Volume(v), veh/h	32	0	98	85	0	61	43	0	403	11	0	519
Grp Sat Flow(s),veh/h/ln	1842	0	1623	1717	0	1628	1579	0	1521	1884	0	1790
Q Serve(g_s), s	0.8	0.0	3.1	2.3	0.0	1.8	1.0	0.0	13.0	0.2	0.0	14.1
Cycle Q Clear(g_c), s	0.8	0.0	3.1	2.3	0.0	1.8	1.0	0.0	13.0	0.2	0.0	14.1
Prop In Lane	1.00		0.76	1.00		0.39	1.00		0.17	1.00		0.07
Lane Grp Cap(c), veh/h	350	0	154	313	0	190	242	0	484	318	0	623
V/C Ratio(X)	0.09	0.00	0.64	0.27	0.00	0.32	0.18	0.00	0.83	0.03	0.00	0.83
Avail Cap(c_a), veh/h	773	0	614	669	0	616	649	0	1295	746	0	1524
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.5	0.0	23.0	19.2	0.0	21.4	13.2	0.0	16.7	12.0	0.0	15.8
Incr Delay (d2), s/veh	0.0	0.0	1.6	0.2	0.0	0.4	0.1	0.0	1.5	0.0	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	1.2	0.8	0.0	0.7	0.3	0.0	4.1	0.1	0.0	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.5	0.0	24.7	19.4	0.0	21.8	13.4	0.0	18.2	12.0	0.0	16.9
LnGrp LOS	B	A	C	B	A	C	B	A	B	B	A	B
Approach Vol, veh/h		130			146			446			530	
Approach Delay, s/veh		23.4			20.4			17.7			16.8	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.4	24.4	10.0	11.0	9.0	22.8	8.9	12.2
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	15.0	45.0	15.0	20.0	15.0	45.0	15.0	20.0
Max Q Clear Time (g_c+I1), s	3.0	16.1	4.3	5.1	2.2	15.0	2.8	3.8
Green Ext Time (p_c), s	0.0	2.3	0.1	0.3	0.0	1.8	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	18.2
HCM 6th LOS	B

Lane Group	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Volume (vph)	403	0	0	582	0	3
Future Volume (vph)	403	0	0	582	0	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	13	13
Grade (%)	4%			-2%	9%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						0.865
Flt Protected						
Satd. Flow (prot)	1619	0	0	1761	0	1590
Flt Permitted						
Satd. Flow (perm)	1619	0	0	1761	0	1590
Link Speed (mph)	30			30	30	
Link Distance (ft)	694			131	271	
Travel Time (s)	15.8			3.0	6.2	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	15%	2%	0%	9%	0%	2%
Adj. Flow (vph)	443	0	0	640	0	3
Shared Lane Traffic (%)						
Lane Group Flow (vph)	443	0	0	640	0	3
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.03	1.03	0.99	0.99	1.02	1.02
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Vol, veh/h	403	0	0	582	0	3
Future Vol, veh/h	403	0	0	582	0	3
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, %	4	-	-	-2	9	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	15	2	0	9	0	2
Mvmt Flow	443	0	0	640	0	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	443
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.12
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	550
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	550
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	NB	SB	NW
HCM Control Delay, s	0	0	11.6
HCM LOS			B

Minor Lane/Major Mvmt	NBT	NBR	NWLn1	SBT
Capacity (veh/h)	-	-	550	-
HCM Lane V/C Ratio	-	-	0.006	-
HCM Control Delay (s)	-	-	11.6	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	72	25	229	43	24	329
Future Volume (vph)	72	25	229	43	24	329
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	13	12	12	13
Grade (%)	3%		-4%			-3%
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.965		0.979			
Flt Protected	0.964					0.997
Satd. Flow (prot)	1563	0	1698	0	0	1804
Flt Permitted	0.964					0.997
Satd. Flow (perm)	1563	0	1698	0	0	1804
Link Speed (mph)	30		30			30
Link Distance (ft)	291		332			435
Travel Time (s)	6.6		7.5			9.9
Confl. Peds. (#/hr)	3	1		3	1	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	7%	24%	18%	2%	12%	10%
Adj. Flow (vph)	80	28	254	48	27	366
Shared Lane Traffic (%)						
Lane Group Flow (vph)	108	0	302	0	0	393
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.02	1.02	0.93	0.97	0.98	0.94
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	72	25	229	43	24	329
Future Vol, veh/h	72	25	229	43	24	329
Conflicting Peds, #/hr	3	1	0	3	1	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, %	3	-	-4	-	-	-3
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	7	24	18	2	12	10
Mvmt Flow	80	28	254	48	27	366

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	704	282	0	0	305	0
Stage 1	281	-	-	-	-	-
Stage 2	423	-	-	-	-	-
Critical Hdwy	7.07	6.74	-	-	4.22	-
Critical Hdwy Stg 1	6.07	-	-	-	-	-
Critical Hdwy Stg 2	6.07	-	-	-	-	-
Follow-up Hdwy	3.563	3.516	-	-	2.308	-
Pot Cap-1 Maneuver	352	691	-	-	1201	-
Stage 1	721	-	-	-	-	-
Stage 2	606	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	340	688	-	-	1198	-
Mov Cap-2 Maneuver	340	-	-	-	-	-
Stage 1	719	-	-	-	-	-
Stage 2	587	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.7	0	0.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	391	1198	-
HCM Lane V/C Ratio	-	-	0.276	0.022	-
HCM Control Delay (s)	-	-	17.7	8.1	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	1.1	0.1	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	47	5	5	29	1	11	5	3	6	11	20
Future Volume (vph)	6	47	5	5	29	1	11	5	3	6	11	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	10	12	12	12	12	12	13	12	12	10	12
Grade (%)		0%			2%			3%			6%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.988			0.997			0.982			0.928	
Flt Protected		0.995			0.993			0.971			0.992	
Satd. Flow (prot)	0	1608	0	0	1516	0	0	1400	0	0	1465	0
Flt Permitted		0.995			0.993			0.971			0.992	
Satd. Flow (perm)	0	1608	0	0	1516	0	0	1400	0	0	1465	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		848			639			544			490	
Travel Time (s)		19.3			14.5			12.4			11.1	
Confl. Peds. (#/hr)	4		1	1		4	1		1	4		4
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	17%	6%	20%	20%	21%	100%	46%	0%	33%	0%	9%	10%
Adj. Flow (vph)	7	53	6	6	33	1	13	6	3	7	13	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	66	0	0	40	0	0	22	0	0	43	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.09	1.00	1.01	1.01	1.01	1.02	0.98	1.02	1.04	1.14	1.04
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	47	5	5	29	1	11	5	3	6	11	20
Future Vol, veh/h	6	47	5	5	29	1	11	5	3	6	11	20
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	17	6	20	20	21	100	46	0	33	0	9	10
Mvmt Flow	7	53	6	6	33	1	13	6	3	7	13	23
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	7.7	7.7	8.1	7.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	58%	10%	14%	16%
Vol Thru, %	26%	81%	83%	30%
Vol Right, %	16%	9%	3%	54%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	19	58	35	37
LT Vol	11	6	5	6
Through Vol	5	47	29	11
RT Vol	3	5	1	20
Lane Flow Rate	22	66	40	42
Geometry Grp	1	1	1	1
Degree of Util (X)	0.03	0.079	0.049	0.044
Departure Headway (Hd)	4.92	4.298	4.412	3.807
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	721	830	807	928
Service Time	2.993	2.345	2.465	1.882
HCM Lane V/C Ratio	0.031	0.08	0.05	0.045
HCM Control Delay	8.1	7.7	7.7	7.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.3	0.2	0.1

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	6	44	68	3	9	7
Future Volume (vph)	6	44	68	3	9	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	12	12	12	11	12
Grade (%)		-3%	0%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.994		0.943	
Flt Protected		0.994			0.972	
Satd. Flow (prot)	0	1706	1786	0	1683	0
Flt Permitted		0.994			0.972	
Satd. Flow (perm)	0	1706	1786	0	1683	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		639	571		286	
Travel Time (s)		14.5	13.0		6.5	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	0%	14%	6%	0%	0%	0%
Adj. Flow (vph)	7	52	81	4	11	8
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	59	85	0	19	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		11	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.12	0.98	1.00	1.00	1.04	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	44	68	3	9	7
Future Vol, veh/h	6	44	68	3	9	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, %	-	-3	0	-	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	14	6	0	0	0
Mvmt Flow	7	52	81	4	11	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	85	0	-	0	149	83
Stage 1	-	-	-	-	83	-
Stage 2	-	-	-	-	66	-
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	1524	-	-	-	848	982
Stage 1	-	-	-	-	945	-
Stage 2	-	-	-	-	962	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1524	-	-	-	844	982
Mov Cap-2 Maneuver	-	-	-	-	844	-
Stage 1	-	-	-	-	940	-
Stage 2	-	-	-	-	962	-

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	9.1
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1524	-	-	-	899
HCM Lane V/C Ratio	0.005	-	-	-	0.021
HCM Control Delay (s)	7.4	0	-	-	9.1
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	71	12	6	93	69	9	0	2	50	1	5
Future Volume (vph)	11	71	12	6	93	69	9	0	2	50	1	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	12	12	12	12	11
Grade (%)		-6%			1%			3%			3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.983			0.944			0.977			0.987	
Flt Protected		0.994			0.998			0.960			0.957	
Satd. Flow (prot)	0	1537	0	0	1621	0	0	1608	0	0	1572	0
Flt Permitted		0.994			0.998			0.960			0.957	
Satd. Flow (perm)	0	1537	0	0	1621	0	0	1608	0	0	1572	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		504			567			216			341	
Travel Time (s)		11.5			12.9			4.9			7.8	
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	18%	28%	8%	0%	9%	3%	11%	0%	0%	14%	0%	0%
Adj. Flow (vph)	12	80	13	7	104	78	10	0	2	56	1	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	105	0	0	189	0	0	12	0	0	63	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.96	0.96	0.96	1.01	1.05	1.01	1.02	1.02	1.02	1.02	1.02	1.07
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	71	12	6	93	69	9	0	2	50	1	5
Future Vol, veh/h	11	71	12	6	93	69	9	0	2	50	1	5
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-6	-	-	1	-	-	3	-	-	3	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	18	28	8	0	9	3	11	0	0	14	0	0
Mvmt Flow	12	80	13	7	104	78	10	0	2	56	1	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	183	0	0	94	0	0	271	309	89	271	276	145
Stage 1	-	-	-	-	-	-	112	112	-	158	158	-
Stage 2	-	-	-	-	-	-	159	197	-	113	118	-
Critical Hdwy	4.28	-	-	4.1	-	-	7.81	7.1	6.5	7.84	7.1	6.5
Critical Hdwy Stg 1	-	-	-	-	-	-	6.81	6.1	-	6.84	6.1	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.81	6.1	-	6.84	6.1	-
Follow-up Hdwy	2.362	-	-	2.2	-	-	3.599	4	3.3	3.626	4	3.3
Pot Cap-1 Maneuver	1301	-	-	1513	-	-	634	578	967	629	606	897
Stage 1	-	-	-	-	-	-	855	792	-	795	751	-
Stage 2	-	-	-	-	-	-	801	718	-	847	786	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1300	-	-	1512	-	-	621	568	965	619	596	895
Mov Cap-2 Maneuver	-	-	-	-	-	-	621	568	-	619	596	-
Stage 1	-	-	-	-	-	-	846	783	-	786	746	-
Stage 2	-	-	-	-	-	-	790	714	-	836	777	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.9	0.3	10.5	10.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	664	1300	-	-	1512	-	-	679
HCM Lane V/C Ratio	0.019	0.01	-	-	0.004	-	-	0.093
HCM Control Delay (s)	10.5	7.8	0	-	7.4	0	-	10.8
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.3

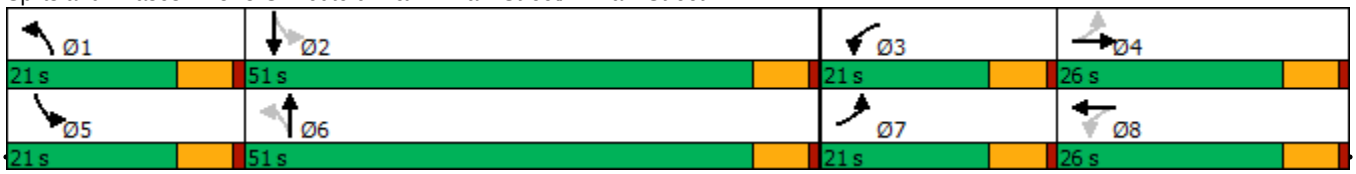
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	35	58	101	61	27	96	472	124	20	384	31
Future Volume (vph)	51	35	58	101	61	27	96	472	124	20	384	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	10	12	11	11	12	12	12	12	12	12	12
Grade (%)		-2%			2%			4%			-2%	
Storage Length (ft)	50		0	150		0	460		0	110		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	86			86			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.907			0.954			0.969			0.989	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1728	1530	0	1694	1676	0	1751	1755	0	1585	1863	0
Flt Permitted	0.695			0.591			0.351			0.275		
Satd. Flow (perm)	1264	1530	0	1054	1676	0	647	1755	0	459	1863	0
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					16			13			4	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		414			1841			131			576	
Travel Time (s)		9.4			41.8			3.0			13.1	
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 (%)	2%	13%	2%	2%	2%	7%	1%	3%	2%	15%	2%	0%
Adj. Flow (vph)	55	38	62	109	66	29	103	508	133	22	413	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	55	100	0	109	95	0	103	641	0	22	446	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.03	1.08	0.99	1.06	1.06	1.01	1.03	1.03	1.03	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases	4			8			6			2		
Detector Phase	7	4		3	8		1	6		5	2	
Switch Phase												
Minimum Initial (s)	3.0	5.0		3.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	9.0	11.0		9.0	11.0		9.0	16.0		9.0	16.0	
Total Split (s)	21.0	26.0		21.0	26.0		21.0	51.0		21.0	51.0	
Total Split (%)	17.6%	21.8%		17.6%	21.8%		17.6%	42.9%		17.6%	42.9%	
Maximum Green (s)	15.0	20.0		15.0	20.0		15.0	45.0		15.0	45.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		13.0			13.0			14.0			12.0	
Pedestrian Calls (#/hr)		0			9			2			0	
v/c Ratio	0.18	0.47		0.33	0.35		0.21	0.63		0.07	0.49	
Control Delay	23.9	43.7		25.3	32.3		11.2	22.1		10.8	22.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	23.9	43.7		25.3	32.3		11.2	22.1		10.8	22.8	
Queue Length 50th (ft)	16	41		33	31		22	200		5	170	
Queue Length 95th (ft)	54	114		94	93		58	#576		18	334	
Internal Link Dist (ft)		334			1761			51			496	
Turn Bay Length (ft)	50			150			460			110		
Base Capacity (vph)	519	467		502	523		634	1145		527	1212	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.11	0.21		0.22	0.18		0.16	0.56		0.04	0.37	

Intersection Summary

Area Type: Other
Cycle Length: 119
Actuated Cycle Length: 74.6
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: U.S. Route 9W & W. Main Street/E. Main Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	35	58	101	61	27	96	472	124	20	384	31
Future Volume (veh/h)	51	35	58	101	61	27	96	472	124	20	384	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1949	1784	1784	1847	1847	1847	1791	1761	1761	1754	1949	1949
Adj Flow Rate, veh/h	55	38	62	109	66	29	103	508	133	22	413	33
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
Percent Heavy Veh, %	2	13	13	2	2	2	1	3	3	15	2	2
Cap, veh/h	307	57	92	297	148	65	413	569	149	234	733	59
Arrive On Green	0.06	0.09	0.09	0.08	0.12	0.12	0.06	0.42	0.42	0.04	0.41	0.41
Sat Flow, veh/h	1856	610	995	1759	1216	534	1706	1346	352	1670	1781	142
Grp Volume(v), veh/h	55	0	100	109	0	95	103	0	641	22	0	446
Grp Sat Flow(s),veh/h/ln	1856	0	1604	1759	0	1751	1706	0	1698	1670	0	1923
Q Serve(g_s), s	1.8	0.0	4.1	3.7	0.0	3.4	2.3	0.0	23.6	0.5	0.0	12.0
Cycle Q Clear(g_c), s	1.8	0.0	4.1	3.7	0.0	3.4	2.3	0.0	23.6	0.5	0.0	12.0
Prop In Lane	1.00		0.62	1.00		0.31	1.00		0.21	1.00		0.07
Lane Grp Cap(c), veh/h	307	0	149	297	0	213	413	0	718	234	0	791
V/C Ratio(X)	0.18	0.00	0.67	0.37	0.00	0.45	0.25	0.00	0.89	0.09	0.00	0.56
Avail Cap(c_a), veh/h	616	0	475	539	0	519	697	0	1132	531	0	1282
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.2	0.0	29.6	24.5	0.0	27.5	11.4	0.0	18.1	14.1	0.0	15.2
Incr Delay (d2), s/veh	0.1	0.0	2.0	0.3	0.0	0.5	0.1	0.0	3.9	0.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	1.6	1.5	0.0	1.4	0.8	0.0	9.0	0.2	0.0	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.3	0.0	31.6	24.8	0.0	28.1	11.5	0.0	22.0	14.2	0.0	15.5
LnGrp LOS	C	A	C	C	A	C	B	A	C	B	A	B
Approach Vol, veh/h		155			204			744			468	
Approach Delay, s/veh		29.4			26.3			20.5			15.4	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.8	33.8	11.7	12.3	9.0	34.5	9.8	14.2
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	15.0	45.0	15.0	20.0	15.0	45.0	15.0	20.0
Max Q Clear Time (g_c+I1), s	4.3	14.0	5.7	6.1	2.5	25.6	3.8	5.4
Green Ext Time (p_c), s	0.1	1.9	0.1	0.3	0.0	2.9	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	20.6
HCM 6th LOS	C

Lane Group	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Volume (vph)	686	3	0	543	0	6
Future Volume (vph)	686	3	0	543	0	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	13	13
Grade (%)	4%			-2%	9%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.999					0.865
Flt Protected						
Satd. Flow (prot)	1806	0	0	1881	0	1590
Flt Permitted						
Satd. Flow (perm)	1806	0	0	1881	0	1590
Link Speed (mph)	30			30	30	
Link Distance (ft)	694			131	271	
Travel Time (s)	15.8			3.0	6.2	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	3%	2%	0%	2%	0%	2%
Adj. Flow (vph)	738	3	0	584	0	6
Shared Lane Traffic (%)						
Lane Group Flow (vph)	741	0	0	584	0	6
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.03	1.03	0.99	0.99	1.02	1.02
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.1

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Vol, veh/h	686	3	0	543	0	6
Future Vol, veh/h	686	3	0	543	0	6
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, %	4	-	-	-2	9	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	3	2	0	2	0	2
Mvmt Flow	738	3	0	584	0	6

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	740
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.12
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	346
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	346
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	NB	SB	NW
HCM Control Delay, s	0	0	15.6
HCM LOS			C

Minor Lane/Major Mvmt	NBT	NBR	NWLn1	SBT
Capacity (veh/h)	-	-	346	-
HCM Lane V/C Ratio	-	-	0.019	-
HCM Control Delay (s)	-	-	15.6	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0.1	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	42	72	416	78	22	325
Future Volume (vph)	42	72	416	78	22	325
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	13	12	12	13
Grade (%)	3%		-4%			-3%
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.915		0.979			
Flt Protected	0.982					0.997
Satd. Flow (prot)	1669	0	1912	0	0	1933
Flt Permitted	0.982					0.997
Satd. Flow (perm)	1669	0	1912	0	0	1933
Link Speed (mph)	30		30			30
Link Distance (ft)	291		332			435
Travel Time (s)	6.6		7.5			9.9
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	0%	3%	0%	0%	3%
Adj. Flow (vph)	45	77	447	84	24	349
Shared Lane Traffic (%)						
Lane Group Flow (vph)	122	0	531	0	0	373
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.02	1.02	0.93	0.97	0.98	0.94
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	42	72	416	78	22	325
Future Vol, veh/h	42	72	416	78	22	325
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, %	3	-	-4	-	-	-3
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	0	3	0	0	3
Mvmt Flow	45	77	447	84	24	349

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	886	489	0	0	531	0
Stage 1	489	-	-	-	-	-
Stage 2	397	-	-	-	-	-
Critical Hdwy	7.02	6.5	-	-	4.1	-
Critical Hdwy Stg 1	6.02	-	-	-	-	-
Critical Hdwy Stg 2	6.02	-	-	-	-	-
Follow-up Hdwy	3.518	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	272	560	-	-	1047	-
Stage 1	568	-	-	-	-	-
Stage 2	636	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	264	560	-	-	1047	-
Mov Cap-2 Maneuver	264	-	-	-	-	-
Stage 1	568	-	-	-	-	-
Stage 2	618	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18.1	0	0.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	396	1047	-
HCM Lane V/C Ratio	-	-	0.31	0.023	-
HCM Control Delay (s)	-	-	18.1	8.5	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	1.3	0.1	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	46	7	6	62	7	10	21	4	4	11	20
Future Volume (vph)	26	46	7	6	62	7	10	21	4	4	11	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	10	12	12	12	12	12	13	12	12	10	12
Grade (%)		0%			2%			3%			6%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.989			0.988			0.985			0.923	
Flt Protected		0.984			0.996			0.985			0.995	
Satd. Flow (prot)	0	1567	0	0	1741	0	0	1727	0	0	1497	0
Flt Permitted		0.984			0.996			0.985			0.995	
Satd. Flow (perm)	0	1567	0	0	1741	0	0	1727	0	0	1497	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		848			639			544			490	
Travel Time (s)		19.3			14.5			12.4			11.1	
Confl. Peds. (#/hr)	1		2	1			2		1			1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	4%	9%	43%	17%	6%	0%	10%	5%	25%	25%	0%	5%
Adj. Flow (vph)	28	49	7	6	66	7	11	22	4	4	12	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	84	0	0	79	0	0	37	0	0	37	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.09	1.00	1.01	1.01	1.01	1.02	0.98	1.02	1.04	1.14	1.04
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	26	46	7	6	62	7	10	21	4	4	11	20
Future Vol, veh/h	26	46	7	6	62	7	10	21	4	4	11	20
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	4	9	43	17	6	0	10	5	25	25	0	5
Mvmt Flow	28	49	7	6	66	7	11	22	4	4	12	21
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	7.7	7.9	7.7	7.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	29%	33%	8%	11%
Vol Thru, %	60%	58%	83%	31%
Vol Right, %	11%	9%	9%	57%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	35	79	75	35
LT Vol	10	26	6	4
Through Vol	21	46	62	11
RT Vol	4	7	7	20
Lane Flow Rate	37	84	80	37
Geometry Grp	1	1	1	1
Degree of Util (X)	0.046	0.097	0.096	0.046
Departure Headway (Hd)	4.473	4.171	4.343	4.419
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	805	850	817	815
Service Time	2.474	2.244	2.413	2.42
HCM Lane V/C Ratio	0.046	0.099	0.098	0.045
HCM Control Delay	7.7	7.7	7.9	7.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.3	0.3	0.1

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	16	39	61	18	10	23
Future Volume (vph)	16	39	61	18	10	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	12	12	12	11	12
Grade (%)		-3%	0%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.969		0.906	
Flt Protected		0.986			0.985	
Satd. Flow (prot)	0	1864	1805	0	1607	0
Flt Permitted		0.986			0.985	
Satd. Flow (perm)	0	1864	1805	0	1607	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		639	571		286	
Travel Time (s)		14.5	13.0		6.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	17	42	66	20	11	25
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	59	86	0	36	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		11	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.12	0.98	1.00	1.00	1.04	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	16	39	61	18	10	23
Future Vol, veh/h	16	39	61	18	10	23
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, %	-	-3	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	42	66	20	11	25

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	86	0	-	0	152	76
Stage 1	-	-	-	-	76	-
Stage 2	-	-	-	-	76	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1510	-	-	-	840	985
Stage 1	-	-	-	-	947	-
Stage 2	-	-	-	-	947	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1510	-	-	-	830	985
Mov Cap-2 Maneuver	-	-	-	-	830	-
Stage 1	-	-	-	-	936	-
Stage 2	-	-	-	-	947	-

Approach	EB	WB	SB
HCM Control Delay, s	2.2	0	9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1510	-	-	-	932
HCM Lane V/C Ratio	0.012	-	-	-	0.038
HCM Control Delay (s)	7.4	0	-	-	9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	99	19	6	87	63	11	3	7	43	1	10
Future Volume (vph)	7	99	19	6	87	63	11	3	7	43	1	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	12	12	12	12	11
Grade (%)		-6%			1%			3%			3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.980			0.945			0.953			0.974	
Flt Protected		0.997			0.998			0.975			0.962	
Satd. Flow (prot)	0	1912	0	0	1714	0	0	1739	0	0	1754	0
Flt Permitted		0.997			0.998			0.975			0.962	
Satd. Flow (perm)	0	1912	0	0	1714	0	0	1739	0	0	1754	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		504			567			216			341	
Travel Time (s)		11.5			12.9			4.9			7.8	
Confl. Peds. (#/hr)			1	1					7	7		
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%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	8	106	20	6	94	68	12	3	8	46	1	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	134	0	0	168	0	0	23	0	0	58	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.96	0.96	0.96	1.01	1.05	1.01	1.02	1.02	1.02	1.02	1.02	1.07
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	99	19	6	87	63	11	3	7	43	1	10
Future Vol, veh/h	7	99	19	6	87	63	11	3	7	43	1	10
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	7	7	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-6	-	-	1	-	-	3	-	-	3	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	8	106	20	6	94	68	12	3	8	46	1	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	162	0	0	127	0	0	274	307	124	285	283	128
Stage 1	-	-	-	-	-	-	133	133	-	140	140	-
Stage 2	-	-	-	-	-	-	141	174	-	145	143	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.7	7.1	6.5	7.7	7.1	6.5
Critical Hdwy Stg 1	-	-	-	-	-	-	6.7	6.1	-	6.7	6.1	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.7	6.1	-	6.7	6.1	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1429	-	-	1472	-	-	652	580	923	640	600	918
Stage 1	-	-	-	-	-	-	856	773	-	848	767	-
Stage 2	-	-	-	-	-	-	847	737	-	842	764	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1429	-	-	1471	-	-	638	573	916	623	593	918
Mov Cap-2 Maneuver	-	-	-	-	-	-	638	573	-	623	593	-
Stage 1	-	-	-	-	-	-	850	768	-	843	763	-
Stage 2	-	-	-	-	-	-	832	733	-	822	759	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0.3	10.3	10.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	697	1429	-	-	1471	-	-	764
HCM Lane V/C Ratio	0.032	0.005	-	-	0.004	-	-	0.076
HCM Control Delay (s)	10.3	7.5	0	-	7.5	0	-	10.1
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.2

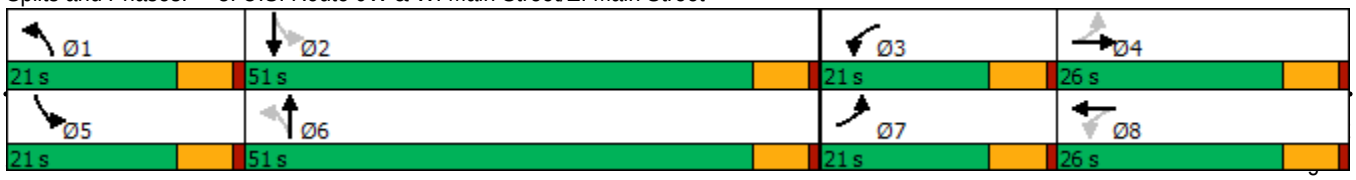
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	63	37	64	113	35	26	81	457	149	13	345	37
Future Volume (vph)	63	37	64	113	35	26	81	457	149	13	345	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	10	12	11	11	12	12	12	12	12	12	12
Grade (%)		-2%			2%			4%			-2%	
Storage Length (ft)	50		0	150		0	460		0	110		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	86			86			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.98				0.98			0.99				
Frt		0.905			0.935			0.963			0.986	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1728	1591	0	1710	1559	0	1769	1738	0	1688	1810	0
Flt Permitted	0.715			0.513			0.363			0.263		
Satd. Flow (perm)	1269	1591	0	924	1559	0	676	1738	0	467	1810	0
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					28			16			5	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		414			1841			131			576	
Travel Time (s)		9.4			41.8			3.0			13.1	
Confl. Peds. (#/hr)	9					9			2	2		
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	0%	3%	1%	3%	12%	0%	3%	1%	8%	5%	0%
Adj. Flow (vph)	67	39	68	120	37	28	86	486	159	14	367	39
Shared Lane Traffic (%)												
Lane Group Flow (vph)	67	107	0	120	65	0	86	645	0	14	406	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.03	1.08	0.99	1.06	1.06	1.01	1.03	1.03	1.03	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases	4			8			6			2		
Detector Phase	7	4		3	8		1	6		5	2	
Switch Phase												
Minimum Initial (s)	3.0	5.0		3.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	9.0	11.0		9.0	11.0		9.0	16.0		9.0	16.0	
Total Split (s)	21.0	26.0		21.0	26.0		21.0	51.0		21.0	51.0	
Total Split (%)	17.6%	21.8%		17.6%	21.8%		17.6%	42.9%		17.6%	42.9%	
Maximum Green (s)	15.0	20.0		15.0	20.0		15.0	45.0		15.0	45.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		13.0			13.0			14.0			12.0	
Pedestrian Calls (#/hr)		0			9			2			0	
v/c Ratio	0.22	0.49		0.38	0.25		0.19	0.71		0.05	0.54	
Control Delay	22.6	42.5		24.7	23.4		11.5	22.3		11.1	23.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	22.6	42.5		24.7	23.4		11.5	22.3		11.1	23.7	
Queue Length 50th (ft)	21	45		38	15		19	207		3	152	
Queue Length 95th (ft)	62	120		100	59		50	#586		13	301	
Internal Link Dist (ft)		334			1761			51			496	
Turn Bay Length (ft)	50			150			460			110		
Base Capacity (vph)	499	450		467	461		598	1113		512	1155	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.13	0.24		0.26	0.14		0.14	0.58		0.03	0.35	

Intersection Summary

Area Type: Other
Cycle Length: 119
Actuated Cycle Length: 75.4
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: U.S. Route 9W & W. Main Street/E. Main Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	37	64	113	35	26	81	457	149	13	345	37
Future Volume (veh/h)	63	37	64	113	35	26	81	457	149	13	345	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.96	0.98		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1949	1979	1979	1862	1832	1832	1806	1761	1761	1859	1904	1904
Adj Flow Rate, veh/h	67	39	68	120	37	28	86	486	159	14	367	39
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	0	0	1	3	3	0	3	3	8	5	5
Cap, veh/h	360	76	132	328	140	106	422	538	176	223	707	75
Arrive On Green	0.06	0.12	0.12	0.09	0.15	0.15	0.05	0.42	0.42	0.04	0.42	0.42
Sat Flow, veh/h	1856	631	1100	1773	954	722	1720	1270	415	1770	1691	180
Grp Volume(v), veh/h	67	0	107	120	0	65	86	0	645	14	0	406
Grp Sat Flow(s),veh/h/ln	1856	0	1730	1773	0	1675	1720	0	1685	1770	0	1871
Q Serve(g_s), s	2.2	0.0	4.2	4.2	0.0	2.5	2.1	0.0	26.0	0.3	0.0	11.8
Cycle Q Clear(g_c), s	2.2	0.0	4.2	4.2	0.0	2.5	2.1	0.0	26.0	0.3	0.0	11.8
Prop In Lane	1.00		0.64	1.00		0.43	1.00		0.25	1.00		0.10
Lane Grp Cap(c), veh/h	360	0	208	328	0	247	422	0	714	223	0	782
V/C Ratio(X)	0.19	0.00	0.52	0.37	0.00	0.26	0.20	0.00	0.90	0.06	0.00	0.52
Avail Cap(c_a), veh/h	633	0	475	541	0	460	696	0	1041	515	0	1155
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.5	0.0	30.1	24.8	0.0	27.6	12.0	0.0	19.6	15.3	0.0	15.8
Incr Delay (d2), s/veh	0.1	0.0	0.7	0.3	0.0	0.2	0.1	0.0	6.2	0.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	1.7	1.7	0.0	1.0	0.7	0.0	10.4	0.1	0.0	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.6	0.0	30.8	25.0	0.0	27.8	12.1	0.0	25.8	15.4	0.0	16.0
LnGrp LOS	C	A	C	C	A	C	B	A	C	B	A	B
Approach Vol, veh/h		174			185			731			420	
Approach Delay, s/veh		28.8			26.0			24.2			15.9	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.4	36.5	12.3	14.7	9.0	36.9	10.3	16.7
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	15.0	45.0	15.0	20.0	15.0	45.0	15.0	20.0
Max Q Clear Time (g_c+I1), s	4.1	13.8	6.2	6.2	2.3	28.0	4.2	4.5
Green Ext Time (p_c), s	0.1	1.7	0.1	0.3	0.0	2.8	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	22.7
HCM 6th LOS	C

Lane Group	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Volume (vph)	678	7	0	522	0	9
Future Volume (vph)	678	7	0	522	0	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	13	13
Grade (%)	4%			-2%	9%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.999					0.865
Flt Protected						
Satd. Flow (prot)	1824	0	0	1845	0	1590
Flt Permitted						
Satd. Flow (perm)	1824	0	0	1845	0	1590
Link Speed (mph)	30			30	30	
Link Distance (ft)	694			131	271	
Travel Time (s)	15.8			3.0	6.2	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	2%	0%	4%	0%	2%
Adj. Flow (vph)	721	7	0	555	0	10
Shared Lane Traffic (%)						
Lane Group Flow (vph)	728	0	0	555	0	10
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.03	1.03	0.99	0.99	1.02	1.02
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.1

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Vol, veh/h	678	7	0	522	0	9
Future Vol, veh/h	678	7	0	522	0	9
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, %	4	-	-	-2	9	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	0	4	0	2
Mvmt Flow	721	7	0	555	0	10

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	725
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.12
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	355
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	355
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	NB	SB	NW
HCM Control Delay, s	0	0	15.4
HCM LOS			C

Minor Lane/Major Mvmt	NBT	NBR	NWLn1	SBT
Capacity (veh/h)	-	-	355	-
HCM Lane V/C Ratio	-	-	0.027	-
HCM Control Delay (s)	-	-	15.4	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0.1	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	60	56	407	78	20	304
Future Volume (vph)	60	56	407	78	20	304
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	13	12	12	13
Grade (%)	3%		-4%			-3%
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.935		0.978			
Flt Protected	0.975					0.997
Satd. Flow (prot)	1647	0	1886	0	0	1875
Flt Permitted	0.975					0.997
Satd. Flow (perm)	1647	0	1886	0	0	1875
Link Speed (mph)	30		30			30
Link Distance (ft)	291		332			435
Travel Time (s)	6.6		7.5			9.9
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	5%	2%	4%	3%	5%	6%
Adj. Flow (vph)	63	58	424	81	21	317
Shared Lane Traffic (%)						
Lane Group Flow (vph)	121	0	505	0	0	338
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.02	1.02	0.93	0.97	0.98	0.94
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	60	56	407	78	20	304
Future Vol, veh/h	60	56	407	78	20	304
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, %	3	-	-4	-	-	-3
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	5	2	4	3	5	6
Mvmt Flow	63	58	424	81	21	317

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	824	465	0	0	505	0
Stage 1	465	-	-	-	-	-
Stage 2	359	-	-	-	-	-
Critical Hdwy	7.05	6.52	-	-	4.15	-
Critical Hdwy Stg 1	6.05	-	-	-	-	-
Critical Hdwy Stg 2	6.05	-	-	-	-	-
Follow-up Hdwy	3.545	3.318	-	-	2.245	-
Pot Cap-1 Maneuver	295	575	-	-	1044	-
Stage 1	579	-	-	-	-	-
Stage 2	659	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	288	575	-	-	1044	-
Mov Cap-2 Maneuver	288	-	-	-	-	-
Stage 1	579	-	-	-	-	-
Stage 2	643	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18.9	0	0.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	379	1044	-
HCM Lane V/C Ratio	-	-	0.319	0.02	-
HCM Control Delay (s)	-	-	18.9	8.5	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	1.3	0.1	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	49	7	7	69	8	14	13	3	3	7	17
Future Volume (vph)	26	49	7	7	69	8	14	13	3	3	7	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	10	12	12	12	12	12	13	12	12	10	12
Grade (%)		0%			2%			3%			6%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.988			0.987			0.988			0.914	
Flt Protected		0.984			0.996			0.976			0.995	
Satd. Flow (prot)	0	1703	0	0	1834	0	0	1865	0	0	1507	0
Flt Permitted		0.984			0.996			0.976			0.995	
Satd. Flow (perm)	0	1703	0	0	1834	0	0	1865	0	0	1507	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		848			639			544			490	
Travel Time (s)		19.3			14.5			12.4			11.1	
Confl. Peds. (#/hr)			3	3			3		3			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	14%	0%	1%	0%	0%	0%	0%	0%	0%	6%
Adj. Flow (vph)	29	54	8	8	77	9	16	14	3	3	8	19
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	91	0	0	94	0	0	33	0	0	30	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.09	1.00	1.01	1.01	1.01	1.02	0.98	1.02	1.04	1.14	1.04
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	7.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	26	49	7	7	69	8	14	13	3	3	7	17
Future Vol, veh/h	26	49	7	7	69	8	14	13	3	3	7	17
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	0	0	14	0	1	0	0	0	0	0	0	6
Mvmt Flow	29	54	8	8	77	9	16	14	3	3	8	19
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	7.6	7.6	7.5	7.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	47%	32%	8%	11%
Vol Thru, %	43%	60%	82%	26%
Vol Right, %	10%	9%	10%	63%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	30	82	84	27
LT Vol	14	26	7	3
Through Vol	13	49	69	7
RT Vol	3	7	8	17
Lane Flow Rate	33	91	93	30
Geometry Grp	1	1	1	1
Degree of Util (X)	0.04	0.104	0.105	0.032
Departure Headway (Hd)	4.275	4.095	4.04	3.887
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	825	870	882	904
Service Time	2.365	2.143	2.09	1.982
HCM Lane V/C Ratio	0.04	0.105	0.105	0.033
HCM Control Delay	7.5	7.6	7.6	7.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.3	0.4	0.1

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	21	46	56	11	4	6
Future Volume (vph)	21	46	56	11	4	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	12	12	12	11	12
Grade (%)		-3%	0%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.978		0.914	
Flt Protected		0.984			0.982	
Satd. Flow (prot)	0	1860	1822	0	1616	0
Flt Permitted		0.984			0.982	
Satd. Flow (perm)	0	1860	1822	0	1616	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		639	571		286	
Travel Time (s)		14.5	13.0		6.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	23	50	61	12	4	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	73	73	0	11	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		11	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.12	0.98	1.00	1.00	1.04	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	21	46	56	11	4	6
Future Vol, veh/h	21	46	56	11	4	6
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, %	-	-3	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	50	61	12	4	7

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	73	0	-	0	163	67
Stage 1	-	-	-	-	67	-
Stage 2	-	-	-	-	96	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1527	-	-	-	828	997
Stage 1	-	-	-	-	956	-
Stage 2	-	-	-	-	928	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1527	-	-	-	816	997
Mov Cap-2 Maneuver	-	-	-	-	816	-
Stage 1	-	-	-	-	942	-
Stage 2	-	-	-	-	928	-

Approach	EB	WB	SB
HCM Control Delay, s	2.3	0	9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1527	-	-	-	916
HCM Lane V/C Ratio	0.015	-	-	-	0.012
HCM Control Delay (s)	7.4	0	-	-	9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	127	14	8	63	49	12	1	2	44	3	15
Future Volume (vph)	9	127	14	8	63	49	12	1	2	44	3	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	12	12	12	12	11
Grade (%)		-6%			1%			3%			3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.988			0.945			0.984			0.968	
Flt Protected		0.997			0.997			0.960			0.965	
Satd. Flow (prot)	0	1928	0	0	1722	0	0	1768	0	0	1748	0
Flt Permitted		0.997			0.997			0.960			0.965	
Satd. Flow (perm)	0	1928	0	0	1722	0	0	1768	0	0	1748	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		504			567			216			341	
Travel Time (s)		11.5			12.9			4.9			7.8	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	10	148	16	9	73	57	14	1	2	51	3	17
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	174	0	0	139	0	0	17	0	0	71	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.96	0.96	0.96	1.01	1.05	1.01	1.02	1.02	1.02	1.02	1.02	1.07
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	127	14	8	63	49	12	1	2	44	3	15
Future Vol, veh/h	9	127	14	8	63	49	12	1	2	44	3	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-6	-	-	1	-	-	3	-	-	3	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	10	148	16	9	73	57	14	1	2	51	3	17

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	130	0	0	164	0	0	297	324	156	298	304	102
Stage 1	-	-	-	-	-	-	176	176	-	120	120	-
Stage 2	-	-	-	-	-	-	121	148	-	178	184	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.7	7.1	6.5	7.7	7.1	6.5
Critical Hdwy Stg 1	-	-	-	-	-	-	6.7	6.1	-	6.7	6.1	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.7	6.1	-	6.7	6.1	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1468	-	-	1427	-	-	627	566	883	626	582	950
Stage 1	-	-	-	-	-	-	807	735	-	872	784	-
Stage 2	-	-	-	-	-	-	870	760	-	804	729	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1468	-	-	1427	-	-	606	558	883	616	573	950
Mov Cap-2 Maneuver	-	-	-	-	-	-	606	558	-	616	573	-
Stage 1	-	-	-	-	-	-	801	729	-	865	779	-
Stage 2	-	-	-	-	-	-	844	755	-	794	723	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0.5	10.9	9.9
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	629	1468	-	-	1427	-	-	809
HCM Lane V/C Ratio	0.028	0.007	-	-	0.007	-	-	0.089
HCM Control Delay (s)	10.9	7.5	0	-	7.5	0	-	9.9
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.3

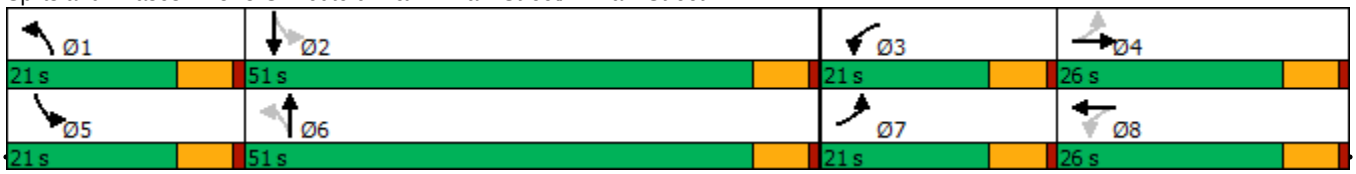
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	38	75	69	103	31	10	76	403	176	25	341	23
Future Volume (vph)	38	75	69	103	31	10	76	403	176	25	341	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	10	12	11	11	12	12	12	12	12	12	12
Grade (%)		-2%			2%			4%			-2%	
Storage Length (ft)	50		0	150		0	460		0	110		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	86			86			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.928			0.963			0.954			0.991	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1762	1662	0	1727	1751	0	1769	1752	0	1823	1867	0
Flt Permitted	0.728			0.504			0.377			0.208		
Satd. Flow (perm)	1350	1662	0	916	1751	0	702	1752	0	399	1867	0
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					11			21			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		414			1841			131			576	
Travel Time (s)		9.4			41.8			3.0			13.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	2%	0%
Adj. Flow (vph)	41	82	75	112	34	11	83	438	191	27	371	25
Shared Lane Traffic (%)												
Lane Group Flow (vph)	41	157	0	112	45	0	83	629	0	27	396	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.03	1.08	0.99	1.06	1.06	1.01	1.03	1.03	1.03	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases	4			8			6			2		
Detector Phase	7	4		3	8		1	6		5	2	
Switch Phase												
Minimum Initial (s)	3.0	5.0		3.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	9.0	11.0		9.0	11.0		9.0	16.0		9.0	16.0	
Total Split (s)	21.0	26.0		21.0	26.0		21.0	51.0		21.0	51.0	
Total Split (%)	17.6%	21.8%		17.6%	21.8%		17.6%	42.9%		17.6%	42.9%	
Maximum Green (s)	15.0	20.0		15.0	20.0		15.0	45.0		15.0	45.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		13.0			13.0			14.0			12.0	
Pedestrian Calls (#/hr)		0			9			2			0	
v/c Ratio	0.12	0.58		0.32	0.11		0.19	0.77		0.09	0.52	
Control Delay	24.1	46.5		25.8	26.9		12.1	29.5		11.8	23.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	24.1	46.5		25.8	26.9		12.1	29.5		11.8	23.8	
Queue Length 50th (ft)	17	89		49	17		21	300		7	162	
Queue Length 95th (ft)	43	167		95	49		52	#589		22	304	
Internal Link Dist (ft)		334			1761			51			496	
Turn Bay Length (ft)	50			150			460			110		
Base Capacity (vph)	533	465		483	527		595	1080		509	1144	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.08	0.34		0.23	0.09		0.14	0.58		0.05	0.35	

Intersection Summary

Area Type: Other
Cycle Length: 119
Actuated Cycle Length: 81.4
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: U.S. Route 9W & W. Main Street/E. Main Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	75	69	103	31	10	76	403	176	25	341	23
Future Volume (veh/h)	38	75	69	103	31	10	76	403	176	25	341	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1979	1979	1979	1876	1876	1876	1806	1776	1776	1979	1949	1949
Adj Flow Rate, veh/h	41	82	75	112	34	11	83	438	191	27	371	25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	2	2	0	2	2
Cap, veh/h	360	111	102	290	205	66	431	489	213	241	747	50
Arrive On Green	0.05	0.12	0.12	0.08	0.15	0.15	0.05	0.42	0.42	0.04	0.41	0.41
Sat Flow, veh/h	1884	952	870	1787	1358	439	1720	1173	511	1884	1805	122
Grp Volume(v), veh/h	41	0	157	112	0	45	83	0	629	27	0	396
Grp Sat Flow(s),veh/h/ln	1884	0	1822	1787	0	1797	1720	0	1684	1884	0	1927
Q Serve(g_s), s	1.3	0.0	5.8	3.8	0.0	1.5	1.9	0.0	24.4	0.6	0.0	10.6
Cycle Q Clear(g_c), s	1.3	0.0	5.8	3.8	0.0	1.5	1.9	0.0	24.4	0.6	0.0	10.6
Prop In Lane	1.00		0.48	1.00		0.24	1.00		0.30	1.00		0.06
Lane Grp Cap(c), veh/h	360	0	213	290	0	271	431	0	702	241	0	798
V/C Ratio(X)	0.11	0.00	0.74	0.39	0.00	0.17	0.19	0.00	0.90	0.11	0.00	0.50
Avail Cap(c_a), veh/h	674	0	520	526	0	513	721	0	1081	564	0	1237
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.0	0.0	29.9	24.3	0.0	25.9	11.6	0.0	19.0	14.8	0.0	15.2
Incr Delay (d2), s/veh	0.1	0.0	1.9	0.3	0.0	0.1	0.1	0.0	4.7	0.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	2.6	1.5	0.0	0.6	0.7	0.0	9.4	0.2	0.0	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.1	0.0	31.8	24.6	0.0	26.0	11.7	0.0	23.7	14.9	0.0	15.3
LnGrp LOS	C	A	C	C	A	C	B	A	C	B	A	B
Approach Vol, veh/h		198			157			712			423	
Approach Delay, s/veh		30.4			25.0			22.3			15.3	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	35.0	11.7	14.2	9.0	35.2	9.3	16.6
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	15.0	45.0	15.0	20.0	15.0	45.0	15.0	20.0
Max Q Clear Time (g_c+I1), s	3.9	12.6	5.8	7.8	2.6	26.4	3.3	3.5
Green Ext Time (p_c), s	0.1	1.7	0.1	0.4	0.0	2.8	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	21.7
HCM 6th LOS	C

Lane Group	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Volume (vph)	647	13	0	513	0	8
Future Volume (vph)	647	13	0	513	0	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	13	13
Grade (%)	4%			-2%	9%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.997					0.865
Flt Protected						
Satd. Flow (prot)	1838	0	0	1900	0	1590
Flt Permitted						
Satd. Flow (perm)	1838	0	0	1900	0	1590
Link Speed (mph)	30			30	30	
Link Distance (ft)	694			131	271	
Travel Time (s)	15.8			3.0	6.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	2%	0%	1%	0%	2%
Adj. Flow (vph)	703	14	0	558	0	9
Shared Lane Traffic (%)						
Lane Group Flow (vph)	717	0	0	558	0	9
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.03	1.03	0.99	0.99	1.02	1.02
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.1

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Vol, veh/h	647	13	0	513	0	8
Future Vol, veh/h	647	13	0	513	0	8
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, %	4	-	-	-2	9	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	2	0	1	0	2
Mvmt Flow	703	14	0	558	0	9

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	710
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.12
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	363
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	363
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	NB	SB	NW
HCM Control Delay, s	0	0	15.2
HCM LOS			C

Minor Lane/Major Mvmt	NBT	NBR	NWLn1	SBT
Capacity (veh/h)	-	-	363	-
HCM Lane V/C Ratio	-	-	0.024	-
HCM Control Delay (s)	-	-	15.2	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0.1	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	49	36	335	67	35	280
Future Volume (vph)	49	36	335	67	35	280
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	13	12	12	13
Grade (%)	3%		-4%			-3%
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.943		0.977			
Flt Protected	0.972					0.994
Satd. Flow (prot)	1715	0	1918	0	0	1940
Flt Permitted	0.972					0.994
Satd. Flow (perm)	1715	0	1918	0	0	1940
Link Speed (mph)	30		30			30
Link Distance (ft)	291		332			435
Travel Time (s)	6.6		7.5			9.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	2%	2%	3%	2%
Adj. Flow (vph)	53	39	364	73	38	304
Shared Lane Traffic (%)						
Lane Group Flow (vph)	92	0	437	0	0	342
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.02	1.02	0.93	0.97	0.98	0.94
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	49	36	335	67	35	280
Future Vol, veh/h	49	36	335	67	35	280
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, %	3	-	-4	-	-	-3
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	2	2	3	2
Mvmt Flow	53	39	364	73	38	304

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	781	401	0	0	437	0
Stage 1	401	-	-	-	-	-
Stage 2	380	-	-	-	-	-
Critical Hdwy	7	6.5	-	-	4.13	-
Critical Hdwy Stg 1	6	-	-	-	-	-
Critical Hdwy Stg 2	6	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.227	-
Pot Cap-1 Maneuver	322	632	-	-	1117	-
Stage 1	637	-	-	-	-	-
Stage 2	653	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	309	632	-	-	1117	-
Mov Cap-2 Maneuver	309	-	-	-	-	-
Stage 1	637	-	-	-	-	-
Stage 2	626	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.9	0	0.9
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	394	1117	-
HCM Lane V/C Ratio	-	-	0.234	0.034	-
HCM Control Delay (s)	-	-	16.9	8.3	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.9	0.1	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	58	8	5	50	5	5	4	4	2	9	16
Future Volume (vph)	19	58	8	5	50	5	5	4	4	2	9	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	10	12	12	12	12	12	13	12	12	10	12
Grade (%)		0%			2%			3%			6%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.987			0.988			0.958			0.919	
Flt Protected		0.989			0.996			0.982			0.997	
Satd. Flow (prot)	0	1708	0	0	1851	0	0	1819	0	0	1576	0
Flt Permitted		0.989			0.996			0.982			0.997	
Satd. Flow (perm)	0	1708	0	0	1851	0	0	1819	0	0	1576	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		848			639			544			490	
Travel Time (s)		19.3			14.5			12.4			11.1	
Confl. Peds. (#/hr)	1					1				1		1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	22	66	9	6	57	6	6	5	5	2	10	18
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	97	0	0	69	0	0	16	0	0	30	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.09	1.00	1.01	1.01	1.01	1.02	0.98	1.02	1.04	1.14	1.04
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	7.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	19	58	8	5	50	5	5	4	4	2	9	16
Future Vol, veh/h	19	58	8	5	50	5	5	4	4	2	9	16
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	0	2	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	22	66	9	6	57	6	6	5	5	2	10	18
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	7.5	7.4	7.2	7.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	38%	22%	8%	7%
Vol Thru, %	31%	68%	83%	33%
Vol Right, %	31%	9%	8%	59%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	13	85	60	27
LT Vol	5	19	5	2
Through Vol	4	58	50	9
RT Vol	4	8	5	16
Lane Flow Rate	15	97	68	31
Geometry Grp	1	1	1	1
Degree of Util (X)	0.017	0.108	0.076	0.033
Departure Headway (Hd)	4.101	4.018	4.018	3.855
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	862	891	888	917
Service Time	2.177	2.051	2.057	1.929
HCM Lane V/C Ratio	0.017	0.109	0.077	0.034
HCM Control Delay	7.2	7.5	7.4	7.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.4	0.2	0.1

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	12	46	21	7	6	11
Future Volume (vph)	12	46	21	7	6	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	12	12	12	11	12
Grade (%)		-3%	0%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.967		0.912	
Flt Protected		0.990			0.983	
Satd. Flow (prot)	0	1808	1457	0	1400	0
Flt Permitted		0.990			0.983	
Satd. Flow (perm)	0	1808	1457	0	1400	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		639	571		286	
Travel Time (s)		14.5	13.0		6.5	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	0%	7%	30%	14%	17%	18%
Adj. Flow (vph)	14	55	25	8	7	13
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	69	33	0	20	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		11	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.12	0.98	1.00	1.00	1.04	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	12	46	21	7	6	11
Future Vol, veh/h	12	46	21	7	6	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, %	-	-3	0	-	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	0	7	30	14	17	18
Mvmt Flow	14	55	25	8	7	13

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	33	0	-	0	112	29
Stage 1	-	-	-	-	29	-
Stage 2	-	-	-	-	83	-
Critical Hdwy	4.1	-	-	-	6.57	6.38
Critical Hdwy Stg 1	-	-	-	-	5.57	-
Critical Hdwy Stg 2	-	-	-	-	5.57	-
Follow-up Hdwy	2.2	-	-	-	3.653	3.462
Pot Cap-1 Maneuver	1592	-	-	-	850	1002
Stage 1	-	-	-	-	956	-
Stage 2	-	-	-	-	904	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1592	-	-	-	842	1002
Mov Cap-2 Maneuver	-	-	-	-	842	-
Stage 1	-	-	-	-	947	-
Stage 2	-	-	-	-	904	-

Approach	EB	WB	SB
HCM Control Delay, s	1.5	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1592	-	-	-	939
HCM Lane V/C Ratio	0.009	-	-	-	0.022
HCM Control Delay (s)	7.3	0	-	-	8.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	113	8	1	45	29	17	0	5	54	0	7
Future Volume (vph)	6	113	8	1	45	29	17	0	5	54	0	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	12	12	12	12	11
Grade (%)		-6%			1%			3%			3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.992			0.948			0.970			0.984	
Flt Protected		0.997			0.999			0.963			0.958	
Satd. Flow (prot)	0	1712	0	0	1440	0	0	1670	0	0	1650	0
Flt Permitted		0.997			0.999			0.963			0.958	
Satd. Flow (perm)	0	1712	0	0	1440	0	0	1670	0	0	1650	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		504			567			216			341	
Travel Time (s)		11.5			12.9			4.9			7.8	
Confl. Peds. (#/hr)				11		11			11	11		
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	33%	12%	12%	0%	22%	18%	6%	0%	0%	6%	0%	14%
Adj. Flow (vph)	8	141	10	1	56	36	21	0	6	68	0	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	159	0	0	93	0	0	27	0	0	77	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.96	0.96	0.96	1.01	1.05	1.01	1.02	1.02	1.02	1.02	1.02	1.07
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	113	8	1	45	29	17	0	5	54	0	7
Future Vol, veh/h	6	113	8	1	45	29	17	0	5	54	0	7
Conflicting Peds, #/hr	0	0	0	11	0	11	0	0	11	11	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-6	-	-	1	-	-	3	-	-	3	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	33	12	12	0	22	18	6	0	0	6	0	14
Mvmt Flow	8	141	10	1	56	36	21	0	6	68	0	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	103	0	0	162	0	0	249	278	168	263	265	85
Stage 1	-	-	-	-	-	-	173	173	-	87	87	-
Stage 2	-	-	-	-	-	-	76	105	-	176	178	-
Critical Hdwy	4.43	-	-	4.1	-	-	7.76	7.1	6.5	7.76	7.1	6.64
Critical Hdwy Stg 1	-	-	-	-	-	-	6.76	6.1	-	6.76	6.1	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.76	6.1	-	6.76	6.1	-
Follow-up Hdwy	2.497	-	-	2.2	-	-	3.554	4	3.3	3.554	4	3.426
Pot Cap-1 Maneuver	1316	-	-	1429	-	-	668	605	869	652	616	935
Stage 1	-	-	-	-	-	-	796	738	-	898	815	-
Stage 2	-	-	-	-	-	-	912	798	-	793	734	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1302	-	-	1414	-	-	651	588	852	630	599	925
Mov Cap-2 Maneuver	-	-	-	-	-	-	651	588	-	630	599	-
Stage 1	-	-	-	-	-	-	782	725	-	883	806	-
Stage 2	-	-	-	-	-	-	902	789	-	774	722	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0.1	10.5	10.7
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	688	1302	-	-	1414	-	-	712
HCM Lane V/C Ratio	0.04	0.006	-	-	0.001	-	-	0.107
HCM Control Delay (s)	10.5	7.8	0	-	7.5	0	-	10.7
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.4

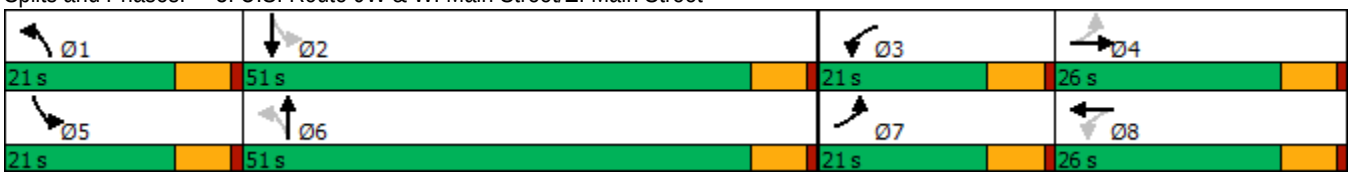
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	35	69	80	39	29	40	311	70	29	449	36
Future Volume (vph)	30	35	69	80	39	29	40	311	70	29	449	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	10	12	11	11	12	12	12	12	12	12	12
Grade (%)		-2%			2%			4%			-2%	
Storage Length (ft)	50		0	150		0	460		0	110		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	86			86			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.900			0.936			0.972			0.989	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1711	1535	0	1645	1508	0	1608	1570	0	1823	1716	0
Flt Permitted	0.708			0.543			0.304			0.417		
Satd. Flow (perm)	1275	1535	0	940	1508	0	515	1570	0	800	1716	0
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					27			11			4	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		414			1841			131			576	
Travel Time (s)		9.4			41.8			3.0			13.1	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	3%	9%	3%	5%	9%	18%	10%	16%	12%	0%	11%	6%
Adj. Flow (vph)	33	38	76	88	43	32	44	342	77	32	493	40
Shared Lane Traffic (%)												
Lane Group Flow (vph)	33	114	0	88	75	0	44	419	0	32	533	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.03	1.08	0.99	1.06	1.06	1.01	1.03	1.03	1.03	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases	4			8			6			2		
Detector Phase	7	4		3	8		1	6		5	2	
Switch Phase												
Minimum Initial (s)	3.0	5.0		3.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	9.0	11.0		9.0	11.0		9.0	16.0		9.0	16.0	
Total Split (s)	21.0	26.0		21.0	26.0		21.0	51.0		21.0	51.0	
Total Split (%)	17.6%	21.8%		17.6%	21.8%		17.6%	42.9%		17.6%	42.9%	
Maximum Green (s)	15.0	20.0		15.0	20.0		15.0	45.0		15.0	45.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		13.0			13.0			14.0			12.0	
Pedestrian Calls (#/hr)		0			9			2			0	
v/c Ratio	0.11	0.47		0.26	0.22		0.12	0.50		0.06	0.59	
Control Delay	23.0	41.6		23.9	24.0		10.9	20.8		10.4	23.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	23.0	41.6		23.9	24.0		10.9	20.8		10.4	23.2	
Queue Length 50th (ft)	11	52		30	20		10	160		7	222	
Queue Length 95th (ft)	37	127		79	68		29	310		23	422	
Internal Link Dist (ft)		334			1761			51			496	
Turn Bay Length (ft)	50			150			460			110		
Base Capacity (vph)	558	505		511	520		565	1047		711	1138	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.06	0.23		0.17	0.14		0.08	0.40		0.05	0.47	

Intersection Summary

Area Type: Other
Cycle Length: 119
Actuated Cycle Length: 72.2
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 3: U.S. Route 9W & W. Main Street/E. Main Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	35	69	80	39	29	40	311	70	29	449	36
Future Volume (veh/h)	30	35	69	80	39	29	40	311	70	29	449	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1934	1844	1844	1802	1743	1743	1658	1569	1569	1979	1814	1814
Adj Flow Rate, veh/h	33	38	76	88	43	32	44	342	77	32	493	40
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	9	9	5	9	9	10	16	16	0	11	11
Cap, veh/h	348	58	115	311	120	89	236	405	91	305	586	48
Arrive On Green	0.05	0.10	0.10	0.08	0.13	0.13	0.03	0.33	0.33	0.05	0.35	0.35
Sat Flow, veh/h	1842	549	1097	1717	928	691	1579	1239	279	1884	1655	134
Grp Volume(v), veh/h	33	0	114	88	0	75	44	0	419	32	0	533
Grp Sat Flow(s),veh/h/ln	1842	0	1646	1717	0	1619	1579	0	1518	1884	0	1789
Q Serve(g_s), s	0.8	0.0	3.7	2.4	0.0	2.3	1.0	0.0	14.1	0.6	0.0	15.1
Cycle Q Clear(g_c), s	0.8	0.0	3.7	2.4	0.0	2.3	1.0	0.0	14.1	0.6	0.0	15.1
Prop In Lane	1.00		0.67	1.00		0.43	1.00		0.18	1.00		0.08
Lane Grp Cap(c), veh/h	348	0	173	311	0	210	236	0	496	305	0	634
V/C Ratio(X)	0.09	0.00	0.66	0.28	0.00	0.36	0.19	0.00	0.84	0.10	0.00	0.84
Avail Cap(c_a), veh/h	752	0	598	646	0	588	623	0	1242	716	0	1464
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.9	0.0	23.7	19.5	0.0	21.9	13.6	0.0	17.2	12.6	0.0	16.3
Incr Delay (d2), s/veh	0.0	0.0	1.6	0.2	0.0	0.4	0.1	0.0	1.5	0.1	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	1.4	0.9	0.0	0.8	0.3	0.0	4.5	0.2	0.0	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.9	0.0	25.3	19.7	0.0	22.2	13.7	0.0	18.8	12.6	0.0	17.5
LnGrp LOS	B	A	C	B	A	C	B	A	B	B	A	B
Approach Vol, veh/h		147			163			463			565	
Approach Delay, s/veh		24.1			20.9			18.3			17.3	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.5	25.5	10.3	11.8	9.0	24.0	8.9	13.1
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	15.0	45.0	15.0	20.0	15.0	45.0	15.0	20.0
Max Q Clear Time (g_c+I1), s	3.0	17.1	4.4	5.7	2.6	16.1	2.8	4.3
Green Ext Time (p_c), s	0.0	2.4	0.1	0.3	0.0	1.8	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	18.8
HCM 6th LOS	B

Lane Group	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Volume (vph)	417	0	0	598	0	3
Future Volume (vph)	417	0	0	598	0	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	13	13
Grade (%)	4%			-2%	9%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						0.865
Flt Protected						
Satd. Flow (prot)	1619	0	0	1761	0	1590
Flt Permitted						
Satd. Flow (perm)	1619	0	0	1761	0	1590
Link Speed (mph)	30			30	30	
Link Distance (ft)	694			131	271	
Travel Time (s)	15.8			3.0	6.2	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	15%	2%	0%	9%	0%	2%
Adj. Flow (vph)	458	0	0	657	0	3
Shared Lane Traffic (%)						
Lane Group Flow (vph)	458	0	0	657	0	3
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.03	1.03	0.99	0.99	1.02	1.02
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Vol, veh/h	417	0	0	598	0	3
Future Vol, veh/h	417	0	0	598	0	3
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, %	4	-	-	-2	9	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	15	2	0	9	0	2
Mvmt Flow	458	0	0	657	0	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	458
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.12
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	538
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	538
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	NWLn1	SBT
Capacity (veh/h)	-	-	538	-
HCM Lane V/C Ratio	-	-	0.006	-
HCM Control Delay (s)	-	-	11.7	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	74	26	241	44	25	356
Future Volume (vph)	74	26	241	44	25	356
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	13	12	12	13
Grade (%)	3%		-4%			-3%
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.965		0.979			
Flt Protected	0.964					0.997
Satd. Flow (prot)	1562	0	1697	0	0	1804
Flt Permitted	0.964					0.997
Satd. Flow (perm)	1562	0	1697	0	0	1804
Link Speed (mph)	30		30			30
Link Distance (ft)	291		332			435
Travel Time (s)	6.6		7.5			9.9
Confl. Peds. (#/hr)	3	1		3	1	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	7%	24%	18%	2%	12%	10%
Adj. Flow (vph)	82	29	268	49	28	396
Shared Lane Traffic (%)						
Lane Group Flow (vph)	111	0	317	0	0	424
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.02	1.02	0.93	0.97	0.98	0.94
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	74	26	241	44	25	356
Future Vol, veh/h	74	26	241	44	25	356
Conflicting Peds, #/hr	3	1	0	3	1	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, %	3	-	-4	-	-	-3
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	7	24	18	2	12	10
Mvmt Flow	82	29	268	49	28	396

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	751	297	0	0	320	0
Stage 1	296	-	-	-	-	-
Stage 2	455	-	-	-	-	-
Critical Hdwy	7.07	6.74	-	-	4.22	-
Critical Hdwy Stg 1	6.07	-	-	-	-	-
Critical Hdwy Stg 2	6.07	-	-	-	-	-
Follow-up Hdwy	3.563	3.516	-	-	2.308	-
Pot Cap-1 Maneuver	328	676	-	-	1186	-
Stage 1	708	-	-	-	-	-
Stage 2	583	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	316	673	-	-	1183	-
Mov Cap-2 Maneuver	316	-	-	-	-	-
Stage 1	706	-	-	-	-	-
Stage 2	564	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19	0	0.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	367	1183	-
HCM Lane V/C Ratio	-	-	0.303	0.023	-
HCM Control Delay (s)	-	-	19	8.1	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	1.3	0.1	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	48	5	5	30	2	11	5	3	8	11	21
Future Volume (vph)	6	48	5	5	30	2	11	5	3	8	11	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	10	12	12	12	12	12	13	12	12	10	12
Grade (%)		0%			2%			3%			6%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.988			0.994			0.982			0.930	
Flt Protected		0.995			0.993			0.971			0.990	
Satd. Flow (prot)	0	1609	0	0	1490	0	0	1400	0	0	1470	0
Flt Permitted		0.995			0.993			0.971			0.990	
Satd. Flow (perm)	0	1609	0	0	1490	0	0	1400	0	0	1470	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		848			639			544			490	
Travel Time (s)		19.3			14.5			12.4			11.1	
Confl. Peds. (#/hr)	4		1	1		4	1		1	4		4
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	17%	6%	20%	20%	21%	100%	46%	0%	33%	0%	9%	10%
Adj. Flow (vph)	7	55	6	6	34	2	13	6	3	9	13	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	68	0	0	42	0	0	22	0	0	46	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.09	1.00	1.01	1.01	1.01	1.02	0.98	1.02	1.04	1.14	1.04
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	48	5	5	30	2	11	5	3	8	11	21
Future Vol, veh/h	6	48	5	5	30	2	11	5	3	8	11	21
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	17	6	20	20	21	100	46	0	33	0	9	10
Mvmt Flow	7	55	6	6	34	2	13	6	3	9	13	24
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	7.7	7.7	8.2	7.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	58%	10%	14%	20%
Vol Thru, %	26%	81%	81%	27%
Vol Right, %	16%	8%	5%	53%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	19	59	37	40
LT Vol	11	6	5	8
Through Vol	5	48	30	11
RT Vol	3	5	2	21
Lane Flow Rate	22	67	42	45
Geometry Grp	1	1	1	1
Degree of Util (X)	0.03	0.08	0.051	0.048
Departure Headway (Hd)	4.928	4.306	4.402	3.83
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	720	827	809	923
Service Time	3.002	2.355	2.457	1.905
HCM Lane V/C Ratio	0.031	0.081	0.052	0.049
HCM Control Delay	8.2	7.7	7.7	7.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.3	0.2	0.2

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	6	46	71	3	9	7
Future Volume (vph)	6	46	71	3	9	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	12	12	12	11	12
Grade (%)		-3%	0%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.994		0.943	
Flt Protected		0.994			0.972	
Satd. Flow (prot)	0	1705	1786	0	1683	0
Flt Permitted		0.994			0.972	
Satd. Flow (perm)	0	1705	1786	0	1683	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		639	571		286	
Travel Time (s)		14.5	13.0		6.5	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	0%	14%	6%	0%	0%	0%
Adj. Flow (vph)	7	55	85	4	11	8
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	62	89	0	19	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		11	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.12	0.98	1.00	1.00	1.04	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	46	71	3	9	7
Future Vol, veh/h	6	46	71	3	9	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, %	-	-3	0	-	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	14	6	0	0	0
Mvmt Flow	7	55	85	4	11	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	89	0	-	0	156	87
Stage 1	-	-	-	-	87	-
Stage 2	-	-	-	-	69	-
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	1519	-	-	-	840	977
Stage 1	-	-	-	-	941	-
Stage 2	-	-	-	-	959	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1519	-	-	-	836	977
Mov Cap-2 Maneuver	-	-	-	-	836	-
Stage 1	-	-	-	-	936	-
Stage 2	-	-	-	-	959	-

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	9.1
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1519	-	-	-	892
HCM Lane V/C Ratio	0.005	-	-	-	0.021
HCM Control Delay (s)	7.4	0	-	-	9.1
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	90	12	6	121	72	9	0	2	52	1	5
Future Volume (vph)	11	90	12	6	121	72	9	0	2	52	1	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	12	12	12	12	11
Grade (%)		-6%			1%			3%			3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.986			0.951			0.977			0.988	
Flt Protected		0.995			0.998			0.960			0.957	
Satd. Flow (prot)	0	1536	0	0	1628	0	0	1608	0	0	1573	0
Flt Permitted		0.995			0.998			0.960			0.957	
Satd. Flow (perm)	0	1536	0	0	1628	0	0	1608	0	0	1573	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		504			567			216			341	
Travel Time (s)		11.5			12.9			4.9			7.8	
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	18%	28%	8%	0%	9%	3%	11%	0%	0%	14%	0%	0%
Adj. Flow (vph)	12	101	13	7	136	81	10	0	2	58	1	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	126	0	0	224	0	0	12	0	0	65	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.96	0.96	0.96	1.01	1.05	1.01	1.02	1.02	1.02	1.02	1.02	1.07
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	90	12	6	121	72	9	0	2	52	1	5
Future Vol, veh/h	11	90	12	6	121	72	9	0	2	52	1	5
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-6	-	-	1	-	-	3	-	-	3	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	18	28	8	0	9	3	11	0	0	14	0	0
Mvmt Flow	12	101	13	7	136	81	10	0	2	58	1	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	218	0	0	115	0	0	325	365	110	326	331	179
Stage 1	-	-	-	-	-	-	133	133	-	192	192	-
Stage 2	-	-	-	-	-	-	192	232	-	134	139	-
Critical Hdwy	4.28	-	-	4.1	-	-	7.81	7.1	6.5	7.84	7.1	6.5
Critical Hdwy Stg 1	-	-	-	-	-	-	6.81	6.1	-	6.84	6.1	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.81	6.1	-	6.84	6.1	-
Follow-up Hdwy	2.362	-	-	2.2	-	-	3.599	4	3.3	3.626	4	3.3
Pot Cap-1 Maneuver	1262	-	-	1487	-	-	579	533	940	573	560	856
Stage 1	-	-	-	-	-	-	831	773	-	758	722	-
Stage 2	-	-	-	-	-	-	765	689	-	823	767	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1261	-	-	1486	-	-	567	524	938	564	550	854
Mov Cap-2 Maneuver	-	-	-	-	-	-	567	524	-	564	550	-
Stage 1	-	-	-	-	-	-	822	764	-	750	718	-
Stage 2	-	-	-	-	-	-	754	685	-	812	759	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	0.2	11	11.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	611	1261	-	-	1486	-	-	617
HCM Lane V/C Ratio	0.02	0.01	-	-	0.005	-	-	0.106
HCM Control Delay (s)	11	7.9	0	-	7.4	0	-	11.5
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.4

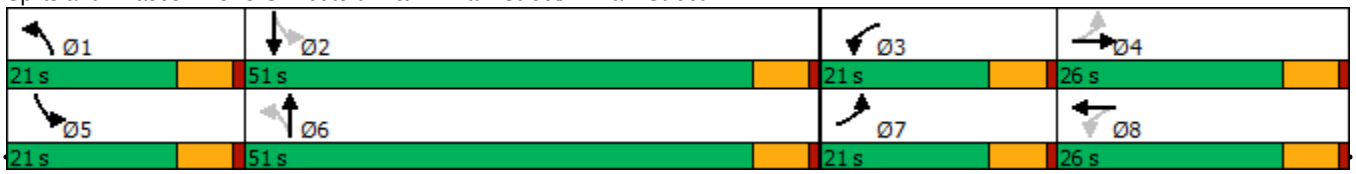
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	52	42	59	107	72	41	98	484	129	29	394	32
Future Volume (vph)	52	42	59	107	72	41	98	484	129	29	394	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	10	12	11	11	12	12	12	12	12	12	12
Grade (%)		-2%			2%			4%			-2%	
Storage Length (ft)	50		0	150		0	460		0	110		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	86			86			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.912			0.945			0.968			0.989	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1728	1533	0	1694	1655	0	1751	1754	0	1585	1863	0
Flt Permitted	0.679			0.476			0.346			0.228		
Satd. Flow (perm)	1235	1533	0	849	1655	0	638	1754	0	380	1863	0
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					21			13			4	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		414			1841			131			576	
Travel Time (s)		9.4			41.8			3.0			13.1	
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 (%)	2%	13%	2%	2%	2%	7%	1%	3%	2%	15%	2%	0%
Adj. Flow (vph)	56	45	63	115	77	44	105	520	139	31	424	34
Shared Lane Traffic (%)												
Lane Group Flow (vph)	56	108	0	115	121	0	105	659	0	31	458	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.03	1.08	0.99	1.06	1.06	1.01	1.03	1.03	1.03	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases	4			8			6			2		
Detector Phase	7	4		3	8		1	6		5	2	
Switch Phase												
Minimum Initial (s)	3.0	5.0		3.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	9.0	11.0		9.0	11.0		9.0	16.0		9.0	16.0	
Total Split (s)	21.0	26.0		21.0	26.0		21.0	51.0		21.0	51.0	
Total Split (%)	17.6%	21.8%		17.6%	21.8%		17.6%	42.9%		17.6%	42.9%	
Maximum Green (s)	15.0	20.0		15.0	20.0		15.0	45.0		15.0	45.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		13.0			13.0			14.0			12.0	
Pedestrian Calls (#/hr)		0			9			2			0	
v/c Ratio	0.20	0.53		0.39	0.45		0.23	0.75		0.11	0.54	
Control Delay	26.3	49.5		28.8	36.3		11.4	27.3		11.1	23.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	26.3	49.5		28.8	36.3		11.4	27.3		11.1	23.2	
Queue Length 50th (ft)	25	63		54	56		25	317		7	190	
Queue Length 95th (ft)	55	123		98	113		60	#620		23	352	
Internal Link Dist (ft)		334			1761			51			496	
Turn Bay Length (ft)	50			150			460			110		
Base Capacity (vph)	463	402		428	452		584	1041		454	1101	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.12	0.27		0.27	0.27		0.18	0.63		0.07	0.42	

Intersection Summary

Area Type: Other
Cycle Length: 119
Actuated Cycle Length: 83.3
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: U.S. Route 9W & W. Main Street/E. Main Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	42	59	107	72	41	98	484	129	29	394	32
Future Volume (veh/h)	52	42	59	107	72	41	98	484	129	29	394	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1949	1784	1784	1847	1847	1847	1791	1761	1761	1754	1949	1949
Adj Flow Rate, veh/h	56	45	63	115	77	44	105	520	139	31	424	34
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
Percent Heavy Veh, %	2	13	13	2	2	2	1	3	3	15	2	2
Cap, veh/h	288	65	91	296	141	81	409	578	154	225	745	60
Arrive On Green	0.06	0.10	0.10	0.09	0.13	0.13	0.06	0.43	0.43	0.04	0.42	0.42
Sat Flow, veh/h	1856	673	942	1759	1103	630	1706	1339	358	1670	1780	143
Grp Volume(v), veh/h	56	0	108	115	0	121	105	0	659	31	0	458
Grp Sat Flow(s),veh/h/ln	1856	0	1614	1759	0	1733	1706	0	1697	1670	0	1923
Q Serve(g_s), s	1.8	0.0	4.5	4.0	0.0	4.6	2.4	0.0	25.3	0.7	0.0	12.7
Cycle Q Clear(g_c), s	1.8	0.0	4.5	4.0	0.0	4.6	2.4	0.0	25.3	0.7	0.0	12.7
Prop In Lane	1.00		0.58	1.00		0.36	1.00		0.21	1.00		0.07
Lane Grp Cap(c), veh/h	288	0	156	296	0	222	409	0	732	225	0	804
V/C Ratio(X)	0.19	0.00	0.69	0.39	0.00	0.54	0.26	0.00	0.90	0.14	0.00	0.57
Avail Cap(c_a), veh/h	583	0	461	520	0	495	679	0	1089	511	0	1235
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.0	0.0	30.6	25.2	0.0	28.6	11.6	0.0	18.5	14.8	0.0	15.6
Incr Delay (d2), s/veh	0.1	0.0	2.0	0.3	0.0	0.8	0.1	0.0	5.4	0.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	1.8	1.6	0.0	1.9	0.8	0.0	9.9	0.2	0.0	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.2	0.0	32.7	25.5	0.0	29.4	11.8	0.0	23.9	14.9	0.0	15.8
LnGrp LOS	C	A	C	C	A	C	B	A	C	B	A	B
Approach Vol, veh/h		164			236			764			489	
Approach Delay, s/veh		30.4			27.5			22.3			15.7	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.9	35.3	12.1	12.8	9.0	36.2	9.9	15.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	15.0	45.0	15.0	20.0	15.0	45.0	15.0	20.0
Max Q Clear Time (g_c+I1), s	4.4	14.7	6.0	6.5	2.7	27.3	3.8	6.6
Green Ext Time (p_c), s	0.1	2.0	0.1	0.3	0.0	2.9	0.0	0.3

Intersection Summary	
HCM 6th Ctrl Delay	21.9
HCM 6th LOS	C

Lane Group	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Volume (vph)	705	3	0	560	0	6
Future Volume (vph)	705	3	0	560	0	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	13	13
Grade (%)	4%			-2%	9%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.999					0.865
Flt Protected						
Satd. Flow (prot)	1806	0	0	1881	0	1590
Flt Permitted						
Satd. Flow (perm)	1806	0	0	1881	0	1590
Link Speed (mph)	30			30	30	
Link Distance (ft)	694			131	271	
Travel Time (s)	15.8			3.0	6.2	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	3%	2%	0%	2%	0%	2%
Adj. Flow (vph)	758	3	0	602	0	6
Shared Lane Traffic (%)						
Lane Group Flow (vph)	761	0	0	602	0	6
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.03	1.03	0.99	0.99	1.02	1.02
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.1

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Vol, veh/h	705	3	0	560	0	6
Future Vol, veh/h	705	3	0	560	0	6
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, %	4	-	-	-2	9	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	3	2	0	2	0	2
Mvmt Flow	758	3	0	602	0	6

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	760
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.12
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	336
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	336
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	NB	SB	NW
HCM Control Delay, s	0	0	15.9
HCM LOS			C

Minor Lane/Major Mvmt	NBT	NBR	NWLn1	SBT
Capacity (veh/h)	-	-	336	-
HCM Lane V/C Ratio	-	-	0.019	-
HCM Control Delay (s)	-	-	15.9	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0.1	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	43	74	440	80	23	342
Future Volume (vph)	43	74	440	80	23	342
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	13	12	12	13
Grade (%)	3%		-4%			-3%
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.914		0.979			
Flt Protected	0.982					0.997
Satd. Flow (prot)	1668	0	1912	0	0	1933
Flt Permitted	0.982					0.997
Satd. Flow (perm)	1668	0	1912	0	0	1933
Link Speed (mph)	30		30			30
Link Distance (ft)	291		332			435
Travel Time (s)	6.6		7.5			9.9
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	0%	3%	0%	0%	3%
Adj. Flow (vph)	46	80	473	86	25	368
Shared Lane Traffic (%)						
Lane Group Flow (vph)	126	0	559	0	0	393
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.02	1.02	0.93	0.97	0.98	0.94
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	43	74	440	80	23	342
Future Vol, veh/h	43	74	440	80	23	342
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, %	3	-	-4	-	-	-3
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	0	3	0	0	3
Mvmt Flow	46	80	473	86	25	368

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	934	516	0	0	559	0
Stage 1	516	-	-	-	-	-
Stage 2	418	-	-	-	-	-
Critical Hdwy	7.02	6.5	-	-	4.1	-
Critical Hdwy Stg 1	6.02	-	-	-	-	-
Critical Hdwy Stg 2	6.02	-	-	-	-	-
Follow-up Hdwy	3.518	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	252	539	-	-	1022	-
Stage 1	550	-	-	-	-	-
Stage 2	620	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	244	539	-	-	1022	-
Mov Cap-2 Maneuver	244	-	-	-	-	-
Stage 1	550	-	-	-	-	-
Stage 2	601	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19.5	0	0.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	373	1022	-
HCM Lane V/C Ratio	-	-	0.337	0.024	-
HCM Control Delay (s)	-	-	19.5	8.6	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	1.5	0.1	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	47	7	6	64	8	10	22	4	5	11	21
Future Volume (vph)	27	47	7	6	64	8	10	22	4	5	11	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	10	12	12	12	12	12	13	12	12	10	12
Grade (%)		0%			2%			3%			6%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.989			0.985			0.986			0.924	
Flt Protected		0.983			0.996			0.986			0.994	
Satd. Flow (prot)	0	1566	0	0	1739	0	0	1732	0	0	1490	0
Flt Permitted		0.983			0.996			0.986			0.994	
Satd. Flow (perm)	0	1566	0	0	1739	0	0	1732	0	0	1490	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		848			639			544			490	
Travel Time (s)		19.3			14.5			12.4			11.1	
Confl. Peds. (#/hr)	1		2	1			2		1			1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	4%	9%	43%	17%	6%	0%	10%	5%	25%	25%	0%	5%
Adj. Flow (vph)	29	50	7	6	68	9	11	23	4	5	12	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	86	0	0	83	0	0	38	0	0	39	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.09	1.00	1.01	1.01	1.01	1.02	0.98	1.02	1.04	1.14	1.04
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	27	47	7	6	64	8	10	22	4	5	11	21
Future Vol, veh/h	27	47	7	6	64	8	10	22	4	5	11	21
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	4	9	43	17	6	0	10	5	25	25	0	5
Mvmt Flow	29	50	7	6	68	9	11	23	4	5	12	22
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	7.7	7.9	7.7	7.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	28%	33%	8%	14%
Vol Thru, %	61%	58%	82%	30%
Vol Right, %	11%	9%	10%	57%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	36	81	78	37
LT Vol	10	27	6	5
Through Vol	22	47	64	11
RT Vol	4	7	8	21
Lane Flow Rate	38	86	83	39
Geometry Grp	1	1	1	1
Degree of Util (X)	0.048	0.1	0.1	0.049
Departure Headway (Hd)	4.488	4.181	4.344	4.441
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	802	846	816	811
Service Time	2.49	2.259	2.42	2.442
HCM Lane V/C Ratio	0.047	0.102	0.102	0.048
HCM Control Delay	7.7	7.7	7.9	7.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.3	0.3	0.2

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	16	41	64	18	10	24
Future Volume (vph)	16	41	64	18	10	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	12	12	12	11	12
Grade (%)		-3%	0%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.970		0.905	
Flt Protected		0.986			0.985	
Satd. Flow (prot)	0	1864	1807	0	1605	0
Flt Permitted		0.986			0.985	
Satd. Flow (perm)	0	1864	1807	0	1605	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		639	571		286	
Travel Time (s)		14.5	13.0		6.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	17	45	70	20	11	26
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	62	90	0	37	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		11	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.12	0.98	1.00	1.00	1.04	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	16	41	64	18	10	24
Future Vol, veh/h	16	41	64	18	10	24
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, %	-	-3	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	45	70	20	11	26

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	90	0	-	0	159	80
Stage 1	-	-	-	-	80	-
Stage 2	-	-	-	-	79	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1505	-	-	-	832	980
Stage 1	-	-	-	-	943	-
Stage 2	-	-	-	-	944	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1505	-	-	-	822	980
Mov Cap-2 Maneuver	-	-	-	-	822	-
Stage 1	-	-	-	-	932	-
Stage 2	-	-	-	-	944	-

Approach	EB	WB	SB
HCM Control Delay, s	2.1	0	9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1505	-	-	-	928
HCM Lane V/C Ratio	0.012	-	-	-	0.04
HCM Control Delay (s)	7.4	0	-	-	9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	118	19	6	115	66	11	3	7	45	1	10
Future Volume (vph)	7	118	19	6	115	66	11	3	7	45	1	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	12	12	12	12	11
Grade (%)		-6%			1%			3%			3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.983			0.952			0.953			0.975	
Flt Protected		0.997			0.999			0.975			0.962	
Satd. Flow (prot)	0	1918	0	0	1727	0	0	1739	0	0	1755	0
Flt Permitted		0.997			0.999			0.975			0.962	
Satd. Flow (perm)	0	1918	0	0	1727	0	0	1739	0	0	1755	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		504			567			216			341	
Travel Time (s)		11.5			12.9			4.9			7.8	
Confl. Peds. (#/hr)			1	1					7	7		
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%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	8	127	20	6	124	71	12	3	8	48	1	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	155	0	0	201	0	0	23	0	0	60	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.96	0.96	0.96	1.01	1.05	1.01	1.02	1.02	1.02	1.02	1.02	1.07
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	118	19	6	115	66	11	3	7	45	1	10
Future Vol, veh/h	7	118	19	6	115	66	11	3	7	45	1	10
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	7	7	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-6	-	-	1	-	-	3	-	-	3	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	8	127	20	6	124	71	12	3	8	48	1	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	195	0	0	148	0	0	326	361	145	338	336	160
Stage 1	-	-	-	-	-	-	154	154	-	172	172	-
Stage 2	-	-	-	-	-	-	172	207	-	166	164	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.7	7.1	6.5	7.7	7.1	6.5
Critical Hdwy Stg 1	-	-	-	-	-	-	6.7	6.1	-	6.7	6.1	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.7	6.1	-	6.7	6.1	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1390	-	-	1446	-	-	598	536	897	586	556	879
Stage 1	-	-	-	-	-	-	832	754	-	811	739	-
Stage 2	-	-	-	-	-	-	811	709	-	818	746	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1390	-	-	1445	-	-	584	530	891	570	549	879
Mov Cap-2 Maneuver	-	-	-	-	-	-	584	530	-	570	549	-
Stage 1	-	-	-	-	-	-	826	749	-	806	735	-
Stage 2	-	-	-	-	-	-	796	705	-	798	741	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0.2	10.7	10.7
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	649	1390	-	-	1445	-	-	693
HCM Lane V/C Ratio	0.035	0.005	-	-	0.004	-	-	0.087
HCM Control Delay (s)	10.7	7.6	0	-	7.5	0	-	10.7
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.3

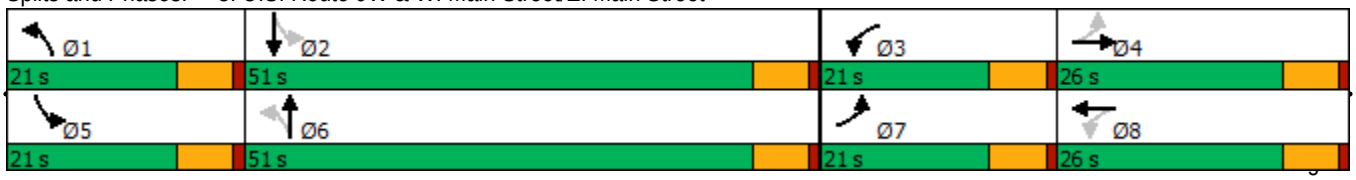
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	65	44	66	119	45	40	83	468	155	22	354	38
Future Volume (vph)	65	44	66	119	45	40	83	468	155	22	354	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	10	12	11	11	12	12	12	12	12	12	12
Grade (%)		-2%			2%			4%			-2%	
Storage Length (ft)	50		0	150		0	460		0	110		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	86			86			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.98				0.98			0.99				
Frt		0.910			0.929			0.963			0.986	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1728	1601	0	1710	1541	0	1769	1738	0	1688	1810	0
Flt Permitted	0.698			0.539			0.355			0.209		
Satd. Flow (perm)	1238	1601	0	970	1541	0	661	1738	0	371	1810	0
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					33			16			5	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		414			1841			131			576	
Travel Time (s)		9.4			41.8			3.0			13.1	
Confl. Peds. (#/hr)	9					9			2	2		
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	0%	3%	1%	3%	12%	0%	3%	1%	8%	5%	0%
Adj. Flow (vph)	69	47	70	127	48	43	88	498	165	23	377	40
Shared Lane Traffic (%)												
Lane Group Flow (vph)	69	117	0	127	91	0	88	663	0	23	417	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.03	1.08	0.99	1.06	1.06	1.01	1.03	1.03	1.03	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases	4			8			6			2		
Detector Phase	7	4		3	8		1	6		5	2	
Switch Phase												
Minimum Initial (s)	3.0	5.0		3.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	9.0	11.0		9.0	11.0		9.0	16.0		9.0	16.0	
Total Split (s)	21.0	26.0		21.0	26.0		21.0	51.0		21.0	51.0	
Total Split (%)	17.6%	21.8%		17.6%	21.8%		17.6%	42.9%		17.6%	42.9%	
Maximum Green (s)	15.0	20.0		15.0	20.0		15.0	45.0		15.0	45.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		13.0			13.0			14.0			12.0	
Pedestrian Calls (#/hr)		0			9			2			0	
v/c Ratio	0.22	0.56		0.36	0.29		0.20	0.78		0.09	0.56	
Control Delay	24.7	48.2		26.0	26.3		11.6	27.6		11.4	23.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	24.7	48.2		26.0	26.3		11.6	27.6		11.4	23.9	
Queue Length 50th (ft)	23	53		44	25		20	224		5	161	
Queue Length 95th (ft)	64	131		107	80		53	#631		19	317	
Internal Link Dist (ft)		334			1761			51			496	
Turn Bay Length (ft)	50			150			460			110		
Base Capacity (vph)	464	399		443	411		560	983		444	1019	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.15	0.29		0.29	0.22		0.16	0.67		0.05	0.41	

Intersection Summary

Area Type: Other
Cycle Length: 119
Actuated Cycle Length: 83.4
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: U.S. Route 9W & W. Main Street/E. Main Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	44	66	119	45	40	83	468	155	22	354	38
Future Volume (veh/h)	65	44	66	119	45	40	83	468	155	22	354	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.96	0.98		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1949	1979	1979	1862	1832	1832	1806	1761	1761	1859	1904	1904
Adj Flow Rate, veh/h	69	47	70	127	48	43	88	498	165	23	377	40
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	0	0	1	3	3	0	3	3	8	5	5
Cap, veh/h	341	86	129	326	134	120	419	547	181	214	718	76
Arrive On Green	0.06	0.12	0.12	0.09	0.15	0.15	0.05	0.43	0.43	0.04	0.42	0.42
Sat Flow, veh/h	1856	701	1044	1773	877	786	1720	1265	419	1770	1691	179
Grp Volume(v), veh/h	69	0	117	127	0	91	88	0	663	23	0	417
Grp Sat Flow(s),veh/h/ln	1856	0	1744	1773	0	1662	1720	0	1685	1770	0	1871
Q Serve(g_s), s	2.4	0.0	4.8	4.6	0.0	3.7	2.2	0.0	27.9	0.5	0.0	12.5
Cycle Q Clear(g_c), s	2.4	0.0	4.8	4.6	0.0	3.7	2.2	0.0	27.9	0.5	0.0	12.5
Prop In Lane	1.00		0.60	1.00		0.47	1.00		0.25	1.00		0.10
Lane Grp Cap(c), veh/h	341	0	215	326	0	254	419	0	728	214	0	795
V/C Ratio(X)	0.20	0.00	0.54	0.39	0.00	0.36	0.21	0.00	0.91	0.11	0.00	0.52
Avail Cap(c_a), veh/h	600	0	460	521	0	439	679	0	1001	494	0	1111
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.4	0.0	31.2	25.5	0.0	28.7	12.3	0.0	20.1	16.1	0.0	16.1
Incr Delay (d2), s/veh	0.1	0.0	0.8	0.3	0.0	0.3	0.1	0.0	8.0	0.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	2.0	1.9	0.0	1.5	0.8	0.0	11.5	0.2	0.0	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.5	0.0	32.0	25.8	0.0	29.1	12.4	0.0	28.1	16.2	0.0	16.3
LnGrp LOS	C	A	C	C	A	C	B	A	C	B	A	B
Approach Vol, veh/h		186			218			751			440	
Approach Delay, s/veh		30.0			27.2			26.3			16.3	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.6	38.2	12.7	15.3	9.0	38.7	10.4	17.6
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	15.0	45.0	15.0	20.0	15.0	45.0	15.0	20.0
Max Q Clear Time (g_c+I1), s	4.2	14.5	6.6	6.8	2.5	29.9	4.4	5.7
Green Ext Time (p_c), s	0.1	1.8	0.1	0.3	0.0	2.8	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	24.1
HCM 6th LOS	C

Lane Group	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Volume (vph)	697	7	0	539	0	9
Future Volume (vph)	697	7	0	539	0	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	13	13
Grade (%)	4%			-2%	9%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.999					0.865
Flt Protected						
Satd. Flow (prot)	1824	0	0	1845	0	1590
Flt Permitted						
Satd. Flow (perm)	1824	0	0	1845	0	1590
Link Speed (mph)	30			30	30	
Link Distance (ft)	694			131	271	
Travel Time (s)	15.8			3.0	6.2	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	2%	0%	4%	0%	2%
Adj. Flow (vph)	741	7	0	573	0	10
Shared Lane Traffic (%)						
Lane Group Flow (vph)	748	0	0	573	0	10
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.03	1.03	0.99	0.99	1.02	1.02
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.1

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Vol, veh/h	697	7	0	539	0	9
Future Vol, veh/h	697	7	0	539	0	9
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, %	4	-	-	-2	9	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	0	4	0	2
Mvmt Flow	741	7	0	573	0	10

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	745
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.12
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	344
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	344
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	NWLn1	SBT
Capacity (veh/h)	-	-	344	-
HCM Lane V/C Ratio	-	-	0.028	-
HCM Control Delay (s)	-	-	15.8	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0.1	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	62	57	431	80	21	321
Future Volume (vph)	62	57	431	80	21	321
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	13	12	12	13
Grade (%)	3%		-4%			-3%
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.936		0.979			
Flt Protected	0.974					0.997
Satd. Flow (prot)	1647	0	1888	0	0	1875
Flt Permitted	0.974					0.997
Satd. Flow (perm)	1647	0	1888	0	0	1875
Link Speed (mph)	30		30			30
Link Distance (ft)	291		332			435
Travel Time (s)	6.6		7.5			9.9
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	5%	2%	4%	3%	5%	6%
Adj. Flow (vph)	65	59	449	83	22	334
Shared Lane Traffic (%)						
Lane Group Flow (vph)	124	0	532	0	0	356
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.02	1.02	0.93	0.97	0.98	0.94
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	62	57	431	80	21	321
Future Vol, veh/h	62	57	431	80	21	321
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, %	3	-	-4	-	-	-3
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	5	2	4	3	5	6
Mvmt Flow	65	59	449	83	22	334

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	869	491	0	0	532	0
Stage 1	491	-	-	-	-	-
Stage 2	378	-	-	-	-	-
Critical Hdwy	7.05	6.52	-	-	4.15	-
Critical Hdwy Stg 1	6.05	-	-	-	-	-
Critical Hdwy Stg 2	6.05	-	-	-	-	-
Follow-up Hdwy	3.545	3.318	-	-	2.245	-
Pot Cap-1 Maneuver	276	554	-	-	1020	-
Stage 1	561	-	-	-	-	-
Stage 2	644	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	269	554	-	-	1020	-
Mov Cap-2 Maneuver	269	-	-	-	-	-
Stage 1	561	-	-	-	-	-
Stage 2	627	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.4	0	0.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	357	1020	-
HCM Lane V/C Ratio	-	-	0.347	0.021	-
HCM Control Delay (s)	-	-	20.4	8.6	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	1.5	0.1	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	50	7	7	71	9	14	13	3	4	7	17
Future Volume (vph)	27	50	7	7	71	9	14	13	3	4	7	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	10	12	12	12	12	12	13	12	12	10	12
Grade (%)		0%			2%			3%			6%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.989			0.986			0.988			0.917	
Flt Protected		0.984			0.996			0.976			0.994	
Satd. Flow (prot)	0	1705	0	0	1832	0	0	1865	0	0	1512	0
Flt Permitted		0.984			0.996			0.976			0.994	
Satd. Flow (perm)	0	1705	0	0	1832	0	0	1865	0	0	1512	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		848			639			544			490	
Travel Time (s)		19.3			14.5			12.4			11.1	
Confl. Peds. (#/hr)			3	3			3		3			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	14%	0%	1%	0%	0%	0%	0%	0%	0%	6%
Adj. Flow (vph)	30	56	8	8	79	10	16	14	3	4	8	19
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	94	0	0	97	0	0	33	0	0	31	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.09	1.00	1.01	1.01	1.01	1.02	0.98	1.02	1.04	1.14	1.04
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	27	50	7	7	71	9	14	13	3	4	7	17
Future Vol, veh/h	27	50	7	7	71	9	14	13	3	4	7	17
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	0	0	14	0	1	0	0	0	0	0	0	6
Mvmt Flow	30	56	8	8	79	10	16	14	3	4	8	19
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	7.6	7.6	7.6	7.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	47%	32%	8%	14%
Vol Thru, %	43%	60%	82%	25%
Vol Right, %	10%	8%	10%	61%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	30	84	87	28
LT Vol	14	27	7	4
Through Vol	13	50	71	7
RT Vol	3	7	9	17
Lane Flow Rate	33	93	97	31
Geometry Grp	1	1	1	1
Degree of Util (X)	0.04	0.106	0.108	0.034
Departure Headway (Hd)	4.285	4.101	4.038	3.917
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	823	868	882	898
Service Time	2.377	2.152	2.09	2.012
HCM Lane V/C Ratio	0.04	0.107	0.11	0.035
HCM Control Delay	7.6	7.6	7.6	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.4	0.4	0.1

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	22	47	57	11	4	6
Future Volume (vph)	22	47	57	11	4	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	12	12	12	11	12
Grade (%)		-3%	0%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.978		0.914	
Flt Protected		0.984			0.982	
Satd. Flow (prot)	0	1860	1822	0	1616	0
Flt Permitted		0.984			0.982	
Satd. Flow (perm)	0	1860	1822	0	1616	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		639	571		286	
Travel Time (s)		14.5	13.0		6.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	24	51	62	12	4	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	75	74	0	11	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		11	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.12	0.98	1.00	1.00	1.04	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	22	47	57	11	4	6
Future Vol, veh/h	22	47	57	11	4	6
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, %	-	-3	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	51	62	12	4	7

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	74	0	-	0	167	68
Stage 1	-	-	-	-	68	-
Stage 2	-	-	-	-	99	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1526	-	-	-	823	995
Stage 1	-	-	-	-	955	-
Stage 2	-	-	-	-	925	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1526	-	-	-	810	995
Mov Cap-2 Maneuver	-	-	-	-	810	-
Stage 1	-	-	-	-	940	-
Stage 2	-	-	-	-	925	-

Approach	EB	WB	SB
HCM Control Delay, s	2.4	0	9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1526	-	-	-	912
HCM Lane V/C Ratio	0.016	-	-	-	0.012
HCM Control Delay (s)	7.4	0	-	-	9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	130	14	8	65	50	12	1	2	45	3	15
Future Volume (vph)	9	130	14	8	65	50	12	1	2	45	3	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	12	12	12	12	11
Grade (%)		-6%			1%			3%			3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.988			0.945			0.984			0.968	
Flt Protected		0.997			0.997			0.960			0.965	
Satd. Flow (prot)	0	1928	0	0	1722	0	0	1768	0	0	1748	0
Flt Permitted		0.997			0.997			0.960			0.965	
Satd. Flow (perm)	0	1928	0	0	1722	0	0	1768	0	0	1748	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		504			567			216			341	
Travel Time (s)		11.5			12.9			4.9			7.8	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	10	151	16	9	76	58	14	1	2	52	3	17
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	177	0	0	143	0	0	17	0	0	72	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.96	0.96	0.96	1.01	1.05	1.01	1.02	1.02	1.02	1.02	1.02	1.07
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	130	14	8	65	50	12	1	2	45	3	15
Future Vol, veh/h	9	130	14	8	65	50	12	1	2	45	3	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-6	-	-	1	-	-	3	-	-	3	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	10	151	16	9	76	58	14	1	2	52	3	17

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	134	0	0	167	0	0	304	331	159	304	310	105
Stage 1	-	-	-	-	-	-	179	179	-	123	123	-
Stage 2	-	-	-	-	-	-	125	152	-	181	187	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.7	7.1	6.5	7.7	7.1	6.5
Critical Hdwy Stg 1	-	-	-	-	-	-	6.7	6.1	-	6.7	6.1	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.7	6.1	-	6.7	6.1	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1463	-	-	1423	-	-	620	560	880	620	577	947
Stage 1	-	-	-	-	-	-	803	733	-	868	782	-
Stage 2	-	-	-	-	-	-	866	756	-	801	726	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1463	-	-	1423	-	-	599	552	880	610	568	947
Mov Cap-2 Maneuver	-	-	-	-	-	-	599	552	-	610	568	-
Stage 1	-	-	-	-	-	-	797	727	-	861	777	-
Stage 2	-	-	-	-	-	-	840	751	-	791	720	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0.5	11	10
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	622	1463	-	-	1423	-	-	797
HCM Lane V/C Ratio	0.028	0.007	-	-	0.007	-	-	0.092
HCM Control Delay (s)	11	7.5	0	-	7.5	0	-	10
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.3

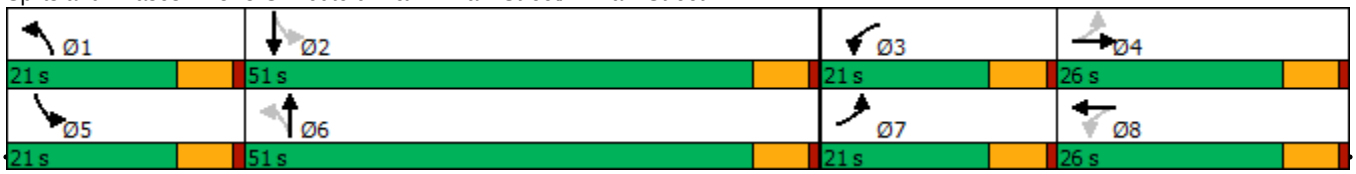
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	77	71	106	32	10	78	413	180	26	350	24
Future Volume (vph)	39	77	71	106	32	10	78	413	180	26	350	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	10	12	11	11	12	12	12	12	12	12	12
Grade (%)		-2%			2%			4%			-2%	
Storage Length (ft)	50		0	150		0	460		0	110		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	86			86			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.928			0.964			0.954			0.990	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1762	1662	0	1727	1753	0	1769	1752	0	1823	1865	0
Flt Permitted	0.727			0.460			0.353			0.173		
Satd. Flow (perm)	1349	1662	0	836	1753	0	657	1752	0	332	1865	0
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					11			21			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		414			1841			131			576	
Travel Time (s)		9.4			41.8			3.0			13.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	2%	0%
Adj. Flow (vph)	42	84	77	115	35	11	85	449	196	28	380	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	161	0	115	46	0	85	645	0	28	406	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.03	1.08	0.99	1.06	1.06	1.01	1.03	1.03	1.03	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases	4			8			6			2		
Detector Phase	7	4		3	8		1	6		5	2	
Switch Phase												
Minimum Initial (s)	3.0	5.0		3.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	9.0	11.0		9.0	11.0		9.0	16.0		9.0	16.0	
Total Split (s)	21.0	26.0		21.0	26.0		21.0	51.0		21.0	51.0	
Total Split (%)	17.6%	21.8%		17.6%	21.8%		17.6%	42.9%		17.6%	42.9%	
Maximum Green (s)	15.0	20.0		15.0	20.0		15.0	45.0		15.0	45.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		13.0			13.0			14.0			12.0	
Pedestrian Calls (#/hr)		0			9			2			0	
v/c Ratio	0.12	0.63		0.32	0.10		0.21	0.82		0.11	0.54	
Control Delay	24.4	49.1		26.1	27.0		12.4	32.2		12.2	24.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	24.4	49.1		26.1	27.0		12.4	32.2		12.2	24.5	
Queue Length 50th (ft)	18	95		53	18		22	318		7	170	
Queue Length 95th (ft)	43	172		97	50		53	#616		23	314	
Internal Link Dist (ft)		334			1761			51			496	
Turn Bay Length (ft)	50			150			460			110		
Base Capacity (vph)	512	416		447	479		547	996		451	1052	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.08	0.39		0.26	0.10		0.16	0.65		0.06	0.39	

Intersection Summary

Area Type: Other
Cycle Length: 119
Actuated Cycle Length: 85.8
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: U.S. Route 9W & W. Main Street/E. Main Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	77	71	106	32	10	78	413	180	26	350	24
Future Volume (veh/h)	39	77	71	106	32	10	78	413	180	26	350	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1979	1979	1979	1876	1876	1876	1806	1776	1776	1979	1949	1949
Adj Flow Rate, veh/h	42	84	77	115	35	11	85	449	196	28	380	26
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	2	2	0	2	2
Cap, veh/h	359	112	103	288	210	66	430	498	217	234	758	52
Arrive On Green	0.05	0.12	0.12	0.08	0.15	0.15	0.05	0.42	0.42	0.04	0.42	0.42
Sat Flow, veh/h	1884	951	871	1787	1369	430	1720	1172	512	1884	1803	123
Grp Volume(v), veh/h	42	0	161	115	0	46	85	0	645	28	0	406
Grp Sat Flow(s),veh/h/ln	1884	0	1822	1787	0	1799	1720	0	1684	1884	0	1926
Q Serve(g_s), s	1.4	0.0	6.2	4.0	0.0	1.6	2.0	0.0	25.7	0.6	0.0	11.2
Cycle Q Clear(g_c), s	1.4	0.0	6.2	4.0	0.0	1.6	2.0	0.0	25.7	0.6	0.0	11.2
Prop In Lane	1.00		0.48	1.00		0.24	1.00		0.30	1.00		0.06
Lane Grp Cap(c), veh/h	359	0	215	288	0	277	430	0	715	234	0	809
V/C Ratio(X)	0.12	0.00	0.75	0.40	0.00	0.17	0.20	0.00	0.90	0.12	0.00	0.50
Avail Cap(c_a), veh/h	662	0	506	512	0	499	709	0	1052	548	0	1203
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.7	0.0	30.7	24.9	0.0	26.5	11.7	0.0	19.3	15.2	0.0	15.3
Incr Delay (d2), s/veh	0.1	0.0	2.0	0.3	0.0	0.1	0.1	0.0	5.9	0.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	2.7	1.6	0.0	0.7	0.7	0.0	10.2	0.2	0.0	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.7	0.0	32.7	25.2	0.0	26.6	11.8	0.0	25.2	15.3	0.0	15.5
LnGrp LOS	C	A	C	C	A	C	B	A	C	B	A	B
Approach Vol, veh/h		203			161			730			434	
Approach Delay, s/veh		31.2			25.6			23.7			15.5	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.3	36.3	11.9	14.5	9.0	36.6	9.4	17.1
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	15.0	45.0	15.0	20.0	15.0	45.0	15.0	20.0
Max Q Clear Time (g_c+I1), s	4.0	13.2	6.0	8.2	2.6	27.7	3.4	3.6
Green Ext Time (p_c), s	0.1	1.7	0.1	0.4	0.0	2.9	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	22.6
HCM 6th LOS	C

Lane Group	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Volume (vph)	663	13	0	527	0	8
Future Volume (vph)	663	13	0	527	0	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	13	13
Grade (%)	4%			-2%	9%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.997					0.865
Flt Protected						
Satd. Flow (prot)	1838	0	0	1900	0	1590
Flt Permitted						
Satd. Flow (perm)	1838	0	0	1900	0	1590
Link Speed (mph)	30			30	30	
Link Distance (ft)	694			131	271	
Travel Time (s)	15.8			3.0	6.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	2%	0%	1%	0%	2%
Adj. Flow (vph)	721	14	0	573	0	9
Shared Lane Traffic (%)						
Lane Group Flow (vph)	735	0	0	573	0	9
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.03	1.03	0.99	0.99	1.02	1.02
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.1

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Vol, veh/h	663	13	0	527	0	8
Future Vol, veh/h	663	13	0	527	0	8
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, %	4	-	-	-2	9	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	2	0	1	0	2
Mvmt Flow	721	14	0	573	0	9

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	728
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.12
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	353
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	353
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	NB	SB	NW
HCM Control Delay, s	0	0	15.5
HCM LOS			C

Minor Lane/Major Mvmt	NBT	NBR	NWLn1	SBT
Capacity (veh/h)	-	-	353	-
HCM Lane V/C Ratio	-	-	0.025	-
HCM Control Delay (s)	-	-	15.5	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0.1	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	50	37	343	69	36	287
Future Volume (vph)	50	37	343	69	36	287
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	13	12	12	13
Grade (%)	3%		-4%			-3%
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.943		0.977			
Flt Protected	0.972					0.994
Satd. Flow (prot)	1715	0	1918	0	0	1940
Flt Permitted	0.972					0.994
Satd. Flow (perm)	1715	0	1918	0	0	1940
Link Speed (mph)	30		30			30
Link Distance (ft)	291		332			435
Travel Time (s)	6.6		7.5			9.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	2%	2%	3%	2%
Adj. Flow (vph)	54	40	373	75	39	312
Shared Lane Traffic (%)						
Lane Group Flow (vph)	94	0	448	0	0	351
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.02	1.02	0.93	0.97	0.98	0.94
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	50	37	343	69	36	287
Future Vol, veh/h	50	37	343	69	36	287
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, %	3	-	-4	-	-	-3
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	2	2	3	2
Mvmt Flow	54	40	373	75	39	312

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	801	411	0	0	448	0
Stage 1	411	-	-	-	-	-
Stage 2	390	-	-	-	-	-
Critical Hdwy	7	6.5	-	-	4.13	-
Critical Hdwy Stg 1	6	-	-	-	-	-
Critical Hdwy Stg 2	6	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.227	-
Pot Cap-1 Maneuver	312	623	-	-	1107	-
Stage 1	629	-	-	-	-	-
Stage 2	645	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	299	623	-	-	1107	-
Mov Cap-2 Maneuver	299	-	-	-	-	-
Stage 1	629	-	-	-	-	-
Stage 2	617	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.4	0	0.9
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	384	1107	-
HCM Lane V/C Ratio	-	-	0.246	0.035	-
HCM Control Delay (s)	-	-	17.4	8.4	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	1	0.1	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	59	8	5	51	5	5	4	4	2	9	16
Future Volume (vph)	19	59	8	5	51	5	5	4	4	2	9	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	10	12	12	12	12	12	13	12	12	10	12
Grade (%)		0%			2%			3%			6%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.988			0.988			0.958			0.919	
Flt Protected		0.989			0.996			0.982			0.997	
Satd. Flow (prot)	0	1709	0	0	1851	0	0	1819	0	0	1576	0
Flt Permitted		0.989			0.996			0.982			0.997	
Satd. Flow (perm)	0	1709	0	0	1851	0	0	1819	0	0	1576	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		848			639			544			490	
Travel Time (s)		19.3			14.5			12.4			11.1	
Confl. Peds. (#/hr)	1					1				1		1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	22	67	9	6	58	6	6	5	5	2	10	18
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	98	0	0	70	0	0	16	0	0	30	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.09	1.00	1.01	1.01	1.01	1.02	0.98	1.02	1.04	1.14	1.04
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	7.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	19	59	8	5	51	5	5	4	4	2	9	16
Future Vol, veh/h	19	59	8	5	51	5	5	4	4	2	9	16
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	0	2	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	22	67	9	6	58	6	6	5	5	2	10	18
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	7.5	7.4	7.3	7.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	38%	22%	8%	7%
Vol Thru, %	31%	69%	84%	33%
Vol Right, %	31%	9%	8%	59%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	13	86	61	27
LT Vol	5	19	5	2
Through Vol	4	59	51	9
RT Vol	4	8	5	16
Lane Flow Rate	15	98	69	31
Geometry Grp	1	1	1	1
Degree of Util (X)	0.017	0.109	0.077	0.033
Departure Headway (Hd)	4.105	4.019	4.019	3.858
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	861	890	888	916
Service Time	2.181	2.052	2.058	1.933
HCM Lane V/C Ratio	0.017	0.11	0.078	0.034
HCM Control Delay	7.3	7.5	7.4	7.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.4	0.2	0.1

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	68	46	21	23	35	83
Future Volume (vph)	68	46	21	23	35	83
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	12	12	12	11	12
Grade (%)		-3%	0%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.929		0.905	
Flt Protected		0.971			0.985	
Satd. Flow (prot)	0	1821	1452	0	1391	0
Flt Permitted		0.971			0.985	
Satd. Flow (perm)	0	1821	1452	0	1391	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		639	571		286	
Travel Time (s)		14.5	13.0		6.5	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	0%	7%	30%	14%	17%	18%
Adj. Flow (vph)	82	55	25	28	42	100
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	137	53	0	142	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		11	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.12	0.98	1.00	1.00	1.04	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	6.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	68	46	21	23	35	83
Future Vol, veh/h	68	46	21	23	35	83
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, %	-	-3	0	-	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	0	7	30	14	17	18
Mvmt Flow	82	55	25	28	42	100

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	53	0	-	0	258	39
Stage 1	-	-	-	-	39	-
Stage 2	-	-	-	-	219	-
Critical Hdwy	4.1	-	-	-	6.57	6.38
Critical Hdwy Stg 1	-	-	-	-	5.57	-
Critical Hdwy Stg 2	-	-	-	-	5.57	-
Follow-up Hdwy	2.2	-	-	-	3.653	3.462
Pot Cap-1 Maneuver	1566	-	-	-	699	989
Stage 1	-	-	-	-	946	-
Stage 2	-	-	-	-	783	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1566	-	-	-	661	989
Mov Cap-2 Maneuver	-	-	-	-	661	-
Stage 1	-	-	-	-	895	-
Stage 2	-	-	-	-	783	-

Approach	EB	WB	SB
HCM Control Delay, s	4.4	0	10
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1566	-	-	-	862
HCM Lane V/C Ratio	0.052	-	-	-	0.165
HCM Control Delay (s)	7.4	0	-	-	10
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	113	8	1	45	36	17	0	5	64	0	26
Future Volume (vph)	15	113	8	1	45	36	17	0	5	64	0	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	12	12	12	12	11
Grade (%)		-6%			1%			3%			3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.992			0.940			0.970			0.961	
Flt Protected		0.994						0.963			0.966	
Satd. Flow (prot)	0	1688	0	0	1431	0	0	1670	0	0	1604	0
Flt Permitted		0.994						0.963			0.966	
Satd. Flow (perm)	0	1688	0	0	1431	0	0	1670	0	0	1604	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		504			567			216			341	
Travel Time (s)		11.5			12.9			4.9			7.8	
Confl. Peds. (#/hr)				11		11			11	11		
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	33%	12%	12%	0%	22%	18%	6%	0%	0%	6%	0%	14%
Adj. Flow (vph)	19	141	10	1	56	45	21	0	6	80	0	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	170	0	0	102	0	0	27	0	0	113	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.96	0.96	0.96	1.01	1.05	1.01	1.02	1.02	1.02	1.02	1.02	1.07
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	113	8	1	45	36	17	0	5	64	0	26
Future Vol, veh/h	15	113	8	1	45	36	17	0	5	64	0	26
Conflicting Peds, #/hr	0	0	0	11	0	11	0	0	11	11	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-6	-	-	1	-	-	3	-	-	3	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	33	12	12	0	22	18	6	0	0	6	0	14
Mvmt Flow	19	141	10	1	56	45	21	0	6	80	0	33

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	112	0	0	162	0	0	276	309	168	290	292	90
Stage 1	-	-	-	-	-	-	195	195	-	92	92	-
Stage 2	-	-	-	-	-	-	81	114	-	198	200	-
Critical Hdwy	4.43	-	-	4.1	-	-	7.76	7.1	6.5	7.76	7.1	6.64
Critical Hdwy Stg 1	-	-	-	-	-	-	6.76	6.1	-	6.76	6.1	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.76	6.1	-	6.76	6.1	-
Follow-up Hdwy	2.497	-	-	2.2	-	-	3.554	4	3.3	3.554	4	3.426
Pot Cap-1 Maneuver	1306	-	-	1429	-	-	638	578	869	623	592	929
Stage 1	-	-	-	-	-	-	772	719	-	892	810	-
Stage 2	-	-	-	-	-	-	905	790	-	769	715	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1292	-	-	1414	-	-	601	557	852	598	570	919
Mov Cap-2 Maneuver	-	-	-	-	-	-	601	557	-	598	570	-
Stage 1	-	-	-	-	-	-	752	700	-	869	801	-
Stage 2	-	-	-	-	-	-	872	781	-	744	696	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.9	0.1	10.8	9.9
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	644	1292	-	-	1414	-	-	841
HCM Lane V/C Ratio	0.043	0.015	-	-	0.001	-	-	0.134
HCM Control Delay (s)	10.8	7.8	0	-	7.5	0	-	9.9
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.5

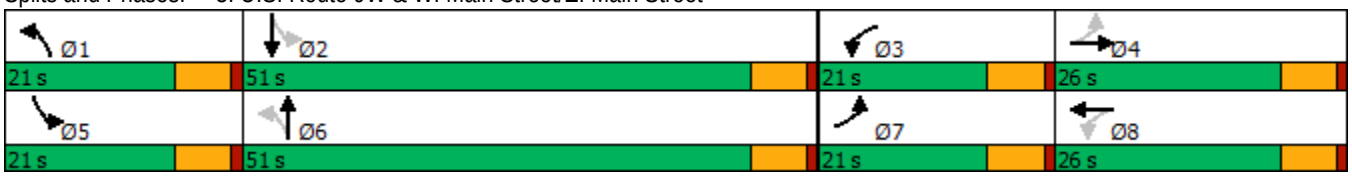
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	33	40	69	120	48	29	40	325	91	29	459	41
Future Volume (vph)	33	40	69	120	48	29	40	325	91	29	459	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	10	12	11	11	12	12	12	12	12	12	12
Grade (%)		-2%			2%			4%			-2%	
Storage Length (ft)	50		0	150		0	460		0	110		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	86			86			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.905			0.944			0.967			0.988	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1711	1541	0	1645	1527	0	1608	1564	0	1823	1714	0
Flt Permitted	0.702			0.439			0.258			0.355		
Satd. Flow (perm)	1264	1541	0	760	1527	0	437	1564	0	681	1714	0
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					22			14			4	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		414			1841			131			576	
Travel Time (s)		9.4			41.8			3.0			13.1	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	3%	9%	3%	5%	9%	18%	10%	16%	12%	0%	11%	6%
Adj. Flow (vph)	36	44	76	132	53	32	44	357	100	32	504	45
Shared Lane Traffic (%)												
Lane Group Flow (vph)	36	120	0	132	85	0	44	457	0	32	549	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.03	1.08	0.99	1.06	1.06	1.01	1.03	1.03	1.03	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases	4			8			6			2		
Detector Phase	7	4		3	8		1	6		5	2	
Switch Phase												
Minimum Initial (s)	3.0	5.0		3.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	9.0	11.0		9.0	11.0		9.0	16.0		9.0	16.0	
Total Split (s)	21.0	26.0		21.0	26.0		21.0	51.0		21.0	51.0	
Total Split (%)	17.6%	21.8%		17.6%	21.8%		17.6%	42.9%		17.6%	42.9%	
Maximum Green (s)	15.0	20.0		15.0	20.0		15.0	45.0		15.0	45.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		13.0			13.0			14.0			12.0	
Pedestrian Calls (#/hr)		0			9			2			0	
v/c Ratio	0.12	0.52		0.40	0.24		0.14	0.65		0.08	0.72	
Control Delay	23.4	45.3		26.0	26.3		12.2	25.4		11.6	28.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	23.4	45.3		26.0	26.3		12.2	25.4		11.6	28.5	
Queue Length 50th (ft)	13	59		50	28		10	192		7	248	
Queue Length 95th (ft)	40	137		112	80		32	373		25	473	
Internal Link Dist (ft)		334			1761			51			496	
Turn Bay Length (ft)	50			150			460			110		
Base Capacity (vph)	522	454		463	489		486	1000		606	1088	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.07	0.26		0.29	0.17		0.09	0.46		0.05	0.50	

Intersection Summary

Area Type: Other
Cycle Length: 119
Actuated Cycle Length: 77.8
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 3: U.S. Route 9W & W. Main Street/E. Main Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	40	69	120	48	29	40	325	91	29	459	41
Future Volume (veh/h)	33	40	69	120	48	29	40	325	91	29	459	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1934	1844	1844	1802	1743	1743	1658	1569	1569	1979	1814	1814
Adj Flow Rate, veh/h	36	44	76	132	53	32	44	357	100	32	504	45
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	9	9	5	9	9	10	16	16	0	11	11
Cap, veh/h	354	64	111	334	159	96	232	412	115	278	610	54
Arrive On Green	0.05	0.11	0.11	0.10	0.16	0.16	0.03	0.35	0.35	0.05	0.37	0.37
Sat Flow, veh/h	1842	607	1048	1717	1018	615	1579	1179	330	1884	1641	146
Grp Volume(v), veh/h	36	0	120	132	0	85	44	0	457	32	0	549
Grp Sat Flow(s),veh/h/ln	1842	0	1655	1717	0	1632	1579	0	1509	1884	0	1787
Q Serve(g_s), s	1.0	0.0	4.2	4.0	0.0	2.8	1.1	0.0	17.1	0.6	0.0	16.9
Cycle Q Clear(g_c), s	1.0	0.0	4.2	4.0	0.0	2.8	1.1	0.0	17.1	0.6	0.0	16.9
Prop In Lane	1.00		0.63	1.00		0.38	1.00		0.22	1.00		0.08
Lane Grp Cap(c), veh/h	354	0	176	334	0	255	232	0	527	278	0	664
V/C Ratio(X)	0.10	0.00	0.68	0.40	0.00	0.33	0.19	0.00	0.87	0.12	0.00	0.83
Avail Cap(c_a), veh/h	718	0	546	588	0	538	580	0	1120	650	0	1326
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.0	0.0	26.1	20.9	0.0	22.8	14.3	0.0	18.4	13.7	0.0	17.3
Incr Delay (d2), s/veh	0.0	0.0	1.7	0.3	0.0	0.3	0.1	0.0	1.7	0.1	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	1.7	1.5	0.0	1.0	0.4	0.0	5.5	0.2	0.0	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.1	0.0	27.9	21.2	0.0	23.1	14.4	0.0	20.2	13.7	0.0	18.3
LnGrp LOS	C	A	C	C	A	C	B	A	C	B	A	B
Approach Vol, veh/h		156			217			501			581	
Approach Delay, s/veh		26.5			21.9			19.7			18.0	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.6	28.5	12.0	12.4	9.0	27.2	9.0	15.5
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	15.0	45.0	15.0	20.0	15.0	45.0	15.0	20.0
Max Q Clear Time (g_c+I1), s	3.1	18.9	6.0	6.2	2.6	19.1	3.0	4.8
Green Ext Time (p_c), s	0.0	2.5	0.1	0.3	0.0	2.0	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	20.1
HCM 6th LOS	C

Lane Group	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Volume (vph)	453	0	0	648	0	3
Future Volume (vph)	453	0	0	648	0	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	13	13
Grade (%)	4%			-2%	9%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						0.865
Flt Protected						
Satd. Flow (prot)	1619	0	0	1761	0	1590
Flt Permitted						
Satd. Flow (perm)	1619	0	0	1761	0	1590
Link Speed (mph)	30			30	30	
Link Distance (ft)	694			131	271	
Travel Time (s)	15.8			3.0	6.2	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	15%	2%	0%	9%	0%	2%
Adj. Flow (vph)	498	0	0	712	0	3
Shared Lane Traffic (%)						
Lane Group Flow (vph)	498	0	0	712	0	3
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.03	1.03	0.99	0.99	1.02	1.02
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Vol, veh/h	453	0	0	648	0	3
Future Vol, veh/h	453	0	0	648	0	3
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, %	4	-	-	-2	9	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	15	2	0	9	0	2
Mvmt Flow	498	0	0	712	0	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	498
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.12
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	505
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	505
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	NB	SB	NW
HCM Control Delay, s	0	0	12.2
HCM LOS			B

Minor Lane/Major Mvmt	NBT	NBR	NWLn1	SBT
Capacity (veh/h)	-	-	505	-
HCM Lane V/C Ratio	-	-	0.007	-
HCM Control Delay (s)	-	-	12.2	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	89	51	241	62	42	356
Future Volume (vph)	89	51	241	62	42	356
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	13	12	12	13
Grade (%)	3%		-4%			-3%
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.951		0.972			
Flt Protected	0.969					0.995
Satd. Flow (prot)	1523	0	1697	0	0	1799
Flt Permitted	0.969					0.995
Satd. Flow (perm)	1523	0	1697	0	0	1799
Link Speed (mph)	30		30			30
Link Distance (ft)	291		332			435
Travel Time (s)	6.6		7.5			9.9
Confl. Peds. (#/hr)	3	1		3	1	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	7%	24%	18%	2%	12%	10%
Adj. Flow (vph)	99	57	268	69	47	396
Shared Lane Traffic (%)						
Lane Group Flow (vph)	156	0	337	0	0	443
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.02	1.02	0.93	0.97	0.98	0.94
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	4.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	89	51	241	62	42	356
Future Vol, veh/h	89	51	241	62	42	356
Conflicting Peds, #/hr	3	1	0	3	1	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, %	3	-	-4	-	-	-3
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	7	24	18	2	12	10
Mvmt Flow	99	57	268	69	47	396

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	799	307	0	0	340	0
Stage 1	306	-	-	-	-	-
Stage 2	493	-	-	-	-	-
Critical Hdwy	7.07	6.74	-	-	4.22	-
Critical Hdwy Stg 1	6.07	-	-	-	-	-
Critical Hdwy Stg 2	6.07	-	-	-	-	-
Follow-up Hdwy	3.563	3.516	-	-	2.308	-
Pot Cap-1 Maneuver	304	667	-	-	1165	-
Stage 1	699	-	-	-	-	-
Stage 2	556	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	286	664	-	-	1162	-
Mov Cap-2 Maneuver	286	-	-	-	-	-
Stage 1	697	-	-	-	-	-
Stage 2	525	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	22.3	0	0.9
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	361	1162	-
HCM Lane V/C Ratio	-	-	0.431	0.04	-
HCM Control Delay (s)	-	-	22.3	8.2	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	2.1	0.1	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	84	5	35	70	3	11	5	21	10	11	21
Future Volume (vph)	6	84	5	35	70	3	11	5	21	10	11	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	10	12	12	12	12	12	13	12	12	10	12
Grade (%)		0%			2%			3%			6%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.992			0.997			0.925			0.932	
Flt Protected		0.997			0.984			0.985			0.989	
Satd. Flow (prot)	0	1632	0	0	1505	0	0	1332	0	0	1476	0
Flt Permitted		0.997			0.984			0.985			0.989	
Satd. Flow (perm)	0	1632	0	0	1505	0	0	1332	0	0	1476	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		848			639			544			490	
Travel Time (s)		19.3			14.5			12.4			11.1	
Confl. Peds. (#/hr)	4		1	1		4	1		1	4		4
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	17%	6%	20%	20%	21%	100%	46%	0%	33%	0%	9%	10%
Adj. Flow (vph)	7	95	6	40	80	3	13	6	24	11	13	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	108	0	0	123	0	0	43	0	0	48	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.09	1.00	1.01	1.01	1.01	1.02	0.98	1.02	1.04	1.14	1.04
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

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	84	5	35	70	3	11	5	21	10	11	21
Future Vol, veh/h	6	84	5	35	70	3	11	5	21	10	11	21
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	17	6	20	20	21	100	46	0	33	0	9	10
Mvmt Flow	7	95	6	40	80	3	13	6	24	11	13	24
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	8.2	8.5	8.3	7.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	30%	6%	32%	24%
Vol Thru, %	14%	88%	65%	26%
Vol Right, %	57%	5%	3%	50%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	37	95	108	42
LT Vol	11	6	35	10
Through Vol	5	84	70	11
RT Vol	21	5	3	21
Lane Flow Rate	42	108	123	48
Geometry Grp	1	1	1	1
Degree of Util (X)	0.058	0.136	0.158	0.056
Departure Headway (Hd)	5.005	4.52	4.631	4.249
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	718	796	779	845
Service Time	3.02	2.532	2.631	2.265
HCM Lane V/C Ratio	0.058	0.136	0.158	0.057
HCM Control Delay	8.3	8.2	8.5	7.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.5	0.6	0.2

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	92	46	71	29	34	72
Future Volume (vph)	92	46	71	29	34	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	12	12	12	11	12
Grade (%)		-3%	0%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.961		0.908	
Flt Protected		0.968			0.984	
Satd. Flow (prot)	0	1784	1751	0	1641	0
Flt Permitted		0.968			0.984	
Satd. Flow (perm)	0	1784	1751	0	1641	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		639	571		286	
Travel Time (s)		14.5	13.0		6.5	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	0%	14%	6%	0%	0%	0%
Adj. Flow (vph)	110	55	85	35	40	86
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	165	120	0	126	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		11	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.12	0.98	1.00	1.00	1.04	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	5.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	92	46	71	29	34	72
Future Vol, veh/h	92	46	71	29	34	72
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, %	-	-3	0	-	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	14	6	0	0	0
Mvmt Flow	110	55	85	35	40	86

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	120	0	-	0	378	103
Stage 1	-	-	-	-	103	-
Stage 2	-	-	-	-	275	-
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	1480	-	-	-	628	957
Stage 1	-	-	-	-	926	-
Stage 2	-	-	-	-	776	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1480	-	-	-	580	957
Mov Cap-2 Maneuver	-	-	-	-	580	-
Stage 1	-	-	-	-	855	-
Stage 2	-	-	-	-	776	-

Approach	EB	WB	SB
HCM Control Delay, s	5.1	0	10.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1480	-	-	-	792
HCM Lane V/C Ratio	0.074	-	-	-	0.159
HCM Control Delay (s)	7.6	0	-	-	10.4
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	90	12	6	121	83	9	0	2	61	1	21
Future Volume (vph)	26	90	12	6	121	83	9	0	2	61	1	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	12	12	12	12	11
Grade (%)		-6%			1%			3%			3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.988			0.947			0.977			0.966	
Flt Protected		0.990			0.999			0.960			0.965	
Satd. Flow (prot)	0	1542	0	0	1625	0	0	1608	0	0	1582	0
Flt Permitted		0.990			0.999			0.960			0.965	
Satd. Flow (perm)	0	1542	0	0	1625	0	0	1608	0	0	1582	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		504			567			216			341	
Travel Time (s)		11.5			12.9			4.9			7.8	
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	18%	28%	8%	0%	9%	3%	11%	0%	0%	14%	0%	0%
Adj. Flow (vph)	29	101	13	7	136	93	10	0	2	69	1	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	143	0	0	236	0	0	12	0	0	94	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.96	0.96	0.96	1.01	1.05	1.01	1.02	1.02	1.02	1.02	1.02	1.07
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	26	90	12	6	121	83	9	0	2	61	1	21
Future Vol, veh/h	26	90	12	6	121	83	9	0	2	61	1	21
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-6	-	-	1	-	-	3	-	-	3	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	18	28	8	0	9	3	11	0	0	14	0	0
Mvmt Flow	29	101	13	7	136	93	10	0	2	69	1	24

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	230	0	0	115	0	0	365	411	110	366	371	185
Stage 1	-	-	-	-	-	-	167	167	-	198	198	-
Stage 2	-	-	-	-	-	-	198	244	-	168	173	-
Critical Hdwy	4.28	-	-	4.1	-	-	7.81	7.1	6.5	7.84	7.1	6.5
Critical Hdwy Stg 1	-	-	-	-	-	-	6.81	6.1	-	6.84	6.1	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.81	6.1	-	6.84	6.1	-
Follow-up Hdwy	2.362	-	-	2.2	-	-	3.599	4	3.3	3.626	4	3.3
Pot Cap-1 Maneuver	1249	-	-	1487	-	-	541	498	940	535	528	849
Stage 1	-	-	-	-	-	-	792	743	-	752	717	-
Stage 2	-	-	-	-	-	-	758	680	-	784	738	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1248	-	-	1486	-	-	512	482	938	521	511	847
Mov Cap-2 Maneuver	-	-	-	-	-	-	512	482	-	521	511	-
Stage 1	-	-	-	-	-	-	771	724	-	732	713	-
Stage 2	-	-	-	-	-	-	731	676	-	762	719	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.6	0.2	11.6	11
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	558	1248	-	-	1486	-	-	697
HCM Lane V/C Ratio	0.022	0.023	-	-	0.005	-	-	0.134
HCM Control Delay (s)	11.6	8	0	-	7.4	0	-	11
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.5

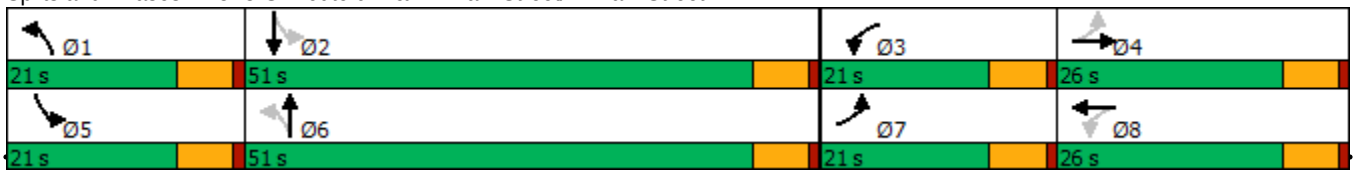
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	58	51	59	143	78	41	98	506	163	29	403	36
Future Volume (vph)	58	51	59	143	78	41	98	506	163	29	403	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	10	12	11	11	12	12	12	12	12	12	12
Grade (%)		-2%			2%			4%			-2%	
Storage Length (ft)	50		0	150		0	460		0	110		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	86			86			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.920			0.948			0.963			0.988	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1728	1538	0	1694	1662	0	1751	1745	0	1585	1862	0
Flt Permitted	0.675			0.492			0.324			0.162		
Satd. Flow (perm)	1228	1538	0	877	1662	0	597	1745	0	270	1862	0
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					19			16			4	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		414			1841			131			576	
Travel Time (s)		9.4			41.8			3.0			13.1	
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 (%)	2%	13%	2%	2%	2%	7%	1%	3%	2%	15%	2%	0%
Adj. Flow (vph)	62	55	63	154	84	44	105	544	175	31	433	39
Shared Lane Traffic (%)												
Lane Group Flow (vph)	62	118	0	154	128	0	105	719	0	31	472	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.03	1.08	0.99	1.06	1.06	1.01	1.03	1.03	1.03	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases	4			8			6			2		
Detector Phase	7	4		3	8		1	6		5	2	
Switch Phase												
Minimum Initial (s)	3.0	5.0		3.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	9.0	11.0		9.0	11.0		9.0	16.0		9.0	16.0	
Total Split (s)	21.0	26.0		21.0	26.0		21.0	51.0		21.0	51.0	
Total Split (%)	17.6%	21.8%		17.6%	21.8%		17.6%	42.9%		17.6%	42.9%	
Maximum Green (s)	15.0	20.0		15.0	20.0		15.0	45.0		15.0	45.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		13.0			13.0			14.0			12.0	
Pedestrian Calls (#/hr)		0			9			2			0	
v/c Ratio	0.22	0.62		0.44	0.38		0.25	0.83		0.14	0.56	
Control Delay	26.4	55.0		29.4	33.9		12.5	33.4		12.8	24.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	26.4	55.0		29.4	33.9		12.5	33.4		12.8	24.9	
Queue Length 50th (ft)	28	71		74	61		27	388		8	210	
Queue Length 95th (ft)	58	135		127	122		64	#746		25	385	
Internal Link Dist (ft)		334			1761			51			496	
Turn Bay Length (ft)	50			150			460			110		
Base Capacity (vph)	427	336		400	388		525	866		367	917	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.15	0.35		0.39	0.33		0.20	0.83		0.08	0.51	

Intersection Summary

Area Type: Other
Cycle Length: 119
Actuated Cycle Length: 93.3
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: U.S. Route 9W & W. Main Street/E. Main Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	51	59	143	78	41	98	506	163	29	403	36
Future Volume (veh/h)	58	51	59	143	78	41	98	506	163	29	403	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1949	1784	1784	1847	1847	1847	1791	1761	1761	1754	1949	1949
Adj Flow Rate, veh/h	62	55	63	154	84	44	105	544	175	31	433	39
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
Percent Heavy Veh, %	2	13	13	2	2	2	1	3	3	15	2	2
Cap, veh/h	296	75	86	307	168	88	413	587	189	194	783	70
Arrive On Green	0.05	0.10	0.10	0.10	0.15	0.15	0.05	0.46	0.46	0.04	0.44	0.44
Sat Flow, veh/h	1856	758	869	1759	1141	598	1706	1277	411	1670	1761	159
Grp Volume(v), veh/h	62	0	118	154	0	128	105	0	719	31	0	472
Grp Sat Flow(s),veh/h/ln	1856	0	1627	1759	0	1739	1706	0	1687	1670	0	1920
Q Serve(g_s), s	2.3	0.0	5.6	6.1	0.0	5.4	2.6	0.0	32.0	0.8	0.0	14.5
Cycle Q Clear(g_c), s	2.3	0.0	5.6	6.1	0.0	5.4	2.6	0.0	32.0	0.8	0.0	14.5
Prop In Lane	1.00		0.53	1.00		0.34	1.00		0.24	1.00		0.08
Lane Grp Cap(c), veh/h	296	0	161	307	0	256	413	0	776	194	0	853
V/C Ratio(X)	0.21	0.00	0.73	0.50	0.00	0.50	0.25	0.00	0.93	0.16	0.00	0.55
Avail Cap(c_a), veh/h	543	0	407	456	0	435	643	0	951	444	0	1082
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.6	0.0	35.0	28.1	0.0	31.4	12.2	0.0	20.3	17.1	0.0	16.4
Incr Delay (d2), s/veh	0.1	0.0	2.4	0.5	0.0	0.6	0.1	0.0	11.8	0.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	2.3	2.5	0.0	2.3	0.9	0.0	14.0	0.3	0.0	5.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.7	0.0	37.4	28.6	0.0	31.9	12.3	0.0	32.1	17.3	0.0	16.6
LnGrp LOS	C	A	D	C	A	C	B	A	C	B	A	B
Approach Vol, veh/h		180			282			824			503	
Approach Delay, s/veh		34.7			30.1			29.6			16.6	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	41.5	14.2	13.9	9.0	42.8	10.4	17.8
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	15.0	45.0	15.0	20.0	15.0	45.0	15.0	20.0
Max Q Clear Time (g_c+I1), s	4.6	16.5	8.1	7.6	2.8	34.0	4.3	7.4
Green Ext Time (p_c), s	0.1	2.0	0.1	0.3	0.0	2.7	0.0	0.3

Intersection Summary	
HCM 6th Ctrl Delay	26.5
HCM 6th LOS	C

Lane Group	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Volume (vph)	761	3	0	605	0	6
Future Volume (vph)	761	3	0	605	0	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	13	13
Grade (%)	4%			-2%	9%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						0.865
Flt Protected						
Satd. Flow (prot)	1808	0	0	1881	0	1590
Flt Permitted						
Satd. Flow (perm)	1808	0	0	1881	0	1590
Link Speed (mph)	30			30	30	
Link Distance (ft)	694			131	271	
Travel Time (s)	15.8			3.0	6.2	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	3%	2%	0%	2%	0%	2%
Adj. Flow (vph)	818	3	0	651	0	6
Shared Lane Traffic (%)						
Lane Group Flow (vph)	821	0	0	651	0	6
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.03	1.03	0.99	0.99	1.02	1.02
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.1

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Vol, veh/h	761	3	0	605	0	6
Future Vol, veh/h	761	3	0	605	0	6
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, %	4	-	-	-2	9	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	3	2	0	2	0	2
Mvmt Flow	818	3	0	651	0	6

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	820
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.12
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	305
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	305
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	NB	SB	NW
HCM Control Delay, s	0	0	17.1
HCM LOS			C

Minor Lane/Major Mvmt	NBT	NBR	NWLn1	SBT
Capacity (veh/h)	-	-	305	-
HCM Lane V/C Ratio	-	-	0.021	-
HCM Control Delay (s)	-	-	17.1	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0.1	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	57	96	440	108	51	342
Future Volume (vph)	57	96	440	108	51	342
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	13	12	12	13
Grade (%)	3%		-4%			-3%
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.915		0.973			
Flt Protected	0.982					0.994
Satd. Flow (prot)	1669	0	1903	0	0	1930
Flt Permitted	0.982					0.994
Satd. Flow (perm)	1669	0	1903	0	0	1930
Link Speed (mph)	30		30			30
Link Distance (ft)	291		332			435
Travel Time (s)	6.6		7.5			9.9
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	0%	3%	0%	0%	3%
Adj. Flow (vph)	61	103	473	116	55	368
Shared Lane Traffic (%)						
Lane Group Flow (vph)	164	0	589	0	0	423
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.02	1.02	0.93	0.97	0.98	0.94
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	57	96	440	108	51	342
Future Vol, veh/h	57	96	440	108	51	342
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, %	3	-	-4	-	-	-3
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	0	3	0	0	3
Mvmt Flow	61	103	473	116	55	368

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1009	531	0	0	589	0
Stage 1	531	-	-	-	-	-
Stage 2	478	-	-	-	-	-
Critical Hdwy	7.02	6.5	-	-	4.1	-
Critical Hdwy Stg 1	6.02	-	-	-	-	-
Critical Hdwy Stg 2	6.02	-	-	-	-	-
Follow-up Hdwy	3.518	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	225	528	-	-	996	-
Stage 1	540	-	-	-	-	-
Stage 2	576	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	209	528	-	-	996	-
Mov Cap-2 Maneuver	209	-	-	-	-	-
Stage 1	540	-	-	-	-	-
Stage 2	536	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	25.5	0	1.1
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	337	996	-
HCM Lane V/C Ratio	-	-	0.488	0.055	-
HCM Control Delay (s)	-	-	25.5	8.8	0
HCM Lane LOS	-	-	D	A	A
HCM 95th %tile Q(veh)	-	-	2.6	0.2	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	103	7	33	100	11	10	22	32	7	11	21
Future Volume (vph)	27	103	7	33	100	11	10	22	32	7	11	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	10	12	12	12	12	12	13	12	12	10	12
Grade (%)		0%			2%			3%			6%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.994			0.989			0.932			0.928	
Flt Protected		0.990			0.989			0.992			0.992	
Satd. Flow (prot)	0	1592	0	0	1703	0	0	1544	0	0	1481	0
Flt Permitted		0.990			0.989			0.992			0.992	
Satd. Flow (perm)	0	1592	0	0	1703	0	0	1544	0	0	1481	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		848			639			544			490	
Travel Time (s)		19.3			14.5			12.4			11.1	
Confl. Peds. (#/hr)	1		2	1			2		1			1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	4%	9%	43%	17%	6%	0%	10%	5%	25%	25%	0%	5%
Adj. Flow (vph)	29	110	7	35	106	12	11	23	34	7	12	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	146	0	0	153	0	0	68	0	0	41	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.09	1.00	1.01	1.01	1.01	1.02	0.98	1.02	1.04	1.14	1.04
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	8.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	27	103	7	33	100	11	10	22	32	7	11	21
Future Vol, veh/h	27	103	7	33	100	11	10	22	32	7	11	21
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	4	9	43	17	6	0	10	5	25	25	0	5
Mvmt Flow	29	110	7	35	106	12	11	23	34	7	12	22
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	8.7	8	8.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	16%	20%	23%	18%
Vol Thru, %	34%	75%	69%	28%
Vol Right, %	50%	5%	8%	54%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	64	137	144	39
LT Vol	10	27	33	7
Through Vol	22	103	100	11
RT Vol	32	7	11	21
Lane Flow Rate	68	146	153	41
Geometry Grp	1	1	1	1
Degree of Util (X)	0.086	0.179	0.196	0.055
Departure Headway (Hd)	4.547	4.41	4.608	4.815
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	789	816	781	745
Service Time	2.568	2.426	2.624	2.838
HCM Lane V/C Ratio	0.086	0.179	0.196	0.055
HCM Control Delay	8	8.4	8.7	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.6	0.7	0.2

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	102	41	64	44	35	89
Future Volume (vph)	102	41	64	44	35	89
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	12	12	12	11	12
Grade (%)		-3%	0%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.945		0.903	
Flt Protected		0.966			0.986	
Satd. Flow (prot)	0	1826	1760	0	1603	0
Flt Permitted		0.966			0.986	
Satd. Flow (perm)	0	1826	1760	0	1603	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		639	571		286	
Travel Time (s)		14.5	13.0		6.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	111	45	70	48	38	97
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	156	118	0	135	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		11	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.12	0.98	1.00	1.00	1.04	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	5.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	102	41	64	44	35	89
Future Vol, veh/h	102	41	64	44	35	89
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, %	-	-3	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	111	45	70	48	38	97

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	118	0	-	0	361	94
Stage 1	-	-	-	-	94	-
Stage 2	-	-	-	-	267	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1470	-	-	-	638	963
Stage 1	-	-	-	-	930	-
Stage 2	-	-	-	-	778	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1470	-	-	-	589	963
Mov Cap-2 Maneuver	-	-	-	-	589	-
Stage 1	-	-	-	-	858	-
Stage 2	-	-	-	-	778	-

Approach	EB	WB	SB
HCM Control Delay, s	5.5	0	10.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1470	-	-	-	817
HCM Lane V/C Ratio	0.075	-	-	-	0.165
HCM Control Delay (s)	7.6	0	-	-	10.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	22	118	19	6	115	77	11	3	7	54	1	26
Future Volume (vph)	22	118	19	6	115	77	11	3	7	54	1	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	12	12	12	12	11
Grade (%)		-6%			1%			3%			3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.984			0.947			0.953			0.957	
Flt Protected		0.993			0.999			0.975			0.968	
Satd. Flow (prot)	0	1912	0	0	1719	0	0	1739	0	0	1734	0
Flt Permitted		0.993			0.999			0.975			0.968	
Satd. Flow (perm)	0	1912	0	0	1719	0	0	1739	0	0	1734	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		504			567			216			341	
Travel Time (s)		11.5			12.9			4.9			7.8	
Confl. Peds. (#/hr)			1	1					7	7		
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%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	24	127	20	6	124	83	12	3	8	58	1	28
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	171	0	0	213	0	0	23	0	0	87	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.96	0.96	0.96	1.01	1.05	1.01	1.02	1.02	1.02	1.02	1.02	1.07
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	22	118	19	6	115	77	11	3	7	54	1	26
Future Vol, veh/h	22	118	19	6	115	77	11	3	7	54	1	26
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	7	7	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-6	-	-	1	-	-	3	-	-	3	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	24	127	20	6	124	83	12	3	8	58	1	28

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	207	0	0	148	0	0	364	405	145	376	374	166
Stage 1	-	-	-	-	-	-	186	186	-	178	178	-
Stage 2	-	-	-	-	-	-	178	219	-	198	196	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.7	7.1	6.5	7.7	7.1	6.5
Critical Hdwy Stg 1	-	-	-	-	-	-	6.7	6.1	-	6.7	6.1	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.7	6.1	-	6.7	6.1	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1376	-	-	1446	-	-	561	503	897	549	526	871
Stage 1	-	-	-	-	-	-	795	727	-	804	734	-
Stage 2	-	-	-	-	-	-	804	700	-	782	719	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1376	-	-	1445	-	-	532	490	891	529	513	871
Mov Cap-2 Maneuver	-	-	-	-	-	-	532	490	-	529	513	-
Stage 1	-	-	-	-	-	-	779	712	-	789	730	-
Stage 2	-	-	-	-	-	-	773	697	-	753	705	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.1	0.2	11.2	10.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	606	1376	-	-	1445	-	-	779
HCM Lane V/C Ratio	0.037	0.017	-	-	0.004	-	-	0.112
HCM Control Delay (s)	11.2	7.7	0	-	7.5	0	-	10.2
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.4

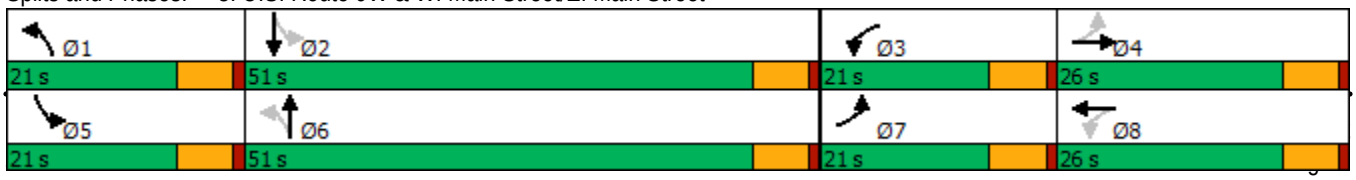
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	53	66	155	52	40	83	491	188	22	363	42
Future Volume (vph)	70	53	66	155	52	40	83	491	188	22	363	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	10	12	11	11	12	12	12	12	12	12	12
Grade (%)		-2%			2%			4%			-2%	
Storage Length (ft)	50		0	150		0	460		0	110		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	86			86			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.98				0.98			0.99				
Frt		0.917			0.934			0.958			0.984	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1728	1615	0	1710	1556	0	1769	1729	0	1688	1807	0
Flt Permitted	0.694			0.487			0.352			0.170		
Satd. Flow (perm)	1232	1615	0	877	1556	0	655	1729	0	302	1807	0
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					28			19			6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		414			1841			131			576	
Travel Time (s)		9.4			41.8			3.0			13.1	
Confl. Peds. (#/hr)	9					9			2	2		
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	0%	3%	1%	3%	12%	0%	3%	1%	8%	5%	0%
Adj. Flow (vph)	74	56	70	165	55	43	88	522	200	23	386	45
Shared Lane Traffic (%)												
Lane Group Flow (vph)	74	126	0	165	98	0	88	722	0	23	431	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.03	1.08	0.99	1.06	1.06	1.01	1.03	1.03	1.03	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases	4			8			6			2		
Detector Phase	7	4		3	8		1	6		5	2	
Switch Phase												
Minimum Initial (s)	3.0	5.0		3.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	9.0	11.0		9.0	11.0		9.0	16.0		9.0	16.0	
Total Split (s)	21.0	26.0		21.0	26.0		21.0	51.0		21.0	51.0	
Total Split (%)	17.6%	21.8%		17.6%	21.8%		17.6%	42.9%		17.6%	42.9%	
Maximum Green (s)	15.0	20.0		15.0	20.0		15.0	45.0		15.0	45.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		13.0			13.0			14.0			12.0	
Pedestrian Calls (#/hr)		0			9			2			0	
v/c Ratio	0.25	0.62		0.46	0.30		0.20	0.82		0.10	0.54	
Control Delay	25.6	52.8		28.4	28.3		12.2	30.9		12.3	24.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	25.6	52.8		28.4	28.3		12.2	30.9		12.3	24.3	
Queue Length 50th (ft)	27	64		65	33		22	279		5	178	
Queue Length 95th (ft)	67	141		134	89		54	#741		20	340	
Internal Link Dist (ft)		334			1761			51			496	
Turn Bay Length (ft)	50			150			460			110		
Base Capacity (vph)	440	362		413	378		548	883		399	916	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.17	0.35		0.40	0.26		0.16	0.82		0.06	0.47	

Intersection Summary

Area Type: Other
Cycle Length: 119
Actuated Cycle Length: 90.7
Natural Cycle: 70
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: U.S. Route 9W & W. Main Street/E. Main Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	53	66	155	52	40	83	491	188	22	363	42
Future Volume (veh/h)	70	53	66	155	52	40	83	491	188	22	363	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.96	0.98		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1949	1979	1979	1862	1832	1832	1806	1761	1761	1859	1904	1904
Adj Flow Rate, veh/h	74	56	70	165	55	43	88	522	200	23	386	45
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	0	0	1	3	3	0	3	3	8	5	5
Cap, veh/h	344	95	119	335	158	124	424	557	213	182	751	88
Arrive On Green	0.06	0.12	0.12	0.10	0.17	0.17	0.05	0.46	0.46	0.03	0.45	0.45
Sat Flow, veh/h	1856	782	977	1773	940	735	1720	1212	464	1770	1673	195
Grp Volume(v), veh/h	74	0	126	165	0	98	88	0	722	23	0	431
Grp Sat Flow(s),veh/h/ln	1856	0	1759	1773	0	1676	1720	0	1677	1770	0	1868
Q Serve(g_s), s	2.9	0.0	5.8	6.8	0.0	4.4	2.3	0.0	35.1	0.6	0.0	14.2
Cycle Q Clear(g_c), s	2.9	0.0	5.8	6.8	0.0	4.4	2.3	0.0	35.1	0.6	0.0	14.2
Prop In Lane	1.00		0.56	1.00		0.44	1.00		0.28	1.00		0.10
Lane Grp Cap(c), veh/h	344	0	214	335	0	282	424	0	770	182	0	839
V/C Ratio(X)	0.22	0.00	0.59	0.49	0.00	0.35	0.21	0.00	0.94	0.13	0.00	0.51
Avail Cap(c_a), veh/h	561	0	410	461	0	391	647	0	880	430	0	980
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.0	0.0	35.6	28.5	0.0	31.5	12.9	0.0	22.0	18.6	0.0	16.9
Incr Delay (d2), s/veh	0.1	0.0	1.0	0.4	0.0	0.3	0.1	0.0	15.3	0.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	2.5	2.9	0.0	1.8	0.9	0.0	15.9	0.2	0.0	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.1	0.0	36.6	29.0	0.0	31.8	12.9	0.0	37.3	18.7	0.0	17.1
LnGrp LOS	C	A	D	C	A	C	B	A	D	B	A	B
Approach Vol, veh/h		200			263			810			454	
Approach Delay, s/veh		34.2			30.0			34.7			17.2	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.9	44.5	14.9	16.5	9.0	45.4	11.0	20.4
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	15.0	45.0	15.0	20.0	15.0	45.0	15.0	20.0
Max Q Clear Time (g_c+I1), s	4.3	16.2	8.8	7.8	2.6	37.1	4.9	6.4
Green Ext Time (p_c), s	0.1	1.8	0.1	0.3	0.0	2.3	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	29.3
HCM 6th LOS	C

Lane Group	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Volume (vph)	753	7	0	584	0	9
Future Volume (vph)	753	7	0	584	0	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	13	13
Grade (%)	4%			-2%	9%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.999					0.865
Flt Protected						
Satd. Flow (prot)	1824	0	0	1845	0	1590
Flt Permitted						
Satd. Flow (perm)	1824	0	0	1845	0	1590
Link Speed (mph)	30			30	30	
Link Distance (ft)	694			131	271	
Travel Time (s)	15.8			3.0	6.2	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	2%	0%	4%	0%	2%
Adj. Flow (vph)	801	7	0	621	0	10
Shared Lane Traffic (%)						
Lane Group Flow (vph)	808	0	0	621	0	10
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.03	1.03	0.99	0.99	1.02	1.02
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.1

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Vol, veh/h	753	7	0	584	0	9
Future Vol, veh/h	753	7	0	584	0	9
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, %	4	-	-	-2	9	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	0	4	0	2
Mvmt Flow	801	7	0	621	0	10

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	805
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.12
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	313
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	313
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	NB	SB	NW
HCM Control Delay, s	0	0	16.9
HCM LOS			C

Minor Lane/Major Mvmt	NBT	NBR	NWLn1	SBT
Capacity (veh/h)	-	-	313	-
HCM Lane V/C Ratio	-	-	0.031	-
HCM Control Delay (s)	-	-	16.9	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0.1	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	75	80	431	108	49	321
Future Volume (vph)	75	80	431	108	49	321
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	13	12	12	13
Grade (%)	3%		-4%			-3%
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.930		0.973			
Flt Protected	0.976					0.993
Satd. Flow (prot)	1642	0	1877	0	0	1869
Flt Permitted	0.976					0.993
Satd. Flow (perm)	1642	0	1877	0	0	1869
Link Speed (mph)	30		30			30
Link Distance (ft)	291		332			435
Travel Time (s)	6.6		7.5			9.9
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	5%	2%	4%	3%	5%	6%
Adj. Flow (vph)	78	83	449	113	51	334
Shared Lane Traffic (%)						
Lane Group Flow (vph)	161	0	562	0	0	385
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.02	1.02	0.93	0.97	0.98	0.94
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	4.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	75	80	431	108	49	321
Future Vol, veh/h	75	80	431	108	49	321
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, %	3	-	-4	-	-	-3
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	5	2	4	3	5	6
Mvmt Flow	78	83	449	113	51	334

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	942	506	0	0	562	0
Stage 1	506	-	-	-	-	-
Stage 2	436	-	-	-	-	-
Critical Hdwy	7.05	6.52	-	-	4.15	-
Critical Hdwy Stg 1	6.05	-	-	-	-	-
Critical Hdwy Stg 2	6.05	-	-	-	-	-
Follow-up Hdwy	3.545	3.318	-	-	2.245	-
Pot Cap-1 Maneuver	246	543	-	-	995	-
Stage 1	551	-	-	-	-	-
Stage 2	600	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	231	543	-	-	995	-
Mov Cap-2 Maneuver	231	-	-	-	-	-
Stage 1	551	-	-	-	-	-
Stage 2	562	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	26.2	0	1.2
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	328	995	-
HCM Lane V/C Ratio	-	-	0.492	0.051	-
HCM Control Delay (s)	-	-	26.2	8.8	0
HCM Lane LOS	-	-	D	A	A
HCM 95th %tile Q(veh)	-	-	2.6	0.2	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	106	7	34	107	12	14	13	31	6	7	17
Future Volume (vph)	27	106	7	34	107	12	14	13	31	6	7	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	10	12	12	12	12	12	13	12	12	10	12
Grade (%)		0%			2%			3%			6%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.993			0.990			0.928			0.925	
Flt Protected		0.990			0.989			0.988			0.990	
Satd. Flow (prot)	0	1731	0	0	1829	0	0	1773	0	0	1524	0
Flt Permitted		0.990			0.989			0.988			0.990	
Satd. Flow (perm)	0	1731	0	0	1829	0	0	1773	0	0	1524	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		848			639			544			490	
Travel Time (s)		19.3			14.5			12.4			11.1	
Confl. Peds. (#/hr)			3	3			3		3			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	14%	0%	1%	0%	0%	0%	0%	0%	0%	6%
Adj. Flow (vph)	30	118	8	38	119	13	16	14	34	7	8	19
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	156	0	0	170	0	0	64	0	0	34	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.09	1.00	1.01	1.01	1.01	1.02	0.98	1.02	1.04	1.14	1.04
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

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	27	106	7	34	107	12	14	13	31	6	7	17
Future Vol, veh/h	27	106	7	34	107	12	14	13	31	6	7	17
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	0	0	14	0	1	0	0	0	0	0	0	6
Mvmt Flow	30	118	8	38	119	13	16	14	34	7	8	19
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	8.4	7.8	7.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	24%	19%	22%	20%
Vol Thru, %	22%	76%	70%	23%
Vol Right, %	53%	5%	8%	57%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	58	140	153	30
LT Vol	14	27	34	6
Through Vol	13	106	107	7
RT Vol	31	7	12	17
Lane Flow Rate	64	156	170	33
Geometry Grp	1	1	1	1
Degree of Util (X)	0.079	0.187	0.203	0.041
Departure Headway (Hd)	4.386	4.317	4.292	4.395
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	818	835	840	815
Service Time	2.406	2.322	2.296	2.418
HCM Lane V/C Ratio	0.078	0.187	0.202	0.04
HCM Control Delay	7.8	8.3	8.4	7.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.7	0.8	0.1

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	106	47	57	36	34	85
Future Volume (vph)	106	47	57	36	34	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	12	12	12	11	12
Grade (%)		-3%	0%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.948		0.904	
Flt Protected		0.967			0.986	
Satd. Flow (prot)	0	1828	1766	0	1605	0
Flt Permitted		0.967			0.986	
Satd. Flow (perm)	0	1828	1766	0	1605	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		639	571		286	
Travel Time (s)		14.5	13.0		6.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	115	51	62	39	37	92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	166	101	0	129	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		11	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.12	0.98	1.00	1.00	1.04	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	5.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	106	47	57	36	34	85
Future Vol, veh/h	106	47	57	36	34	85
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, %	-	-3	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	115	51	62	39	37	92

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	101	0	-	0	363	82
Stage 1	-	-	-	-	82	-
Stage 2	-	-	-	-	281	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1491	-	-	-	636	978
Stage 1	-	-	-	-	941	-
Stage 2	-	-	-	-	767	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1491	-	-	-	586	978
Mov Cap-2 Maneuver	-	-	-	-	586	-
Stage 1	-	-	-	-	867	-
Stage 2	-	-	-	-	767	-

Approach	EB	WB	SB
HCM Control Delay, s	5.3	0	10.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1491	-	-	-	821
HCM Lane V/C Ratio	0.077	-	-	-	0.158
HCM Control Delay (s)	7.6	0	-	-	10.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.3	-	-	-	0.6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	130	14	8	65	61	12	1	2	56	3	35
Future Volume (vph)	23	130	14	8	65	61	12	1	2	56	3	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	12	12	12	12	11
Grade (%)		-6%			1%			3%			3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.989			0.939			0.984			0.949	
Flt Protected		0.993			0.997			0.960			0.971	
Satd. Flow (prot)	0	1922	0	0	1711	0	0	1768	0	0	1725	0
Flt Permitted		0.993			0.997			0.960			0.971	
Satd. Flow (perm)	0	1922	0	0	1711	0	0	1768	0	0	1725	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		504			567			216			341	
Travel Time (s)		11.5			12.9			4.9			7.8	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	27	151	16	9	76	71	14	1	2	65	3	41
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	194	0	0	156	0	0	17	0	0	109	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.96	0.96	0.96	1.01	1.05	1.01	1.02	1.02	1.02	1.02	1.02	1.07
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	23	130	14	8	65	61	12	1	2	56	3	35
Future Vol, veh/h	23	130	14	8	65	61	12	1	2	56	3	35
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-6	-	-	1	-	-	3	-	-	3	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	27	151	16	9	76	71	14	1	2	65	3	41

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	147	0	0	167	0	0	344	378	159	345	351	112
Stage 1	-	-	-	-	-	-	213	213	-	130	130	-
Stage 2	-	-	-	-	-	-	131	165	-	215	221	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.7	7.1	6.5	7.7	7.1	6.5
Critical Hdwy Stg 1	-	-	-	-	-	-	6.7	6.1	-	6.7	6.1	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.7	6.1	-	6.7	6.1	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1447	-	-	1423	-	-	580	523	880	579	544	938
Stage 1	-	-	-	-	-	-	766	704	-	860	775	-
Stage 2	-	-	-	-	-	-	858	745	-	764	698	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1447	-	-	1423	-	-	541	508	880	564	529	938
Mov Cap-2 Maneuver	-	-	-	-	-	-	541	508	-	564	529	-
Stage 1	-	-	-	-	-	-	750	689	-	842	770	-
Stage 2	-	-	-	-	-	-	811	740	-	745	683	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1	0.5	11.5	9.6
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	568	1447	-	-	1423	-	-	896
HCM Lane V/C Ratio	0.031	0.018	-	-	0.007	-	-	0.122
HCM Control Delay (s)	11.5	7.5	0	-	7.5	0	-	9.6
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.4

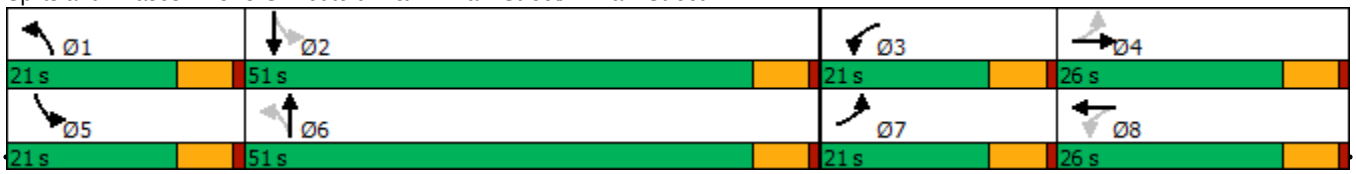
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	85	71	149	40	10	78	435	213	26	360	29
Future Volume (vph)	44	85	71	149	40	10	78	435	213	26	360	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	10	12	11	11	12	12	12	12	12	12	12
Grade (%)		-2%			2%			4%			-2%	
Storage Length (ft)	50		0	150		0	460		0	110		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	86			86			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.932			0.969			0.951			0.989	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1762	1669	0	1727	1762	0	1769	1747	0	1823	1863	0
Flt Permitted	0.722			0.401			0.360			0.151		
Satd. Flow (perm)	1339	1669	0	729	1762	0	670	1747	0	290	1863	0
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					9			24			4	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		414			1841			131			576	
Travel Time (s)		9.4			41.8			3.0			13.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	2%	0%
Adj. Flow (vph)	48	92	77	162	43	11	85	473	232	28	391	32
Shared Lane Traffic (%)												
Lane Group Flow (vph)	48	169	0	162	54	0	85	705	0	28	423	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.03	1.08	0.99	1.06	1.06	1.01	1.03	1.03	1.03	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases	4			8			6			2		
Detector Phase	7	4		3	8		1	6		5	2	
Switch Phase												
Minimum Initial (s)	3.0	5.0		3.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	9.0	11.0		9.0	11.0		9.0	16.0		9.0	16.0	
Total Split (s)	21.0	26.0		21.0	26.0		21.0	51.0		21.0	51.0	
Total Split (%)	17.6%	21.8%		17.6%	21.8%		17.6%	42.9%		17.6%	42.9%	
Maximum Green (s)	15.0	20.0		15.0	20.0		15.0	45.0		15.0	45.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		13.0			13.0			14.0			12.0	
Pedestrian Calls (#/hr)		0			9			2			0	
v/c Ratio	0.15	0.70		0.47	0.12		0.20	0.83		0.12	0.51	
Control Delay	24.9	56.5		29.1	28.7		12.9	34.0		13.2	24.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	24.9	56.5		29.1	28.7		12.9	34.0		13.2	24.5	
Queue Length 50th (ft)	21	104		78	24		24	391		8	190	
Queue Length 95th (ft)	48	183		131	59		55	#729		24	339	
Internal Link Dist (ft)		334			1761			51			496	
Turn Bay Length (ft)	50			150			460			110		
Base Capacity (vph)	467	356		395	443		543	851		404	897	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.10	0.47		0.41	0.12		0.16	0.83		0.07	0.47	

Intersection Summary

Area Type: Other
Cycle Length: 119
Actuated Cycle Length: 95.5
Natural Cycle: 70
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: U.S. Route 9W & W. Main Street/E. Main Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	85	71	149	40	10	78	435	213	26	360	29
Future Volume (veh/h)	44	85	71	149	40	10	78	435	213	26	360	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1979	1979	1979	1876	1876	1876	1806	1776	1776	1979	1949	1949
Adj Flow Rate, veh/h	48	92	77	162	43	11	85	473	232	28	391	32
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	2	2	0	2	2
Cap, veh/h	344	118	99	305	252	64	431	509	250	199	790	65
Arrive On Green	0.05	0.12	0.12	0.10	0.17	0.17	0.04	0.45	0.45	0.04	0.44	0.44
Sat Flow, veh/h	1884	995	833	1787	1441	369	1720	1125	552	1884	1777	145
Grp Volume(v), veh/h	48	0	169	162	0	54	85	0	705	28	0	423
Grp Sat Flow(s),veh/h/ln	1884	0	1829	1787	0	1810	1720	0	1677	1884	0	1922
Q Serve(g_s), s	1.8	0.0	7.4	6.4	0.0	2.1	2.2	0.0	32.8	0.6	0.0	13.0
Cycle Q Clear(g_c), s	1.8	0.0	7.4	6.4	0.0	2.1	2.2	0.0	32.8	0.6	0.0	13.0
Prop In Lane	1.00		0.46	1.00		0.20	1.00		0.33	1.00		0.08
Lane Grp Cap(c), veh/h	344	0	217	305	0	316	431	0	759	199	0	855
V/C Ratio(X)	0.14	0.00	0.78	0.53	0.00	0.17	0.20	0.00	0.93	0.14	0.00	0.49
Avail Cap(c_a), veh/h	598	0	442	447	0	438	667	0	913	472	0	1046
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.6	0.0	35.4	27.5	0.0	29.0	12.5	0.0	21.4	17.8	0.0	16.4
Incr Delay (d2), s/veh	0.1	0.0	2.3	0.5	0.0	0.1	0.1	0.0	12.9	0.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	3.4	2.7	0.0	0.9	0.8	0.0	14.5	0.3	0.0	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.6	0.0	37.7	28.0	0.0	29.1	12.6	0.0	34.3	17.9	0.0	16.5
LnGrp LOS	C	A	D	C	A	C	B	A	C	B	A	B
Approach Vol, veh/h		217			216			790			451	
Approach Delay, s/veh		35.9			28.3			31.9			16.6	
Approach LOS		D			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.7	42.8	14.5	15.8	9.0	43.4	9.8	20.4
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	15.0	45.0	15.0	20.0	15.0	45.0	15.0	20.0
Max Q Clear Time (g_c+I1), s	4.2	15.0	8.4	9.4	2.6	34.8	3.8	4.1
Green Ext Time (p_c), s	0.1	1.8	0.1	0.4	0.0	2.6	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	27.8
HCM 6th LOS	C

Lane Group	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Volume (vph)	718	13	0	580	0	8
Future Volume (vph)	718	13	0	580	0	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	13	13
Grade (%)	4%			-2%	9%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.998					0.865
Flt Protected						
Satd. Flow (prot)	1840	0	0	1900	0	1590
Flt Permitted						
Satd. Flow (perm)	1840	0	0	1900	0	1590
Link Speed (mph)	30			30	30	
Link Distance (ft)	694			131	271	
Travel Time (s)	15.8			3.0	6.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	2%	0%	1%	0%	2%
Adj. Flow (vph)	780	14	0	630	0	9
Shared Lane Traffic (%)						
Lane Group Flow (vph)	794	0	0	630	0	9
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.03	1.03	0.99	0.99	1.02	1.02
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.1

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Vol, veh/h	718	13	0	580	0	8
Future Vol, veh/h	718	13	0	580	0	8
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, %	4	-	-	-2	9	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	2	0	1	0	2
Mvmt Flow	780	14	0	630	0	9

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	787
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.12
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	322
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	322
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	NB	SB	NW
HCM Control Delay, s	0	0	16.5
HCM LOS			C

Minor Lane/Major Mvmt	NBT	NBR	NWLn1	SBT
Capacity (veh/h)	-	-	322	-
HCM Lane V/C Ratio	-	-	0.027	-
HCM Control Delay (s)	-	-	16.5	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0.1	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	67	64	343	96	63	287
Future Volume (vph)	67	64	343	96	63	287
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	13	12	12	13
Grade (%)	3%		-4%			-3%
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.934		0.971			
Flt Protected	0.975					0.991
Satd. Flow (prot)	1704	0	1906	0	0	1933
Flt Permitted	0.975					0.991
Satd. Flow (perm)	1704	0	1906	0	0	1933
Link Speed (mph)	30		30			30
Link Distance (ft)	291		332			435
Travel Time (s)	6.6		7.5			9.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	2%	2%	3%	2%
Adj. Flow (vph)	73	70	373	104	68	312
Shared Lane Traffic (%)						
Lane Group Flow (vph)	143	0	477	0	0	380
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.02	1.02	0.93	0.97	0.98	0.94
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	3.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	67	64	343	96	63	287
Future Vol, veh/h	67	64	343	96	63	287
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, %	3	-	-4	-	-	-3
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	2	2	3	2
Mvmt Flow	73	70	373	104	68	312

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	873	425	0	0	477	0
Stage 1	425	-	-	-	-	-
Stage 2	448	-	-	-	-	-
Critical Hdwy	7	6.5	-	-	4.13	-
Critical Hdwy Stg 1	6	-	-	-	-	-
Critical Hdwy Stg 2	6	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.227	-
Pot Cap-1 Maneuver	279	611	-	-	1080	-
Stage 1	618	-	-	-	-	-
Stage 2	601	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	258	611	-	-	1080	-
Mov Cap-2 Maneuver	258	-	-	-	-	-
Stage 1	618	-	-	-	-	-
Stage 2	555	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	21.5	0	1.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	359	1080	-
HCM Lane V/C Ratio	-	-	0.397	0.063	-
HCM Control Delay (s)	-	-	21.5	8.6	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	1.8	0.2	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	114	8	38	95	8	5	4	31	5	9	16
Future Volume (vph)	19	114	8	38	95	8	5	4	31	5	9	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	10	12	12	12	12	12	13	12	12	10	12
Grade (%)		0%			2%			3%			6%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.992			0.992			0.897			0.929	
Flt Protected		0.993			0.987			0.994			0.991	
Satd. Flow (prot)	0	1719	0	0	1842	0	0	1724	0	0	1584	0
Flt Permitted		0.993			0.987			0.994			0.991	
Satd. Flow (perm)	0	1719	0	0	1842	0	0	1724	0	0	1584	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		848			639			544			490	
Travel Time (s)		19.3			14.5			12.4			11.1	
Confl. Peds. (#/hr)	1					1				1		1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	22	130	9	43	108	9	6	5	35	6	10	18
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	161	0	0	160	0	0	46	0	0	34	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.09	1.00	1.01	1.01	1.01	1.02	0.98	1.02	1.04	1.14	1.04
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	8.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	19	114	8	38	95	8	5	4	31	5	9	16
Future Vol, veh/h	19	114	8	38	95	8	5	4	31	5	9	16
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	0	2	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	22	130	9	43	108	9	6	5	35	6	10	18
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	8.2	8.2	7.4	7.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	12%	13%	27%	17%
Vol Thru, %	10%	81%	67%	30%
Vol Right, %	78%	6%	6%	53%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	40	141	141	30
LT Vol	5	19	38	5
Through Vol	4	114	95	9
RT Vol	31	8	8	16
Lane Flow Rate	45	160	160	34
Geometry Grp	1	1	1	1
Degree of Util (X)	0.053	0.185	0.186	0.041
Departure Headway (Hd)	4.202	4.152	4.179	4.367
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	857	852	846	825
Service Time	2.203	2.238	2.265	2.369
HCM Lane V/C Ratio	0.053	0.188	0.189	0.041
HCM Control Delay	7.4	8.2	8.2	7.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.7	0.7	0.1

TOMKINS AVENUE / BEACH ROAD / HUDSON DRIVE

W/ ALL WAY STOP CONTROL

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	12	46	21	7	6	11
Future Volume (vph)	12	46	21	7	6	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	12	12	12	11	12
Grade (%)		-3%	0%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.967		0.912	
Flt Protected		0.990			0.983	
Satd. Flow (prot)	0	1808	1457	0	1400	0
Flt Permitted		0.990			0.983	
Satd. Flow (perm)	0	1808	1457	0	1400	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		639	571		286	
Travel Time (s)		14.5	13.0		6.5	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	0%	7%	30%	14%	17%	18%
Adj. Flow (vph)	14	55	25	8	7	13
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	69	33	0	20	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		11	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.12	0.98	1.00	1.00	1.04	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Stop	Stop		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	7.4
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	12	46	21	7	6	11
Future Vol, veh/h	12	46	21	7	6	11
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	0	7	30	14	17	18
Mvmt Flow	14	55	25	8	7	13
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	7.4	7.6	7.2
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	21%	0%	35%
Vol Thru, %	79%	75%	0%
Vol Right, %	0%	25%	65%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	58	28	17
LT Vol	12	0	6
Through Vol	46	21	0
RT Vol	0	7	11
Lane Flow Rate	70	34	20
Geometry Grp	1	1	1
Degree of Util (X)	0.078	0.041	0.023
Departure Headway (Hd)	4.002	4.348	4.05
Convergence, Y/N	Yes	Yes	Yes
Cap	897	824	878
Service Time	2.021	2.371	2.102
HCM Lane V/C Ratio	0.078	0.041	0.023
HCM Control Delay	7.4	7.6	7.2
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.3	0.1	0.1

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	6	46	71	3	9	7
Future Volume (vph)	6	46	71	3	9	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	12	12	12	11	12
Grade (%)		-3%	0%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.994		0.943	
Flt Protected		0.994			0.972	
Satd. Flow (prot)	0	1705	1786	0	1683	0
Flt Permitted		0.994			0.972	
Satd. Flow (perm)	0	1705	1786	0	1683	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		639	571		286	
Travel Time (s)		14.5	13.0		6.5	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	0%	14%	6%	0%	0%	0%
Adj. Flow (vph)	7	55	85	4	11	8
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	62	89	0	19	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		11	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.12	0.98	1.00	1.00	1.04	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Stop	Stop		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	7.4
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	46	71	3	9	7
Future Vol, veh/h	6	46	71	3	9	7
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles, %	0	14	6	0	0	0
Mvmt Flow	7	55	85	4	11	8
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	7.3	7.5	7.2
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	12%	0%	56%
Vol Thru, %	88%	96%	0%
Vol Right, %	0%	4%	44%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	52	74	16
LT Vol	6	0	9
Through Vol	46	71	0
RT Vol	0	3	7
Lane Flow Rate	62	88	19
Geometry Grp	1	1	1
Degree of Util (X)	0.069	0.099	0.021
Departure Headway (Hd)	4.022	4.057	4.007
Convergence, Y/N	Yes	Yes	Yes
Cap	890	884	884
Service Time	2.048	2.077	2.073
HCM Lane V/C Ratio	0.07	0.1	0.021
HCM Control Delay	7.3	7.5	7.2
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.2	0.3	0.1

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	16	41	64	18	10	24
Future Volume (vph)	16	41	64	18	10	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	12	12	12	11	12
Grade (%)		-3%	0%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.970		0.905	
Flt Protected		0.986			0.985	
Satd. Flow (prot)	0	1864	1807	0	1605	0
Flt Permitted		0.986			0.985	
Satd. Flow (perm)	0	1864	1807	0	1605	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		639	571		286	
Travel Time (s)		14.5	13.0		6.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	17	45	70	20	11	26
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	62	90	0	37	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		11	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.12	0.98	1.00	1.00	1.04	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Stop	Stop		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	7.4
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	16	41	64	18	10	24
Future Vol, veh/h	16	41	64	18	10	24
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	45	70	20	11	26
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	7.5	7.4	7
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	28%	0%	29%
Vol Thru, %	72%	78%	0%
Vol Right, %	0%	22%	71%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	57	82	34
LT Vol	16	0	10
Through Vol	41	64	0
RT Vol	0	18	24
Lane Flow Rate	62	89	37
Geometry Grp	1	1	1
Degree of Util (X)	0.071	0.097	0.039
Departure Headway (Hd)	4.122	3.914	3.827
Convergence, Y/N	Yes	Yes	Yes
Cap	869	915	925
Service Time	2.15	1.939	1.892
HCM Lane V/C Ratio	0.071	0.097	0.04
HCM Control Delay	7.5	7.4	7
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.2	0.3	0.1

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	22	47	57	11	4	6
Future Volume (vph)	22	47	57	11	4	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	12	12	12	11	12
Grade (%)		-3%	0%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.978		0.914	
Flt Protected		0.984			0.982	
Satd. Flow (prot)	0	1860	1822	0	1616	0
Flt Permitted		0.984			0.982	
Satd. Flow (perm)	0	1860	1822	0	1616	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		639	571		286	
Travel Time (s)		14.5	13.0		6.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	24	51	62	12	4	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	75	74	0	11	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		11	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.12	0.98	1.00	1.00	1.04	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Stop	Stop		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	7.4
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	22	47	57	11	4	6
Future Vol, veh/h	22	47	57	11	4	6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	51	62	12	4	7
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	7.5	7.3	7
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	32%	0%	40%
Vol Thru, %	68%	84%	0%
Vol Right, %	0%	16%	60%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	69	68	10
LT Vol	22	0	4
Through Vol	47	57	0
RT Vol	0	11	6
Lane Flow Rate	75	74	11
Geometry Grp	1	1	1
Degree of Util (X)	0.085	0.08	0.012
Departure Headway (Hd)	4.073	3.913	3.91
Convergence, Y/N	Yes	Yes	Yes
Cap	881	917	907
Service Time	2.089	1.932	1.971
HCM Lane V/C Ratio	0.085	0.081	0.012
HCM Control Delay	7.5	7.3	7
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.3	0.3	0

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	68	46	21	23	35	83
Future Volume (vph)	68	46	21	23	35	83
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	12	12	12	11	12
Grade (%)		-3%	0%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.929		0.905	
Flt Protected		0.971			0.985	
Satd. Flow (prot)	0	1821	1452	0	1391	0
Flt Permitted		0.971			0.985	
Satd. Flow (perm)	0	1821	1452	0	1391	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		639	571		286	
Travel Time (s)		14.5	13.0		6.5	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	0%	7%	30%	14%	17%	18%
Adj. Flow (vph)	82	55	25	28	42	100
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	137	53	0	142	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		11	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.12	0.98	1.00	1.00	1.04	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Stop	Stop		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	68	46	21	23	35	83
Future Vol, veh/h	68	46	21	23	35	83
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	0	7	30	14	17	18
Mvmt Flow	82	55	25	28	42	100
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	8.3	7.9	8.1
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	60%	0%	30%
Vol Thru, %	40%	48%	0%
Vol Right, %	0%	52%	70%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	114	44	118
LT Vol	68	0	35
Through Vol	46	21	0
RT Vol	0	23	83
Lane Flow Rate	137	53	142
Geometry Grp	1	1	1
Degree of Util (X)	0.168	0.067	0.169
Departure Headway (Hd)	4.414	4.569	4.268
Convergence, Y/N	Yes	Yes	Yes
Cap	817	786	844
Service Time	2.414	2.583	2.277
HCM Lane V/C Ratio	0.168	0.067	0.168
HCM Control Delay	8.3	7.9	8.1
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.6	0.2	0.6

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	92	46	71	29	34	72
Future Volume (vph)	92	46	71	29	34	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	12	12	12	11	12
Grade (%)		-3%	0%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.961		0.908	
Flt Protected		0.968			0.984	
Satd. Flow (prot)	0	1784	1751	0	1641	0
Flt Permitted		0.968			0.984	
Satd. Flow (perm)	0	1784	1751	0	1641	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		639	571		286	
Travel Time (s)		14.5	13.0		6.5	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	0%	14%	6%	0%	0%	0%
Adj. Flow (vph)	110	55	85	35	40	86
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	165	120	0	126	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		11	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.12	0.98	1.00	1.00	1.04	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Stop	Stop		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	92	46	71	29	34	72
Future Vol, veh/h	92	46	71	29	34	72
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles, %	0	14	6	0	0	0
Mvmt Flow	110	55	85	35	40	86
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	8.6	8	7.9
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	67%	0%	32%
Vol Thru, %	33%	71%	0%
Vol Right, %	0%	29%	68%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	138	100	106
LT Vol	92	0	34
Through Vol	46	71	0
RT Vol	0	29	72
Lane Flow Rate	164	119	126
Geometry Grp	1	1	1
Degree of Util (X)	0.203	0.142	0.147
Departure Headway (Hd)	4.451	4.285	4.192
Convergence, Y/N	Yes	Yes	Yes
Cap	812	839	857
Service Time	2.451	2.299	2.209
HCM Lane V/C Ratio	0.202	0.142	0.147
HCM Control Delay	8.6	8	7.9
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.8	0.5	0.5

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	102	41	64	44	35	89
Future Volume (vph)	102	41	64	44	35	89
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	12	12	12	11	12
Grade (%)		-3%	0%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.945		0.903	
Flt Protected		0.966			0.986	
Satd. Flow (prot)	0	1826	1760	0	1603	0
Flt Permitted		0.966			0.986	
Satd. Flow (perm)	0	1826	1760	0	1603	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		639	571		286	
Travel Time (s)		14.5	13.0		6.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	111	45	70	48	38	97
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	156	118	0	135	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		11	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.12	0.98	1.00	1.00	1.04	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Stop	Stop		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	102	41	64	44	35	89
Future Vol, veh/h	102	41	64	44	35	89
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	111	45	70	48	38	97
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	8.6	7.8	8
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	71%	0%	28%
Vol Thru, %	29%	59%	0%
Vol Right, %	0%	41%	72%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	143	108	124
LT Vol	102	0	35
Through Vol	41	64	0
RT Vol	0	44	89
Lane Flow Rate	155	117	135
Geometry Grp	1	1	1
Degree of Util (X)	0.195	0.136	0.156
Departure Headway (Hd)	4.507	4.157	4.17
Convergence, Y/N	Yes	Yes	Yes
Cap	800	865	863
Service Time	2.507	2.172	2.186
HCM Lane V/C Ratio	0.194	0.135	0.156
HCM Control Delay	8.6	7.8	8
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.7	0.5	0.6

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	106	47	57	36	34	85
Future Volume (vph)	106	47	57	36	34	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	12	12	12	11	12
Grade (%)		-3%	0%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.948		0.904	
Flt Protected		0.967			0.986	
Satd. Flow (prot)	0	1828	1766	0	1605	0
Flt Permitted		0.967			0.986	
Satd. Flow (perm)	0	1828	1766	0	1605	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		639	571		286	
Travel Time (s)		14.5	13.0		6.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	115	51	62	39	37	92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	166	101	0	129	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		11	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.12	0.98	1.00	1.00	1.04	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Stop	Stop		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	8.1
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	106	47	57	36	34	85
Future Vol, veh/h	106	47	57	36	34	85
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	115	51	62	39	37	92
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	8.6	7.7	7.9
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	69%	0%	29%
Vol Thru, %	31%	61%	0%
Vol Right, %	0%	39%	71%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	153	93	119
LT Vol	106	0	34
Through Vol	47	57	0
RT Vol	0	36	85
Lane Flow Rate	166	101	129
Geometry Grp	1	1	1
Degree of Util (X)	0.202	0.117	0.15
Departure Headway (Hd)	4.379	4.165	4.162
Convergence, Y/N	Yes	Yes	Yes
Cap	807	863	865
Service Time	2.474	2.178	2.168
HCM Lane V/C Ratio	0.206	0.117	0.149
HCM Control Delay	8.6	7.7	7.9
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.8	0.4	0.5

U.S. ROUTE 9W & E/W MAIN STREET

W/ SIGNAL TIMING CHANGES

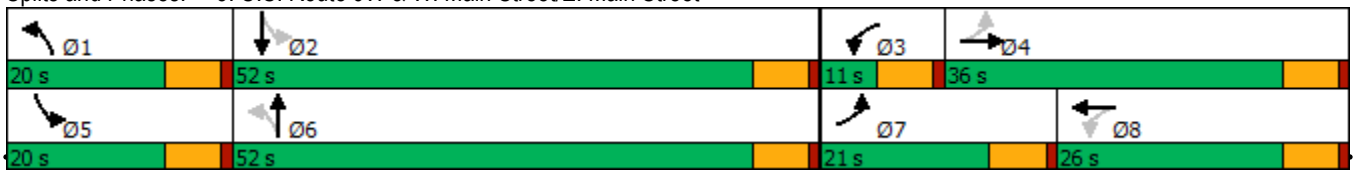
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	58	51	59	143	78	41	98	506	163	29	403	36
Future Volume (vph)	58	51	59	143	78	41	98	506	163	29	403	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	10	12	11	11	12	12	12	12	12	12	12
Grade (%)		-2%			2%			4%			-2%	
Storage Length (ft)	50		0	150		0	460		0	110		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	86			86			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.920			0.948			0.963			0.988	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1728	1538	0	1694	1662	0	1751	1745	0	1585	1862	0
Flt Permitted	0.627			0.681			0.345			0.189		
Satd. Flow (perm)	1140	1538	0	1214	1662	0	636	1745	0	315	1862	0
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					19			16			4	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		414			1841			131			576	
Travel Time (s)		9.4			41.8			3.0			13.1	
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 (%)	2%	13%	2%	2%	2%	7%	1%	3%	2%	15%	2%	0%
Adj. Flow (vph)	62	55	63	154	84	44	105	544	175	31	433	39
Shared Lane Traffic (%)												
Lane Group Flow (vph)	62	118	0	154	128	0	105	719	0	31	472	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.03	1.08	0.99	1.06	1.06	1.01	1.03	1.03	1.03	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases	4			8			6			2		
Detector Phase	7	4		3	8		1	6		5	2	
Switch Phase												
Minimum Initial (s)	3.0	5.0		3.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	9.0	11.0		9.0	11.0		9.0	16.0		9.0	16.0	
Total Split (s)	21.0	36.0		11.0	26.0		20.0	52.0		20.0	52.0	
Total Split (%)	17.6%	30.3%		9.2%	21.8%		16.8%	43.7%		16.8%	43.7%	
Maximum Green (s)	15.0	30.0		5.0	20.0		14.0	46.0		14.0	46.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		13.0			13.0			14.0			12.0	
Pedestrian Calls (#/hr)		0			9			2			0	
v/c Ratio	0.20	0.52		0.58	0.47		0.23	0.79		0.13	0.53	
Control Delay	27.2	44.5		40.1	38.7		10.5	28.2		10.7	21.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	27.2	44.5		40.1	38.7		10.5	28.2		10.7	21.6	
Queue Length 50th (ft)	28	66		75	62		23	341		7	184	
Queue Length 95th (ft)	60	121		129	124		60	#712		23	365	
Internal Link Dist (ft)		334			1761			51			496	
Turn Bay Length (ft)	50			150			460			110		
Base Capacity (vph)	409	521		264	390		553	914		386	970	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.15	0.23		0.58	0.33		0.19	0.79		0.08	0.49	

Intersection Summary

Area Type: Other
Cycle Length: 119
Actuated Cycle Length: 90.1
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: U.S. Route 9W & W. Main Street/E. Main Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	51	59	143	78	41	98	506	163	29	403	36
Future Volume (veh/h)	58	51	59	143	78	41	98	506	163	29	403	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1949	1784	1784	1847	1847	1847	1791	1761	1761	1754	1949	1949
Adj Flow Rate, veh/h	62	55	63	154	84	44	105	544	175	31	433	39
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
Percent Heavy Veh, %	2	13	13	2	2	2	1	3	3	15	2	2
Cap, veh/h	259	78	89	256	129	68	430	594	191	212	797	72
Arrive On Green	0.06	0.10	0.10	0.07	0.11	0.11	0.05	0.47	0.47	0.04	0.45	0.45
Sat Flow, veh/h	1856	758	869	1759	1141	598	1706	1277	411	1670	1761	159
Grp Volume(v), veh/h	62	0	118	154	0	128	105	0	719	31	0	472
Grp Sat Flow(s),veh/h/ln	1856	0	1627	1759	0	1739	1706	0	1687	1670	0	1920
Q Serve(g_s), s	2.2	0.0	5.2	5.0	0.0	5.2	2.4	0.0	29.4	0.7	0.0	13.2
Cycle Q Clear(g_c), s	2.2	0.0	5.2	5.0	0.0	5.2	2.4	0.0	29.4	0.7	0.0	13.2
Prop In Lane	1.00		0.53	1.00		0.34	1.00		0.24	1.00		0.08
Lane Grp Cap(c), veh/h	259	0	167	256	0	197	430	0	786	212	0	869
V/C Ratio(X)	0.24	0.00	0.71	0.60	0.00	0.65	0.24	0.00	0.92	0.15	0.00	0.54
Avail Cap(c_a), veh/h	529	0	659	256	0	470	662	0	1048	460	0	1192
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.2	0.0	32.2	29.0	0.0	31.4	11.0	0.0	18.4	15.4	0.0	14.7
Incr Delay (d2), s/veh	0.2	0.0	2.1	2.8	0.0	1.3	0.1	0.0	8.5	0.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	2.1	2.6	0.0	2.2	0.8	0.0	12.0	0.2	0.0	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.4	0.0	34.2	31.7	0.0	32.8	11.1	0.0	27.0	15.5	0.0	14.9
LnGrp LOS	C	A	C	C	A	C	B	A	C	B	A	B
Approach Vol, veh/h		180			282			824			503	
Approach Delay, s/veh		31.9			32.2			24.9			14.9	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	39.5	11.0	13.6	9.0	40.5	10.2	14.4
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	14.0	46.0	5.0	30.0	14.0	46.0	15.0	20.0
Max Q Clear Time (g_c+I1), s	4.4	15.2	7.0	7.2	2.7	31.4	4.2	7.2
Green Ext Time (p_c), s	0.1	2.1	0.0	0.4	0.0	3.1	0.0	0.3

Intersection Summary	
HCM 6th Ctrl Delay	24.0
HCM 6th LOS	C

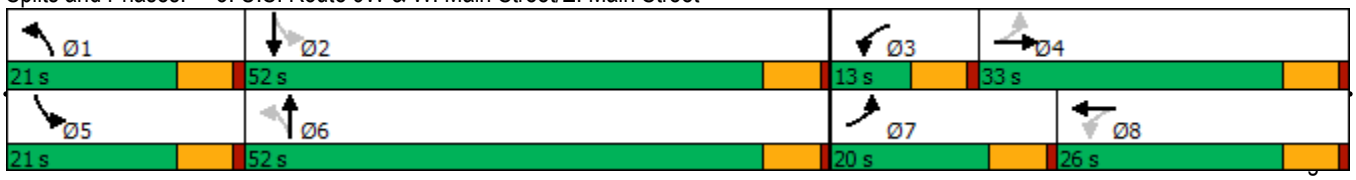
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	53	66	155	52	40	83	491	188	22	363	42
Future Volume (vph)	70	53	66	155	52	40	83	491	188	22	363	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	10	12	11	11	12	12	12	12	12	12	12
Grade (%)		-2%			2%			4%			-2%	
Storage Length (ft)	50		0	150		0	460		0	110		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	86			86			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.98				0.98			0.99				
Frt		0.917			0.934			0.958			0.984	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1728	1615	0	1710	1556	0	1769	1729	0	1688	1807	0
Flt Permitted	0.694			0.638			0.367			0.192		
Satd. Flow (perm)	1237	1615	0	1149	1556	0	683	1729	0	341	1807	0
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					28			19			6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		414			1841			131			576	
Travel Time (s)		9.4			41.8			3.0			13.1	
Confl. Peds. (#/hr)	9					9			2	2		
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	0%	3%	1%	3%	12%	0%	3%	1%	8%	5%	0%
Adj. Flow (vph)	74	56	70	165	55	43	88	522	200	23	386	45
Shared Lane Traffic (%)												
Lane Group Flow (vph)	74	126	0	165	98	0	88	722	0	23	431	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.03	1.08	0.99	1.06	1.06	1.01	1.03	1.03	1.03	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases	4			8			6			2		
Detector Phase	7	4		3	8		1	6		5	2	
Switch Phase												
Minimum Initial (s)	3.0	5.0		3.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	9.0	11.0		9.0	11.0		9.0	16.0		9.0	16.0	
Total Split (s)	20.0	33.0		13.0	26.0		21.0	52.0		21.0	52.0	
Total Split (%)	16.8%	27.7%		10.9%	21.8%		17.6%	43.7%		17.6%	43.7%	
Maximum Green (s)	14.0	27.0		7.0	20.0		15.0	46.0		15.0	46.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		13.0			13.0			14.0			12.0	
Pedestrian Calls (#/hr)		0			9			2			0	
v/c Ratio	0.23	0.56		0.54	0.35		0.19	0.78		0.09	0.52	
Control Delay	26.2	46.1		34.8	31.0		10.6	27.0		10.7	21.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	26.2	46.1		34.8	31.0		10.6	27.0		10.7	21.7	
Queue Length 50th (ft)	28	62		66	33		19	248		5	163	
Queue Length 95th (ft)	68	130		136	91		52	#720		19	329	
Internal Link Dist (ft)		334			1761			51			496	
Turn Bay Length (ft)	50			150			460			110		
Base Capacity (vph)	435	499		303	378		579	920		427	955	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.17	0.25		0.54	0.26		0.15	0.78		0.05	0.45	

Intersection Summary

Area Type: Other
Cycle Length: 119
Actuated Cycle Length: 88.7
Natural Cycle: 70
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: U.S. Route 9W & W. Main Street/E. Main Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	53	66	155	52	40	83	491	188	22	363	42
Future Volume (veh/h)	70	53	66	155	52	40	83	491	188	22	363	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.96	0.98		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1949	1979	1979	1862	1832	1832	1806	1761	1761	1859	1904	1904
Adj Flow Rate, veh/h	74	56	70	165	55	43	88	522	200	23	386	45
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	0	0	1	3	3	0	3	3	8	5	5
Cap, veh/h	325	97	122	308	141	111	433	561	215	193	760	89
Arrive On Green	0.06	0.12	0.12	0.08	0.15	0.15	0.05	0.46	0.46	0.04	0.45	0.45
Sat Flow, veh/h	1856	782	977	1773	939	734	1720	1212	464	1770	1673	195
Grp Volume(v), veh/h	74	0	126	165	0	98	88	0	722	23	0	431
Grp Sat Flow(s),veh/h/ln	1856	0	1759	1773	0	1673	1720	0	1677	1770	0	1868
Q Serve(g_s), s	2.8	0.0	5.6	6.7	0.0	4.4	2.2	0.0	33.5	0.6	0.0	13.5
Cycle Q Clear(g_c), s	2.8	0.0	5.6	6.7	0.0	4.4	2.2	0.0	33.5	0.6	0.0	13.5
Prop In Lane	1.00		0.56	1.00		0.44	1.00		0.28	1.00		0.10
Lane Grp Cap(c), veh/h	325	0	219	308	0	252	433	0	776	193	0	849
V/C Ratio(X)	0.23	0.00	0.58	0.54	0.00	0.39	0.20	0.00	0.93	0.12	0.00	0.51
Avail Cap(c_a), veh/h	531	0	576	308	0	406	669	0	936	451	0	1043
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.7	0.0	34.0	28.6	0.0	31.6	12.1	0.0	20.9	17.5	0.0	15.9
Incr Delay (d2), s/veh	0.1	0.0	0.9	1.0	0.0	0.4	0.1	0.0	12.7	0.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	2.4	2.8	0.0	1.8	0.8	0.0	14.7	0.2	0.0	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.8	0.0	34.9	29.6	0.0	31.9	12.2	0.0	33.6	17.6	0.0	16.1
LnGrp LOS	C	A	C	C	A	C	B	A	C	B	A	B
Approach Vol, veh/h		200			263			810			454	
Approach Delay, s/veh		32.7			30.5			31.3			16.2	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.7	43.4	13.0	16.2	9.0	44.2	10.8	18.4
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	15.0	46.0	7.0	27.0	15.0	46.0	14.0	20.0
Max Q Clear Time (g_c+I1), s	4.2	15.5	8.7	7.6	2.6	35.5	4.8	6.4
Green Ext Time (p_c), s	0.1	1.9	0.0	0.4	0.0	2.7	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	27.3
HCM 6th LOS	C

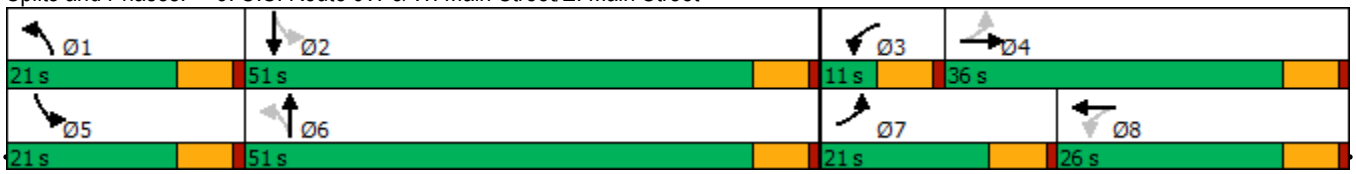
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	85	71	149	40	10	78	435	213	26	360	29
Future Volume (vph)	44	85	71	149	40	10	78	435	213	26	360	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	10	12	11	11	12	12	12	12	12	12	12
Grade (%)		-2%			2%			4%			-2%	
Storage Length (ft)	50		0	150		0	460		0	110		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	86			86			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.932			0.969			0.951			0.989	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1762	1669	0	1727	1762	0	1769	1747	0	1823	1863	0
Flt Permitted	0.722			0.538			0.381			0.182		
Satd. Flow (perm)	1339	1669	0	978	1762	0	709	1747	0	349	1863	0
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					9			24			4	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		414			1841			131			576	
Travel Time (s)		9.4			41.8			3.0			13.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	2%	0%
Adj. Flow (vph)	48	92	77	162	43	11	85	473	232	28	391	32
Shared Lane Traffic (%)												
Lane Group Flow (vph)	48	169	0	162	54	0	85	705	0	28	423	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.03	1.08	0.99	1.06	1.06	1.01	1.03	1.03	1.03	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases	4			8			6			2		
Detector Phase	7	4		3	8		1	6		5	2	
Switch Phase												
Minimum Initial (s)	3.0	5.0		3.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	9.0	11.0		9.0	11.0		9.0	16.0		9.0	16.0	
Total Split (s)	21.0	36.0		11.0	26.0		21.0	51.0		21.0	51.0	
Total Split (%)	17.6%	30.3%		9.2%	21.8%		17.6%	42.9%		17.6%	42.9%	
Maximum Green (s)	15.0	30.0		5.0	20.0		15.0	45.0		15.0	45.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		13.0			13.0			14.0			12.0	
Pedestrian Calls (#/hr)		0			9			2			0	
v/c Ratio	0.14	0.65		0.61	0.15		0.18	0.78		0.10	0.48	
Control Delay	25.8	48.2		40.4	31.2		10.2	27.7		10.3	20.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	25.8	48.2		40.4	31.2		10.2	27.7		10.3	20.5	
Queue Length 50th (ft)	21	96		77	24		19	333		6	162	
Queue Length 95th (ft)	49	164		133	60		49	#664		21	306	
Internal Link Dist (ft)		334			1761			51			496	
Turn Bay Length (ft)	50			150			460			110		
Base Capacity (vph)	448	568		266	413		593	903		454	953	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.11	0.30		0.61	0.13		0.14	0.78		0.06	0.44	

Intersection Summary

Area Type: Other
Cycle Length: 119
Actuated Cycle Length: 89.5
Natural Cycle: 70
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: U.S. Route 9W & W. Main Street/E. Main Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	85	71	149	40	10	78	435	213	26	360	29
Future Volume (veh/h)	44	85	71	149	40	10	78	435	213	26	360	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1979	1979	1979	1876	1876	1876	1806	1776	1776	1979	1949	1949
Adj Flow Rate, veh/h	48	92	77	162	43	11	85	473	232	28	391	32
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	2	2	0	2	2
Cap, veh/h	348	122	102	252	202	52	448	515	253	219	804	66
Arrive On Green	0.05	0.12	0.12	0.07	0.14	0.14	0.04	0.46	0.46	0.04	0.45	0.45
Sat Flow, veh/h	1884	995	833	1787	1441	369	1720	1125	552	1884	1777	145
Grp Volume(v), veh/h	48	0	169	162	0	54	85	0	705	28	0	423
Grp Sat Flow(s),veh/h/ln	1884	0	1829	1787	0	1810	1720	0	1677	1884	0	1922
Q Serve(g_s), s	1.7	0.0	6.8	5.0	0.0	2.0	2.0	0.0	30.0	0.6	0.0	11.8
Cycle Q Clear(g_c), s	1.7	0.0	6.8	5.0	0.0	2.0	2.0	0.0	30.0	0.6	0.0	11.8
Prop In Lane	1.00		0.46	1.00		0.20	1.00		0.33	1.00		0.08
Lane Grp Cap(c), veh/h	348	0	225	252	0	254	448	0	768	219	0	870
V/C Ratio(X)	0.14	0.00	0.75	0.64	0.00	0.21	0.19	0.00	0.92	0.13	0.00	0.49
Avail Cap(c_a), veh/h	627	0	719	252	0	474	710	0	989	515	0	1134
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.9	0.0	32.3	29.2	0.0	29.1	11.2	0.0	19.4	16.0	0.0	14.7
Incr Delay (d2), s/veh	0.1	0.0	1.9	4.2	0.0	0.2	0.1	0.0	9.8	0.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	3.0	0.7	0.0	0.9	0.7	0.0	12.6	0.2	0.0	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.0	0.0	34.3	33.5	0.0	29.2	11.2	0.0	29.2	16.1	0.0	14.8
LnGrp LOS	C	A	C	C	A	C	B	A	C	B	A	B
Approach Vol, veh/h		217			216			790			451	
Approach Delay, s/veh		32.6			32.4			27.3			14.9	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.4	40.5	11.0	15.4	9.0	40.9	9.7	16.7
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	15.0	45.0	5.0	30.0	15.0	45.0	15.0	20.0
Max Q Clear Time (g_c+I1), s	4.0	13.8	7.0	8.8	2.6	32.0	3.7	4.0
Green Ext Time (p_c), s	0.1	1.8	0.0	0.6	0.0	2.9	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	25.3
HCM 6th LOS	C

EAGLE BAY

APPENDIX E

TRAFFIC COUNT DATA

Station	FC	County Order	End Mile Point	Section Length	Road Name	Beginning Description	End Description	2017 Estimate AADT	% Trucks	YEAR	AADT	YEAR	AADT	YEAR	AADT	YEAR	AADT
										|----------		<<<	Previous Counts		>>>	----------|	
71_0095	7	14	3254	0059		RT 11	ELM ST CHAMPLAIN	2505	10.6	2015	2534	2012	2331	2009	1957	2006	2616
71_0059	7	14	3317	0063		ELM ST CHAMPLAIN	RT 972D	2336	9.6	2016	2350	2013	2290	2010	2107	2007	2323
71_0096	7	14	3368	0051		RT 972D	END RT 9 STATE SPUR 971B	705	28.2	2014	718	2011	510	2004	3057		
Route	**US9W**		**County**	**087**	**Rockland**	**Region 08**											
85_0650	14	01	0263	0263		NEW JERSEY STATE LINE	RT 340 SPUR IRVINGTON	9381	4.2	2017	9381	2013	8427	2009	7391	2006	9851
85_0651	14	01	0599	0336		RT 340 SPUR IRVINGTON	RT I87 UNDER	16033	2.3	2016	16124	2010	14044	2007	14003	2004	14616
85_0652	14	01	0706	0107		RT I87 UNDER	RT 59 NYACK	6040	3.2	2013	6180	2011	5941	2008	5771	2005	6863
85_0006	16	01	1108	0402		RT 59 NYACK	CR 80 LAKE RD	8841	5.7	2017	8234	2011	9305	2007	9222	2004	10684
85_0653	16	01	1278	0170		CR 80 LAKE RD	RT 303	7455	4.3	2014	7659	2011	7505	2008	8427	2005	8014
85_0004	14	01	1338	0060		RT 303	RT 304 HAVERSTRAW	8234	7.3	2011	16937	2011	16937	2008	18621	2005	17332
85_0825	14	01	1619	0281		RT 304 HAVERSTRAW	START 9W/202 OLAP HAVERSTRAW	17325	7.4	2009	18146	2006	20730	2003	21279	2000	19749
85_0498	14	01	1841	0222		START 9W/202 OLAP HAVERSTRAW	CR 108 MAIN ST	14047	4.2	2017	14047	2012	17343	2009	13130	2006	17241
85_0499	14	01	2087	0246		CR 108 MAIN ST	CR 118A MOTT FARM RD	8964	4.6	2015	9067	2011	9291	2006	10847	2003	9705
85_0001	14	01	2648	0561		CR 118A MOTT FARM RD	Rock/Orange Co Line	4237	13	2016	4261	2013	3481	2009	4755	2006	6326
Route	**US9W**		**County**	**071**	**Orange**	**Region 08**											
83_0500	4	02	0013	0013		Rock/Orange Co Line	END 9W/202 OLAP START 6/9W/2	4493	7.3	2009	4755	2006	6326	2003	5421	2002	4453
83_0067	4	02	0014	0001	Bear Mountain B	END 9W/202 OLAP START 6/9W/2	END 6/9W/202 OLAP START 6/20	21511	3.4	2012	15507	2015	20374	2014	19147	2012	15507
83_0654	14	02	0291	0277		END 6/9W/202 OLAP START 6/20	RT 982E OVER	17576	5.4	2009	18408	2004	23656	2001	16234	2000	18395
83_0005	14	02	0488	0197		RT 982E OVER	START 9W/218 OLAP	13012	4.6	2016	13086	2010	10438	2007	12753	2004	12077
83_0567	14	02	0558	0070		START 9W/218 OLAP	END 9W/218 OLAP	16032	3.6	2017	17219	2012	16762	2011	16576	2010	16889
83_0095	14	02	1114	0556		END 9W/218 OLAP	CR 9 ANGOLA RD	13432	3.1	2017	13432	2012	16066	2009	26123	2006	20429
83_0655	14	02	1157	0043		CR 9 ANGOLA RD	CR 107 ORRS MILL	18287	4.5	2014	18602	2011	16822	2008	16450	2005	18120
83_0656	14	02	1219	0062		CR 107 ORRS MILL	ACC WILLOW AVE	12913	4.6	2012	13289	2009	11522	2006	12039	2000	13727
83_0657	14	02	1307	0088		ACC WILLOW AVE		14780	3.3	2016	14864	2007	13822	2004	15473	2001	14874
83_0658	14	02	1485	0178			UNION AVE	23819	3.9	2011	24655	2010	21268	2007	23757	2004	25206
83_0659	14	02	1583	0098		UNION AVE	RT 94	8894	7.1	2011	9206	2007	14173	2004	10193	2000	9658
83_0660	14	02	1676	0093	ROBINSON AVE	RT 94	START 9W/32 OLAP BROADWAY	10922	6.5	2017	10922	2011	10374	2007	10535	2004	11517
83_0239	14	02	1796	0120	ROBINSON AVE	START 9W/32 OLAP BROADWAY	NEWBURGH CL / NEWBURGH TL	11612	7.9	2016	11678	2013	11453	2007	12034	2004	13455
83_0037	14	02	1805	0009		NEWBURGH CL / NEWBURGH TL	ACC RTS 84I & 52	45406	4.6	2014	46189	2011	36396	2006	28083	2001	30263
83_0039	14	02	1811	0006		ACC RTS 84I & 52	END 9W/32 OLAP	43465	4.6	2017	43465	2009	39564	2003	35471	2000	32745
83_0662	14	02	2032	0221		END 9W/32 OLAP	AFTER 0.10 MILE LESLIE RD	22299	6.7	2014	22684	2011	18817	2008	23017	2005	21835

STATION: **850499**

New York State Department of Transportation
Traffic Count Hourly Report

ROUTE #: **US 9W** ROAD NAME:
DIRECTION: Northbound FACTOR GROUP: 30
STATE DIR CODE: 6 WK OF YR: 15
DATE OF COUNT: 04/07/2015
NOTES LANE 1:

COUNT TAKEN BY: ORG CODE: TST INITIALS: JA

FROM: **CR 108 MAIN ST**
REC. SERIAL #: AE98
PLACEMENT: 360 FT N OF WALNUT ST
@ REF MARKER:
ADDL DATA:
COUNT TYPE: VEHICLES
PROCESSED BY: ORG CODE: DOT INITIALS: jh

TO: **CR 118A MOTT FARM RD**
FUNC. CLASS: 14
NHS: no
JURIS: City
CC Stn:
BATCH ID: DOT-R08v15aTST5112

COUNTY: **Rockland**
TOWN:
LION#:
BIN:
RR CROSSING:
HPMS SAMPLE:

DATE	DAY	12 TO 1	1 TO 2	2 TO 3	3 TO 4	4 TO 5	5 TO 6	6 TO 7	7 TO 8	8 TO 9	9 TO 10	10 TO 11	11 TO 12	12 TO 1	1 TO 2	2 TO 3	3 TO 4	4 TO 5	5 TO 6	6 TO 7	7 TO 8	8 TO 9	9 TO 10	10 TO 11	11 TO 12	DAILY TOTAL	DAILY HIGH COUNT	DAILY HIGH HOUR
		AM												PM														
1	W																											
2	T																											
3	F																											
4	S																											
5	S																											
6	M																											
7	T																											
8	W	23	22	13	8	19	49	124	206	222	212	198	237	297	276	325	399	453	455	360	223 246	192 209	156 156	100 82	40 54	4645	455	17
9	T	29	15	13	8	30	45	130	198	239	202	187	247	253	256	318	427	467	435	358	252	191	155	99	49	4603	467	16
10	F	39	19	17	11	25	41	115	199	234	206	204	240	286	292	331	411	474	488	344	285	230	190	136	122	4939	488	17
11	S	60	30	26	18	18	24	61	116	184	214	271	297	389	337	341	360	333	307	292	236	218	159	136	110	4537	389	12
12	S	95	47	32	19	19	23	37	84	130	188	292	354	404	352	335	319	359	281	258	252	189	146	69	49	4333	404	12
13	M	26	16	10	2	14	36	149	218	193	195	191	261	293	245	317	425	423	514	345	295	227	159	83	43	4680	514	17
14	T	18	26	12	6	24	55	153	189	226	208	173	235	252	278	312	471	431	437	363	260	236	160	94	46	4665	471	15
15	W	26	22	11	12	19	60	153	228	248	231	213	274	310	289	337	401	473	472	390	274	269	177	117	48	5054	473	16
16	T	27	12	15	11	31	53	162	224	234	221	214	251	279														
17	F																											
18	S																											
19	S																											
20	M																											
21	T																											
22	W																											
23	T																											
24	F																											
25	S																											
26	S																											
27	M																											
28	T																											
29	W																											
30	T																											
		27	**19**	**14**	**9**	**25**	**50**	**141**	**209**	**228**	**211**	**197**	**249**	**281**	**269**	**322**	**425**	**449**	**463**	**363**	**258**	**221**	**160**	**96**	**47**	**ADT 4733**		

AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6AM to Fri Noon)

DAYS Counted	HOURS Counted	WEEKDAYS Counted	WEEKDAY Hours	AVERAGE WEEKDAY High Hour	AVERAGE WEEKDAY % of day	Axle Adj. Factor	Seasonal/Weekday Adjustment Factor	ESTIMATED
10	210	7	144	463	10%	1.000	1.052	**AADT 4499**

STATION: **850499**

New York State Department of Transportation
Traffic Count Hourly Report

ROUTE #: **US 9W** ROAD NAME:
DIRECTION: Southbound FACTOR GROUP: 30
STATE DIR CODE: 7 WK OF YR: 15
DATE OF COUNT: 04/07/2015
NOTES LANE 1:

COUNT TAKEN BY: ORG CODE: TST INITIALS: JA

FROM: **CR 108 MAIN ST**
REC. SERIAL #: AE98
PLACEMENT: 360 FT N OF WALNUT ST
@ REF MARKER:
ADDL DATA:
COUNT TYPE: VEHICLES
PROCESSED BY: ORG CODE: DOT INITIALS: jh

TO: **CR 118A MOTT FARM RD**
FUNC. CLASS: 14
NHS: no
JURIS: City
CC Stn:
BATCH ID: DOT-R08v15aTST5112

COUNTY: **Rockland**
TOWN:
LION#:
BIN:
RR CROSSING:
HPMS SAMPLE:

DATE	DAY	12 TO 1	1 TO 2	2 TO 3	3 TO 4	4 TO 5	5 TO 6	6 TO 7	7 TO 8	8 TO 9	9 TO 10	10 TO 11	11 TO 12	12 TO 1	1 TO 2	2 TO 3	3 TO 4	4 TO 5	5 TO 6	6 TO 7	7 TO 8	8 TO 9	9 TO 10	10 TO 11	11 TO 12	DAILY TOTAL	DAILY HIGH COUNT	DAILY HIGH HOUR
		AM												PM														
1	W																											
2	T																											
3	F																											
4	S																											
5	S																											
6	M																											
7	T																											
8	W	26	6	6	7	28	104	270	394	397	303	235	274	285	245	279	289	338	317	258	168 199	115 140	95 91	49 38	46 37	4566	397	8
9	T	30	10	7	7	31	91	279	356	401	317	245	243	280	271	278	294	322	313	267	209	135	108	55	46	4595	401	8
10	F	28	11	11	9	23	103	245	368	397	302	254	282	283	270	275	353	344	323	304	220	163	128	89	83	4868	397	8
11	S	42	35	22	16	18	51	107	163	259	305	313	308	315	307	290	317	307	315	268	205	164	120	110	86	4443	317	15
12	S	70	39	23	15	8	33	48	96	185	252	251	324	348	367	337	343	319	311	272	233	145	100	56	44	4219	367	13
13	M	23	6	6	6	28	111	280	393	384	288	273	243	279	264	291	307	321	296	287	215	131	100	57	44	4633	393	7
14	T	23	16	12	5	30	113	282	379	428	289	219	253	259	280	283	285	345	278	243	208	155	97	61	41	4584	428	8
15	W	18	9	8	10	30	112	294	431	404	320	263	270	286	260	297	355	402	422	353	276	247	151	97	44	5359	431	7
16	T	22	14	8	7	35	120	354	482	495	389	322	344	318														
17	F																											
18	S																											
19	S																											
20	M																											
21	T																											
22	W																											
23	T																											
24	F																											
25	S																											
26	S																											
27	M																											
28	T																											
29	W																											
30	T																											
AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6AM to Fri Noon)		24	11	9	8	30	107	286	400	415	315	259	273	284	264	286	306	346	325	282	212	154	107	60	43	ADT 4806		

DAYS Counted	HOURS Counted	WEEKDAYS Counted	WEEKDAY Hours	AVERAGE WEEKDAY High Hour	AVERAGE WEEKDAY % of day	Axle Adj. Factor	Seasonal/Weekday Adjustment Factor	ESTIMATED
10	210	7	144	415	9%	1.000	1.052	**AADT 4568**

Table A

MANUAL TURNING MOMVENTS (MTM) AND AUTOMATIC TRAFFIC RECORDER (ATR) COMPARISON

Location		Typical Weekday AM		Typical Weekday PM		Summer Friday PM		Summer Saturday Mid-Day	
		MTM*	ATR Traffic Volumes**	TMTC*	ATR Traffic Volumes**	TMTC*	ATR Traffic Volumes**	TMTC*	ATR Traffic Volumes**
	Date	**10/4/2018**	9/3/18 - 10/7/2018	**10/4/2018**	9/3/18 - 10/7/2018	**8/24/2018**	8/24/2018	**8/25/2018**	8/25/2018
Hudson Drive	NB	**19**	8	**9**	7	**34**	22	**32**	32
	SB	**17**	6	**16**	10	**33**	15	**10**	10
	Total	**36**	14	**25**	17	**67**	37	**42**	42

Location		Typical Weekday AM		Typical Weekday PM		Summer Friday PM		Summer Saturday Mid-Day	
		MTM*	ATR Traffic Volumes**	TMTC*	ATR Traffic Volumes**	TMTC*	ATR Traffic Volumes**	TMTC*	ATR Traffic Volumes**
	Date	**10/4/2018**	9/3/18 - 10/7/2018	**10/4/2018**	9/3/18 - 10/7/2018	**8/24/2018**	8/24/2018	**8/25/2018**	8/25/2018
Tompkins Avenue (Between Hoover Place & Farley Drive)	EB	**58**	58	**79**	79	**82**	94	**85**	88
	WB	**60**	70	**92**	97	**100**	99	**71**	78
	Total	**118**	128	**171**	176	**182**	193	**156**	166

Location		Typical Weekday AM		Typical Weekday PM		Summer Friday PM		Summer Saturday Mid-Day	
		MTM*	ATR Traffic Volumes**	TMTC*	ATR Traffic Volumes**	TMTC*	ATR Traffic Volumes**	TMTC*	ATR Traffic Volumes**
	Date	**10/4/2018**	9/3/18 - 10/7/2018	**10/4/2018**	9/3/18 - 10/7/2018	**8/24/2018**	8/24/2018	**8/25/2018**	8/25/2018
Beach Road (North of East Main Street)	NB	**34**	31	**80**	69	**73**	72	**59**	67
	SB	**58**	40	**56**	44	**54**	56	**62**	42
	Total	**92**	71	**136**	113	**127**	128	**121**	109

Location		Typical Weekday AM		Typical Weekday PM		Summer Friday PM		Summer Saturday Mid-Day	
		MTM*	ATR Traffic Volumes**	TMTC*	ATR Traffic Volumes**	TMTC*	ATR Traffic Volumes**	TMTC*	ATR Traffic Volumes**
	Date	**10/4/2018**	9/3/18 - 10/7/2018	**10/4/2018**	9/3/18 - 10/7/2018	**8/24/2018**	8/24/2018	**8/25/2018**	8/25/2018
E Main Street (East of Lee Ave & West of Hudson Ave)	EB	**96**	102	**179**	188	**199**	211	**276**	238
	WB	**133**	159	**189**	166	**174**	159	**144**	138
	Total	**229**	261	**368**	354	**373**	370	**420**	376

Notes:

* Manual Turning Movement (MTM) Traffic Counts by direction as shown in Figures No. 2 through 5 in Appendix A of the TIS.

** Automatic Traffic Recorder (ATR) Traffic Counts in Appendix E.

Table B

HUDSON DRIVE

SUMMER FRIDAY	SUMMER FRIDAY 8/13 SB	NB	TOTAL
7-8	5	16	21
8-9	10	12	22
9-10	8	8	16
10-11	8	13	21
11-12	9	12	21
12-1	13	19	32
1-2	15	22	37
2-3	13	21	34
3-4	10	16	26
4-5	7	12	19
5-6	4	8	12
6-7	16	13	29

SUMMER SATURDAY	SUMMER SATURDAY 8/14 SB	NB	TOTAL
7-8	3	4	7
8-9	9	10	19
9-10	7	9	16
10-11	7	14	21
11-12	11	18	29
12-1	14	17	31
1-2	10	32	42
2-3	13	26	39
3-4	21	17	38
4-5	14	12	26
5-6	7	14	21
6-7	10	15	25

SUMMER SUNDAY	SUMMER SUNDAY 8/15 SB	NB	TOTAL
7-8	3	1	4
8-9	2	8	10
9-10	10	14	24
10-11	6	9	15
11-12	14	44	58
12-1	13	32	45
1-2	11	30	41
2-3	16	16	32
3-4	11	23	34
4-5	18	12	30
5-6	25	18	43
6-7	24	5	29

TOMKINS AVENUE (EAST OF HOOVER PLACE AND WEST OF FARLEY DRIVE)

SUMMER FRIDAY	SUMMER FRIDAY 8/24 EB	WB	TOTAL
7-8	52	51	103
8-9	49	51	100
9-10	30	55	85
10-11	52	51	103
11-12	66	54	120
12-1	52	57	109
1-2	64	59	123
2-3	55	66	121
3-4	80	72	152
4-5	76	97	173
5-6	94	99	193
6-7	69	82	151

SUMMER SATURDAY	SUMMER SATURDAY 8/25 EB	WB	TOTAL
7-8	19	37	56
8-9	24	46	70
9-10	50	53	103
10-11	71	67	138
11-12	65	68	133
12-1	67	61	128
1-2	88	78	166
2-3	68	49	117
3-4	62	50	112
4-5	62	77	139
5-6	65	65	130
6-7	64	70	134

SUMMER SUNDAY	SUMMER SUNDAY 8/26 EB	WB	TOTAL
7-8	18	28	46
8-9	26	27	53
9-10	44	43	87
10-11	62	60	122
11-12	90	58	148
12-1	94	64	158
1-2	80	58	138
2-3	64	71	135
3-4	78	66	144
4-5	59	85	144
5-6	57	78	135
6-7	64	88	152

BEACH ROAD (NORTH OF EAST MAIN STREET)

SUMMER FRIDAY	SUMMER FRIDAY 8/24 SB	NB	TOTAL
7-8	47	18	65
8-9	36	25	61
9-10	23	25	48
10-11	27	31	58
11-12	47	43	90
12-1	29	47	76
1-2	27	42	69
2-3	36	52	88
3-4	41	61	102
4-5	34	69	103
5-6	56	72	128
6-7	42	59	101

SUMMER SATURDAY	SUMMER SATURDAY 8/25 SB	NB	TOTAL
7-8	18	19	37
8-9	14	19	33
9-10	20	18	38
10-11	31	38	69
11-12	38	45	83
12-1	51	48	99
1-2	42	67	109
2-3	47	49	96
3-4	33	53	86
4-5	52	52	104
5-6	35	41	76
6-7	39	52	91

SUMMER SUNDAY	SUMMER SUNDAY 8/26 SB	NB	TOTAL
7-8	13	14	27
8-9	18	18	36
9-10	25	22	47
10-11	43	47	90
11-12	46	40	86
12-1	37	52	89
1-2	43	41	84
2-3	37	47	84
3-4	42	47	89
4-5	49	55	104
5-6	44	45	89
6-7	52	44	96

E. MAIN STREET (EAST OF LEE AVENUE AND WEST OF HUDSON AVENUE)

SUMMER FRIDAY	SUMMER FRIDAY 8/24 EB	WB	TOTAL
7-8	98	128	226
8-9	77	167	244
9-10	95	104	199
10-11	115	135	250
11-12	120	141	261
12-1	138	144	282
1-2	143	129	272
2-3	168	150	318
3-4	173	167	340
4-5	185	153	338
5-6	181	144	325
6-7	211	159	370

SUMMER SATURDAY	SUMMER SATURDAY 8/25 EB	WB	TOTAL
7-8	50	75	125
8-9	93	87	180
9-10	117	108	225
10-11	95	156	251
11-12	157	101	258
12-1	216	122	338
1-2	238	138	376
2-3	138	134	272
3-4	139	191	330
4-5	133	155	288
5-6	194	135	329
6-7	134	203	337

SUMMER SUNDAY	SUMMER SUNDAY 8/26 EB	WB	TOTAL
7-8	36	43	79
8-9	58	69	127
9-10	166	102	268
10-11	121	206	327
11-12	192	152	344
12-1	153	204	357
1-2	178	140	318
2-3	140	144	284
3-4	121	148	269
4-5	118	136	254
5-6	134	143	277
6-7	124	162	286

** Automatic Traffic Recorder (ATR) Traffic Counts in Appendix E.

Maser Consulting, P.A.

400 Columbus Avenue - Suite 180E
Valhalla, NY 10595

Customer Loyalty Through Client Satisfaction

File Name : 4._TOMKINS_AVENUE_&_BEACH_ROAD_&HUDSON_DRIVE_THURS_571662_10-04-2018
Site Code :
Start Date : 10/4/2018
Page No : 1

Groups Printed- Lights - Buses - Trucks - Pedestrians

	HUDSON DR From North					From East					BEACH RD From South					TOMKINS AVE From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
06:30 AM	0	1	0	0	1	0	0	0	0	0	0	0	4	0	4	3	0	1	0	4	9
06:45 AM	0	1	0	0	1	0	0	0	0	0	0	1	4	0	5	10	0	3	0	13	19
Total	0	2	0	0	2	0	0	0	0	0	0	1	8	0	9	13	0	4	0	17	28
07:00 AM	1	0	0	0	1	0	0	0	0	0	0	0	2	0	2	4	0	4	0	8	11
07:15 AM	5	1	0	0	6	0	0	0	0	0	0	1	3	0	4	8	0	0	0	8	18
07:30 AM	2	1	0	0	3	0	0	0	0	0	0	0	8	0	8	8	0	5	0	13	24
07:45 AM	0	2	0	0	2	0	0	0	0	0	0	4	6	0	10	16	0	2	0	18	30
Total	8	4	0	0	12	0	0	0	0	0	0	5	19	0	24	36	0	11	0	47	83
08:00 AM	4	2	0	0	6	0	0	0	0	0	0	2	3	0	5	11	0	5	0	16	27
08:15 AM	1	1	0	0	2	0	0	0	0	0	0	0	6	0	6	9	0	1	0	10	18
08:30 AM	1	2	0	1	4	0	0	0	0	0	0	0	9	0	9	7	0	2	1	10	23
08:45 AM	2	0	0	0	2	0	0	0	0	0	0	0	4	0	4	6	0	2	0	8	14
Total	8	5	0	1	14	0	0	0	0	0	0	2	22	0	24	33	0	10	1	44	82
09:00 AM	1	1	0	1	3	0	0	0	0	0	0	0	9	0	9	5	0	2	0	7	19
09:15 AM	4	0	0	1	5	0	0	0	0	0	0	1	5	0	6	7	0	1	1	9	20
Grand Total	21	12	0	3	36	0	0	0	0	0	0	9	63	0	72	94	0	28	2	124	232
Apprch %	58.3	33.3	0	8.3		0	0	0	0		0	12.5	87.5	0		75.8	0	22.6	1.6		
Total %	9.1	5.2	0	1.3	15.5	0	0	0	0	0	0	3.9	27.2	0	31	40.5	0	12.1	0.9	53.4	
Lights	18	10	0	0	28	0	0	0	0	0	0	6	45	0	51	89	0	28	0	117	196
% Lights	85.7	83.3	0	0	77.8	0	0	0	0	0	0	66.7	71.4	0	70.8	94.7	0	100	0	94.4	84.5
Buses	1	0	0	0	1	0	0	0	0	0	0	1	16	0	17	4	0	0	0	4	22
% Buses	4.8	0	0	0	2.8	0	0	0	0	0	0	11.1	25.4	0	23.6	4.3	0	0	0	3.2	9.5
Trucks	2	2	0	0	4	0	0	0	0	0	0	2	2	0	4	1	0	0	0	1	9
% Trucks	9.5	16.7	0	0	11.1	0	0	0	0	0	0	22.2	3.2	0	5.6	1.1	0	0	0	0.8	3.9
Pedestrians	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	5
% Pedestrians	0	0	0	100	8.3	0	0	0	0	0	0	0	0	0	0	0	0	0	100	1.6	2.2

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Site Code :
Start Date : 10/4/2018
Page No : 2

	HUDSON DR From North					From East					BEACH RD From South					TOMKINS AVE From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 09:15 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	5	1	0	0	6	0	0	0	0	0	0	1	3	0	4	8	0	0	0	8	18
07:30 AM	2	1	0	0	3	0	0	0	0	0	0	0	8	0	8	8	0	5	0	13	24
07:45 AM	0	2	0	0	2	0	0	0	0	0	0	4	6	0	10	16	0	2	0	18	30
08:00 AM	4	2	0	0	6	0	0	0	0	0	0	2	3	0	5	11	0	5	0	16	27
Total Volume	11	6	0	0	17	0	0	0	0	0	0	7	20	0	27	43	0	12	0	55	99
% App. Total	64.7	35.3	0	0		0	0	0	0		0	25.9	74.1	0		78.2	0	21.8	0		
PHF	.550	.750	.000	.000	.708	.000	.000	.000	.000	.000	.000	.438	.625	.000	.675	.672	.000	.600	.000	.764	.825
Lights	9	5	0	0	14	0	0	0	0	0	0	6	14	0	20	40	0	12	0	52	86
% Lights	81.8	83.3	0	0	82.4	0	0	0	0	0	0	85.7	70.0	0	74.1	93.0	0	100	0	94.5	86.9
Buses	0	0	0	0	0	0	0	0	0	0	0	1	6	0	7	3	0	0	0	3	10
% Buses	0	0	0	0	0	0	0	0	0	0	0	14.3	30.0	0	25.9	7.0	0	0	0	5.5	10.1
Trucks	2	1	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
% Trucks	18.2	16.7	0	0	17.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.0
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Groups Printed- Lights - Buses - Trucks - Pedestrians

	HUDSON DR From North					From East					BEACH RD From South					TOMKINS AVE From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
03:30 PM	4	2	0	0	6	0	0	0	0	0	0	0	19	0	19	8	0	4	0	12	37
03:45 PM	0	1	0	0	1	0	0	0	0	0	0	1	16	0	17	8	0	1	0	9	27
Total	4	3	0	0	7	0	0	0	0	0	0	1	35	0	36	16	0	5	0	21	64
04:00 PM	1	4	0	0	5	0	0	0	0	0	0	0	18	0	18	17	0	1	0	18	41
04:15 PM	2	2	0	0	4	0	0	0	0	0	0	2	15	0	17	11	0	0	0	11	32
04:30 PM	4	3	0	0	7	0	0	0	0	0	0	4	19	0	23	4	0	0	0	4	34
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	17	0	17	11	0	0	0	11	28
Total	7	9	0	0	16	0	0	0	0	0	0	6	69	0	75	43	0	1	0	44	135
05:00 PM	1	3	0	0	4	0	0	0	0	0	0	3	17	0	20	5	0	1	0	6	30
05:15 PM	4	0	0	0	4	0	0	0	0	0	0	0	14	0	14	2	0	2	0	4	22
05:30 PM	1	2	0	0	3	0	0	0	0	0	0	1	6	0	7	7	0	0	0	7	17
05:45 PM	1	0	0	0	1	0	0	0	0	0	0	1	6	0	7	8	0	0	0	8	16
Total	7	5	0	0	12	0	0	0	0	0	0	5	43	0	48	22	0	3	0	25	85
06:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	15	0	15	8	0	3	0	11	26
06:15 PM	4	0	0	0	4	0	0	0	0	0	0	2	9	0	11	6	0	0	0	6	21
Grand Total	22	17	0	0	39	0	0	0	0	0	0	14	171	0	185	95	0	12	0	107	331
Apprch %	56.4	43.6	0	0		0	0	0	0		0	7.6	92.4	0		88.8	0	11.2	0		
Total %	6.6	5.1	0	0	11.8	0	0	0	0	0	0	4.2	51.7	0	55.9	28.7	0	3.6	0	32.3	
Lights	22	17	0	0	39	0	0	0	0	0	0	14	167	0	181	88	0	11	0	99	319
% Lights	100	100	0	0	100	0	0	0	0	0	0	100	97.7	0	97.8	92.6	0	91.7	0	92.5	96.4
Buses	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	7	0	0	0	7	11
% Buses	0	0	0	0	0	0	0	0	0	0	0	0	2.3	0	2.2	7.4	0	0	0	6.5	3.3
Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
% Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8.3	0	0.9	0.3
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 03:30 PM to 06:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 03:30 PM																					
03:30 PM	4	2	0	0	6	0	0	0	0	0	0	0	19	0	19	8	0	4	0	12	37
03:45 PM	0	1	0	0	1	0	0	0	0	0	0	1	16	0	17	8	0	1	0	9	27
04:00 PM	1	4	0	0	5	0	0	0	0	0	0	0	18	0	18	17	0	1	0	18	41
04:15 PM	2	2	0	0	4	0	0	0	0	0	0	2	15	0	17	11	0	0	0	11	32
Total Volume	7	9	0	0	16	0	0	0	0	0	0	3	68	0	71	44	0	6	0	50	137
% App. Total	43.8	56.2	0	0		0	0	0	0		0	4.2	95.8	0		88	0	12	0		
PHF	.438	.563	.000	.000	.667	.000	.000	.000	.000	.000	.000	.375	.895	.000	.934	.647	.000	.375	.000	.694	.835
Lights	7	9	0	0	16	0	0	0	0	0	0	3	64	0	67	38	0	6	0	44	127
% Lights	100	100	0	0	100	0	0	0	0	0	0	100	94.1	0	94.4	86.4	0	100	0	88.0	92.7
Buses	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	6	0	0	0	6	10
% Buses	0	0	0	0	0	0	0	0	0	0	0	0	5.9	0	5.6	13.6	0	0	0	12.0	7.3
Trucks	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Customer Loyalty Through Client Satisfaction

File Name : 5._E_MAIN_STREET_GRASSY_POINT_ROAD_&_BEACH_ROAD_TRAILER_PARK_DRIVEWAY_THURS_571663_10-04-2018
Site Code :
Start Date : 10/4/2018
Page No : 1

Groups Printed- Lights - Buses - Trucks - Pedestrians

	BEACH RD From North					GRASSY POINT RD From East					TRAILER PARK From South					E MAIN ST From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
06:30 AM	3	0	5	0	8	4	7	0	0	11	4	0	4	0	8	0	10	1	0	11	38
06:45 AM	2	0	9	0	11	4	9	0	0	13	1	0	3	0	4	1	6	2	0	9	37
Total	5	0	14	0	19	8	16	0	0	24	5	0	7	0	12	1	16	3	0	20	75
07:00 AM	0	0	6	0	6	2	11	0	0	13	1	0	5	0	6	0	10	2	0	12	37
07:15 AM	2	0	7	1	10	3	15	0	1	19	1	0	4	0	5	1	19	0	0	20	54
07:30 AM	1	0	9	0	10	6	4	0	11	21	2	0	3	0	5	1	18	1	0	20	56
07:45 AM	2	0	19	0	21	10	9	0	0	19	0	0	4	0	4	3	29	0	0	32	76
Total	5	0	41	1	47	21	39	0	12	72	4	0	16	0	20	5	76	3	0	84	223
08:00 AM	2	0	12	0	14	7	11	1	0	19	1	0	4	0	5	1	11	2	0	14	52
08:15 AM	2	0	11	0	13	5	8	0	0	13	2	0	6	0	8	3	18	3	0	24	58
08:30 AM	4	0	5	1	10	8	7	1	0	16	1	0	4	1	6	1	9	3	0	13	45
08:45 AM	1	0	6	1	8	3	5	1	0	9	2	1	2	0	5	1	12	2	0	15	37
Total	9	0	34	2	45	23	31	3	0	57	6	1	16	1	24	6	50	10	0	66	192
09:00 AM	0	1	6	0	7	9	11	0	0	20	1	1	1	0	3	2	20	2	0	24	54
09:15 AM	4	0	5	0	9	5	12	0	0	17	1	0	3	0	4	1	17	0	1	19	49
Grand Total	23	1	100	3	127	66	109	3	12	190	17	2	43	1	63	15	179	18	1	213	593
Apprch %	18.1	0.8	78.7	2.4		34.7	57.4	1.6	6.3		27	3.2	68.3	1.6		7	84	8.5	0.5		
Total %	3.9	0.2	16.9	0.5	21.4	11.1	18.4	0.5	2	32	2.9	0.3	7.3	0.2	10.6	2.5	30.2	3	0.2	35.9	
Lights	18	1	96	0	115	49	90	3	0	142	17	2	42	0	61	13	160	12	0	185	503
% Lights	78.3	100	96	0	90.6	74.2	82.6	100	0	74.7	100	100	97.7	0	96.8	86.7	89.4	66.7	0	86.9	84.8
Buses	2	0	4	0	6	13	12	0	0	25	0	0	1	0	1	2	12	5	0	19	51
% Buses	8.7	0	4	0	4.7	19.7	11	0	0	13.2	0	0	2.3	0	1.6	13.3	6.7	27.8	0	8.9	8.6
Trucks	3	0	0	0	3	4	7	0	0	11	0	0	0	0	0	0	7	1	0	8	22
% Trucks	13	0	0	0	2.4	6.1	6.4	0	0	5.8	0	0	0	0	0	0	3.9	5.6	0	3.8	3.7
Pedestrians	0	0	0	3	3	0	0	0	12	12	0	0	0	1	1	0	0	0	1	1	17
% Pedestrians	0	0	0	100	2.4	0	0	0	100	6.3	0	0	0	100	1.6	0	0	0	100	0.5	2.9

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Customer Loyalty Through Client Satisfaction

File Name : 5._E_MAIN_STREET_GRASSY_POINT_ROAD_&_BEACH_ROAD_TRAILER_PARK_DRIVEWAY_THURS_571663_10-04-2018
Site Code :
Start Date : 10/4/2018
Page No : 2

	BEACH RD From North					GRASSY POINT RD From East					TRAILER PARK From South					E MAIN ST From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 09:15 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	1	0	9	0	10	6	4	0	11	21	2	0	3	0	5	1	18	1	0	20	56
07:45 AM	2	0	19	0	21	10	9	0	0	19	0	0	4	0	4	3	29	0	0	32	76
08:00 AM	2	0	12	0	14	7	11	1	0	19	1	0	4	0	5	1	11	2	0	14	52
08:15 AM	2	0	11	0	13	5	8	0	0	13	2	0	6	0	8	3	18	3	0	24	58
Total Volume	7	0	51	0	58	28	32	1	11	72	5	0	17	0	22	8	76	6	0	90	242
% App. Total	12.1	0	87.9	0		38.9	44.4	1.4	15.3		22.7	0	77.3	0		8.9	84.4	6.7	0		
PHF	.875	.000	.671	.000	.690	.700	.727	.250	.250	.857	.625	.000	.708	.000	.688	.667	.655	.500	.000	.703	.796
Lights	6	0	48	0	54	23	25	1	0	49	5	0	16	0	21	7	67	4	0	78	202
% Lights	85.7	0	94.1	0	93.1	82.1	78.1	100	0	68.1	100	0	94.1	0	95.5	87.5	88.2	66.7	0	86.7	83.5
Buses	1	0	3	0	4	4	4	0	0	8	0	0	1	0	1	1	7	2	0	10	23
% Buses	14.3	0	5.9	0	6.9	14.3	12.5	0	0	11.1	0	0	5.9	0	4.5	12.5	9.2	33.3	0	11.1	9.5
Trucks	0	0	0	0	0	1	3	0	0	4	0	0	0	0	0	0	2	0	0	2	6
% Trucks	0	0	0	0	0	3.6	9.4	0	0	5.6	0	0	0	0	0	0	2.6	0	0	2.2	2.5
Pedestrians	0	0	0	0	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0	11
% Pedestrians	0	0	0	0	0	0	0	0	100	15.3	0	0	0	0	0	0	0	0	0	0	4.5

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Customer Loyalty Through Client Satisfaction

File Name : 5._E_MAIN_STREET_GRASSY_POINT_ROAD_&_BEACH_ROAD_TRAILER_PARK_DRIVEWAY_THURS_571663_10-04-2018
Site Code :
Start Date : 10/4/2018
Page No : 1

Groups Printed- Lights - Buses - Trucks - Pedestrians

	BEACH RD From North					GRASSY POINT RD From East					TRAILER PARK From South					E MAIN ST From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
03:30 PM	1	0	13	0	14	17	28	2	0	47	1	0	1	0	2	3	19	5	0	27	90
03:45 PM	1	0	8	1	10	15	22	1	0	38	0	0	2	0	2	5	14	1	0	20	70
Total	2	0	21	1	24	32	50	3	0	85	1	0	3	0	4	8	33	6	0	47	160
04:00 PM	3	1	18	0	22	19	19	2	0	40	1	0	5	0	6	2	22	1	0	25	93
04:15 PM	0	0	11	0	11	18	24	1	0	43	0	0	1	1	2	2	16	4	0	22	78
04:30 PM	0	0	4	0	4	15	24	2	0	41	0	1	1	0	2	1	17	1	0	19	66
04:45 PM	0	0	12	0	12	17	30	4	0	51	1	0	0	0	1	3	15	0	0	18	82
Total	3	1	45	0	49	69	97	9	0	175	2	1	7	1	11	8	70	6	0	84	319
05:00 PM	3	0	8	0	11	15	23	2	0	40	1	0	1	0	2	2	14	2	0	18	71
05:15 PM	3	0	1	0	4	12	16	7	0	35	4	0	1	0	5	2	13	2	0	17	61
05:30 PM	1	0	7	0	8	7	20	0	0	27	3	0	2	0	5	3	19	3	0	25	65
05:45 PM	3	0	4	0	7	8	18	5	0	31	0	0	3	0	3	5	19	0	0	24	65
Total	10	0	20	0	30	42	77	14	0	133	8	0	7	0	15	12	65	7	0	84	262
06:00 PM	1	0	9	2	12	11	15	2	0	28	1	0	3	0	4	5	7	1	0	13	57
06:15 PM	0	0	5	0	5	11	16	3	0	30	0	0	1	0	1	4	14	1	0	19	55
Grand Total	16	1	100	3	120	165	255	31	0	451	12	1	21	1	35	37	189	21	0	247	853
Apprch %	13.3	0.8	83.3	2.5		36.6	56.5	6.9	0		34.3	2.9	60	2.9		15	76.5	8.5	0		
Total %	1.9	0.1	11.7	0.4	14.1	19.3	29.9	3.6	0	52.9	1.4	0.1	2.5	0.1	4.1	4.3	22.2	2.5	0	29	
Lights	16	1	92	0	109	163	243	31	0	437	12	1	20	0	33	36	164	18	0	218	797
% Lights	100	100	92	0	90.8	98.8	95.3	100	0	96.9	100	100	95.2	0	94.3	97.3	86.8	85.7	0	88.3	93.4
Buses	0	0	8	0	8	2	6	0	0	8	0	0	1	0	1	1	21	2	0	24	41
% Buses	0	0	8	0	6.7	1.2	2.4	0	0	1.8	0	0	4.8	0	2.9	2.7	11.1	9.5	0	9.7	4.8
Trucks	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	4	1	0	5	11
% Trucks	0	0	0	0	0	0	2.4	0	0	1.3	0	0	0	0	0	0	2.1	4.8	0	2	1.3
Pedestrians	0	0	0	3	3	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	4
% Pedestrians	0	0	0	100	2.5	0	0	0	0	0	0	0	0	100	2.9	0	0	0	0	0	0.5

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Customer Loyalty Through Client Satisfaction

File Name : 5._E_MAIN_STREET_GRASSY_POINT_ROAD_&_BEACH_ROAD_TRAILER_PARK_DRIVEWAY_THURS_571663_10-04-2018
Site Code :
Start Date : 10/4/2018
Page No : 2

	BEACH RD From North					GRASSY POINT RD From East					TRAILER PARK From South					E MAIN ST From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 03:30 PM to 06:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 03:30 PM																					
03:30 PM	1	0	13	0	14	17	28	2	0	47	1	0	1	0	2	3	19	5	0	27	90
03:45 PM	1	0	8	1	10	15	22	1	0	38	0	0	2	0	2	5	14	1	0	20	70
04:00 PM	3	1	18	0	22	19	19	2	0	40	1	0	5	0	6	2	22	1	0	25	93
04:15 PM	0	0	11	0	11	18	24	1	0	43	0	0	1	1	2	2	16	4	0	22	78
Total Volume	5	1	50	1	57	69	93	6	0	168	2	0	9	1	12	12	71	11	0	94	331
% App. Total	8.8	1.8	87.7	1.8		41.1	55.4	3.6	0		16.7	0	75	8.3		12.8	75.5	11.7	0		
PHF	.417	.250	.694	.250	.648	.908	.830	.750	.000	.894	.500	.000	.450	.250	.500	.600	.807	.550	.000	.870	.890
Lights	5	1	43	0	49	67	85	6	0	158	2	0	8	0	10	11	51	9	0	71	288
% Lights	100	100	86.0	0	86.0	97.1	91.4	100	0	94.0	100	0	88.9	0	83.3	91.7	71.8	81.8	0	75.5	87.0
Buses	0	0	7	0	7	2	5	0	0	7	0	0	1	0	1	1	19	2	0	22	37
% Buses	0	0	14.0	0	12.3	2.9	5.4	0	0	4.2	0	0	11.1	0	8.3	8.3	26.8	18.2	0	23.4	11.2
Trucks	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	4
% Trucks	0	0	0	0	0	0	3.2	0	0	1.8	0	0	0	0	0	0	1.4	0	0	1.1	1.2
Pedestrians	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2
% Pedestrians	0	0	0	100	1.8	0	0	0	0	0	0	0	0	100	8.3	0	0	0	0	0	0.6

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Customer Loyalty Through Client Satisfaction

File Name : E_MAIN_STREET_GRASSY_POINT_ROAD_&_BEACH_ROAD_TRAILER_PARK_DRIVEWAY_FRI_555715_08-24-2018
Site Code :
Start Date : 8/24/2018
Page No : 1

Groups Printed- Lights - Buses - Trucks - Pedestrians

	BEACH RD From North					GRASSY POINT RD From East					TRAILLER PARK From South					E MAIN ST From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
04:00 PM	2	0	4	0	6	9	23	1	0	33	3	0	5	0	8	3	23	1	4	31	78
04:15 PM	3	1	8	0	12	24	24	0	1	49	1	0	0	0	1	2	18	1	0	21	83
04:30 PM	3	1	4	0	8	19	14	2	0	35	1	0	1	0	2	3	30	3	0	36	81
04:45 PM	1	1	11	2	15	10	21	1	0	32	3	1	2	0	6	5	25	2	0	32	85
Total	9	3	27	2	41	62	82	4	1	149	8	1	8	0	17	13	96	7	4	120	327
05:00 PM	2	0	14	0	16	15	30	1	4	50	1	2	0	1	4	7	17	3	0	27	97
05:15 PM	4	1	7	0	12	15	18	2	3	38	2	0	5	0	7	5	23	2	0	30	87
05:30 PM	3	0	14	0	17	13	18	0	0	31	1	1	4	0	6	2	25	1	0	28	82
05:45 PM	1	0	8	0	9	20	21	3	0	44	3	0	2	0	5	5	34	1	0	40	98
Total	10	1	43	0	54	63	87	6	7	163	7	3	11	1	22	19	99	7	0	125	364
06:00 PM	2	1	6	2	11	22	20	2	0	44	1	0	5	0	6	6	23	0	0	29	90
06:15 PM	1	1	15	0	17	8	26	1	0	35	0	0	4	0	4	4	31	2	0	37	93
06:30 PM	4	0	8	0	12	9	19	0	0	28	0	0	0	0	0	5	24	2	0	31	71
06:45 PM	1	0	8	0	9	15	32	3	0	50	0	0	2	0	2	1	25	7	0	33	94
Total	8	2	37	2	49	54	97	6	0	157	1	0	11	0	12	16	103	11	0	130	348
Grand Total	27	6	107	4	144	179	266	16	8	469	16	4	30	1	51	48	298	25	4	375	1039
Apprch %	18.8	4.2	74.3	2.8		38.2	56.7	3.4	1.7		31.4	7.8	58.8	2		12.8	79.5	6.7	1.1		
Total %	2.6	0.6	10.3	0.4	13.9	17.2	25.6	1.5	0.8	45.1	1.5	0.4	2.9	0.1	4.9	4.6	28.7	2.4	0.4	36.1	
Lights	26	6	105	0	137	178	258	16	0	452	16	4	29	0	49	47	296	24	0	367	1005
% Lights	96.3	100	98.1	0	95.1	99.4	97	100	0	96.4	100	100	96.7	0	96.1	97.9	99.3	96	0	97.9	96.7
Buses	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	1	0	0	0	1	3
% Buses	0	0	0	0	0	0	0.4	0	0	0.2	0	0	3.3	0	2	2.1	0	0	0	0.3	0.3
Trucks	1	0	2	0	3	1	7	0	0	8	0	0	0	0	0	0	2	1	0	3	14
% Trucks	3.7	0	1.9	0	2.1	0.6	2.6	0	0	1.7	0	0	0	0	0	0	0.7	4	0	0.8	1.3
Pedestrians	0	0	0	4	4	0	0	0	8	8	0	0	0	1	1	0	0	0	4	4	17
% Pedestrians	0	0	0	100	2.8	0	0	0	100	1.7	0	0	0	100	2	0	0	0	100	1.1	1.6

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Customer Loyalty Through Client Satisfaction

File Name : E_MAIN_STREET_GRASSY_POINT_ROAD_&_BEACH_ROAD_TRAILER_PARK_DRIVEWAY_FRI_555715_08-24-2018
Site Code :
Start Date : 8/24/2018
Page No : 2

	BEACH RD From North					GRASSY POINT RD From East					TRAILLER PARK From South					E MAIN ST From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 06:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	2	0	14	0	16	15	30	1	4	50	1	2	0	1	4	7	17	3	0	27	97
05:15 PM	4	1	7	0	12	15	18	2	3	38	2	0	5	0	7	5	23	2	0	30	87
05:30 PM	3	0	14	0	17	13	18	0	0	31	1	1	4	0	6	2	25	1	0	28	82
05:45 PM	1	0	8	0	9	20	21	3	0	44	3	0	2	0	5	5	34	1	0	40	98
Total Volume	10	1	43	0	54	63	87	6	7	163	7	3	11	1	22	19	99	7	0	125	364
% App. Total	18.5	1.9	79.6	0		38.7	53.4	3.7	4.3		31.8	13.6	50	4.5		15.2	79.2	5.6	0		
PHF	.625	.250	.768	.000	.794	.788	.725	.500	.438	.815	.583	.375	.550	.250	.786	.679	.728	.583	.000	.781	.929
Lights	10	1	43	0	54	63	86	6	0	155	7	3	11	0	21	19	99	7	0	125	355
% Lights	100	100	100	0	100	100	98.9	100	0	95.1	100	100	100	0	95.5	100	100	100	0	100	97.5
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
Trucks	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
% Trucks	0	0	0	0	0	0	1.1	0	0	0.6	0	0	0	0	0	0	0	0	0	0	0.3
Pedestrians	0	0	0	0	0	0	0	0	7	7	0	0	0	1	1	0	0	0	0	0	8
% Pedestrians	0	0	0	0	0	0	0	0	100	4.3	0	0	0	100	4.5	0	0	0	0	0	2.2

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400 Columbus Avenue - Suite 180E
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Customer Loyalty Through Client Satisfaction

File Name : E_MAIN_STREET_GRASSY_POINT_ROAD_&_BEACH_ROAD_TRAILER_PARK_DRIVEWAY_SAT_555705_08-25-2018
Site Code :
Start Date : 8/25/2018
Page No : 1

Groups Printed- Lights - Buses - Trucks - Pedestrians

	BEACH RD From North					GRASSY POINT RD From East					TRAILLER PARK From South					E MAIN ST From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
10:00 AM	1	0	5	0	6	6	4	1	0	11	1	0	7	1	9	4	14	0	1	19	45
10:15 AM	0	0	4	0	4	8	13	1	1	23	2	0	2	0	4	2	10	2	1	15	46
10:30 AM	1	0	9	0	10	11	12	4	0	27	0	0	3	0	3	0	20	4	0	24	64
10:45 AM	0	0	12	0	12	8	13	0	0	21	3	0	5	0	8	1	15	1	0	17	58
Total	2	0	30	0	32	33	42	6	1	82	6	0	17	1	24	7	59	7	2	75	213
11:00 AM	1	0	9	3	13	7	12	1	0	20	3	0	1	0	4	5	17	1	0	23	60
11:15 AM	0	0	10	0	10	5	13	0	0	18	0	1	5	0	6	6	22	4	0	32	66
11:30 AM	0	0	9	0	9	11	16	1	0	28	3	0	1	0	4	6	22	0	0	28	69
11:45 AM	2	0	8	0	10	12	9	0	0	21	1	0	2	0	3	3	21	2	0	26	60
Total	3	0	36	3	42	35	50	2	0	87	7	1	9	0	17	20	82	7	0	109	255
12:00 PM	0	0	4	0	4	10	12	2	0	24	0	0	1	0	1	1	32	2	0	35	64
12:15 PM	0	0	12	0	12	11	13	0	0	24	0	0	1	0	1	4	32	1	0	37	74
12:30 PM	5	1	13	0	19	9	18	2	0	29	1	1	3	0	5	5	40	3	0	48	101
12:45 PM	1	0	14	0	15	12	13	3	0	28	1	0	2	0	3	2	26	2	0	30	76
Total	6	1	43	0	50	42	56	7	0	105	2	1	7	0	10	12	130	8	0	150	315
01:00 PM	2	0	7	0	9	21	13	2	0	36	0	0	3	0	3	4	35	3	0	42	90
01:15 PM	7	2	10	0	19	7	19	1	0	27	0	0	4	0	4	3	26	1	0	30	80
01:30 PM	2	0	11	0	13	13	10	0	0	23	0	0	0	0	0	2	22	6	0	30	66
01:45 PM	2	0	8	0	10	13	20	0	0	33	0	2	5	0	7	4	23	3	0	30	80
Total	13	2	36	0	51	54	62	3	0	119	0	2	12	0	14	13	106	13	0	132	316
Grand Total	24	3	145	3	175	164	210	18	1	393	15	4	45	1	65	52	377	35	2	466	1099
Apprch %	13.7	1.7	82.9	1.7		41.7	53.4	4.6	0.3		23.1	6.2	69.2	1.5		11.2	80.9	7.5	0.4		
Total %	2.2	0.3	13.2	0.3	15.9	14.9	19.1	1.6	0.1	35.8	1.4	0.4	4.1	0.1	5.9	4.7	34.3	3.2	0.2	42.4	
Lights	23	3	143	0	169	161	206	18	0	385	14	4	45	0	63	51	375	35	0	461	1078
% Lights	95.8	100	98.6	0	96.6	98.2	98.1	100	0	98	93.3	100	100	0	96.9	98.1	99.5	100	0	98.9	98.1
Buses	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
% Buses	0	0	0.7	0	0.6	0	0.5	0	0	0.3	0	0	0	0	0	0	0	0	0	0	0.2
Trucks	1	0	1	0	2	3	3	0	0	6	1	0	0	0	1	1	2	0	0	3	12
% Trucks	4.2	0	0.7	0	1.1	1.8	1.4	0	0	1.5	6.7	0	0	0	1.5	1.9	0.5	0	0	0.6	1.1
Pedestrians	0	0	0	3	3	0	0	0	1	1	0	0	0	1	1	0	0	0	2	2	7
% Pedestrians	0	0	0	100	1.7	0	0	0	100	0.3	0	0	0	100	1.5	0	0	0	100	0.4	0.6

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Customer Loyalty Through Client Satisfaction

File Name : E_MAIN_STREET_GRASSY_POINT_ROAD_&_BEACH_ROAD_TRAILER_PARK_DRIVEWAY_SAT_555705_08-25-2018
Site Code :
Start Date : 8/25/2018
Page No : 2

	BEACH RD From North					GRASSY POINT RD From East					TRAILLER PARK From South					E MAIN ST From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:30 PM																					
12:30 PM	5	1	13	0	19	9	18	2	0	29	1	1	3	0	5	5	40	3	0	48	101
12:45 PM	1	0	14	0	15	12	13	3	0	28	1	0	2	0	3	2	26	2	0	30	76
01:00 PM	2	0	7	0	9	21	13	2	0	36	0	0	3	0	3	4	35	3	0	42	90
01:15 PM	7	2	10	0	19	7	19	1	0	27	0	0	4	0	4	3	26	1	0	30	80
Total Volume	15	3	44	0	62	49	63	8	0	120	2	1	12	0	15	14	127	9	0	150	347
% App. Total	24.2	4.8	71	0		40.8	52.5	6.7	0		13.3	6.7	80	0		9.3	84.7	6	0		
PHF	.536	.375	.786	.000	.816	.583	.829	.667	.000	.833	.500	.250	.750	.000	.750	.700	.794	.750	.000	.781	.859
Lights	15	3	44	0	62	49	63	8	0	120	2	1	12	0	15	14	127	9	0	150	347
% Lights	100	100	100	0	100	100	100	100	0	100	100	100	100	0	100	100	100	100	0	100	100
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
Trucks	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Valhalla, NY 10595

Customer Loyalty Through Client Satisfaction

File Name : 1.U.S._ROUTE_9W_&_E_W_MAIN_STREET_THURS_571659_10-04-2018
Site Code :
Start Date : 10/4/2018
Page No : 1

Groups Printed- Lights - Buses - Trucks - Pedestrians

	N LIBERTY DR From North						E MAINT ST From East						LOWLAND HILL RD From Southeast						S LIBERTY DR From South						W MAIN ST From West						
Start Time	Right	Thru	Bear Left	Left	Peds	App. Total	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	Peds	App. Total	Right	Bear Right	Thru	Left	Peds	App. Total	Int. Total
06:30 AM	8	55	1	5	0	69	3	12	17	0	0	32	0	0	0	0	0	0	1	5	33	7	0	46	10	0	2	2	2	16	163
06:45 AM	5	69	0	5	0	79	3	11	12	1	1	28	0	0	0	0	1	1	0	9	45	6	0	60	12	0	0	3	0	15	183
Total	13	124	1	10	0	148	6	23	29	1	1	60	0	0	0	0	1	1	1	14	78	13	0	106	22	0	2	5	2	31	346
07:00 AM	10	93	0	4	1	108	4	17	13	0	1	35	0	0	0	0	1	1	0	10	56	5	0	71	12	0	4	11	0	27	242
07:15 AM	12	95	0	7	0	114	8	9	28	0	0	45	0	0	1	0	2	3	0	19	55	7	3	84	9	0	11	5	1	26	272
07:30 AM	10	108	0	4	0	122	2	14	18	0	0	34	0	0	0	0	0	0	0	19	65	5	1	90	23	0	5	5	0	33	279
07:45 AM	10	119	0	11	0	140	3	11	41	0	0	55	0	0	0	0	1	1	0	15	40	7	0	62	13	0	10	8	0	31	289
Total	42	415	0	26	1	484	17	51	100	0	1	169	0	0	1	0	4	5	0	63	216	24	4	307	57	0	30	29	1	117	1082
08:00 AM	5	93	0	2	0	100	3	10	39	0	3	55	0	0	0	0	3	3	0	18	50	4	0	72	15	0	6	8	0	29	259
08:15 AM	12	113	0	3	0	128	5	11	23	0	0	39	1	0	0	0	0	1	0	15	69	5	0	89	7	0	2	7	0	16	273
08:30 AM	5	78	0	1	0	84	8	10	17	0	0	35	1	0	0	0	0	1	0	17	76	4	0	97	22	0	8	12	0	42	259
08:45 AM	8	115	0	3	0	126	3	7	24	0	0	34	0	0	0	0	1	1	0	12	80	18	0	110	17	0	4	7	0	28	299
Total	30	399	0	9	0	438	19	38	103	0	3	163	2	0	0	0	4	6	0	62	275	31	0	368	61	0	20	34	0	115	1090
09:00 AM	10	132	0	3	0	145	6	6	13	0	0	25	1	0	0	0	2	3	0	20	78	12	0	110	21	0	8	3	0	32	315
09:15 AM	7	93	0	4	0	104	3	8	21	0	0	32	0	0	0	0	0	0	0	15	69	9	0	93	11	0	8	8	0	27	256
Grand Total	102	1163	1	52	1	1319	51	126	266	1	5	449	3	0	1	0	11	15	1	174	716	89	4	984	172	0	68	79	3	322	3089
Apprch %	7.7	88.2	0.1	3.9	0.1		11.4	28.1	59.2	0.2	1.1		20	0	6.7	0	73.3		0.1	17.7	72.8	9	0.4		53.4	0	21.1	24.5	0.9		
Total %	3.3	37.6	0	1.7	0	42.7	1.7	4.1	8.6	0	0.2	14.5	0.1	0	0	0	0.4	0.5	0	5.6	23.2	2.9	0.1	31.9	5.6	0	2.2	2.6	0.1	10.4	
Lights	96	1046	1	46	0	1189	38	121	243	0	0	402	3	0	1	0	0	4	1	147	615	79	0	842	166	0	62	69	0	297	2734
% Lights	94.1	89.9	100	88.5	0	90.1	74.5	96	91.4	0	0	89.5	100	0	100	0	0	26.7	100	84.5	85.9	88.8	0	85.6	96.5	0	91.2	87.3	0	92.2	88.5
Buses	5	54	0	3	0	62	6	4	13	0	0	23	0	0	0	0	0	0	0	16	57	9	0	82	4	0	3	8	0	15	182
% Buses	4.9	4.6	0	5.8	0	4.7	11.8	3.2	4.9	0	0	5.1	0	0	0	0	0	0	0	9.2	8	10.1	0	8.3	2.3	0	4.4	10.1	0	4.7	5.9
Trucks	1	63	0	3	0	67	7	1	10	1	0	19	0	0	0	0	0	0	0	11	44	1	0	56	2	0	3	2	0	7	149
% Trucks	1	5.4	0	5.8	0	5.1	13.7	0.8	3.8	100	0	4.2	0	0	0	0	0	0	0	6.3	6.1	1.1	0	5.7	1.2	0	4.4	2.5	0	2.2	4.8
Pedestrians	0	0	0	0	1	1	0	0	0	0	5	5	0	0	0	0	11	11	0	0	0	0	4	4	0	0	0	0	3	3	24
% Pedestrians	0	0	0	0	100	0.1	0	0	0	0	100	1.1	0	0	0	0	100	73.3	0	0	0	0	100	0.4	0	0	0	0	100	0.9	0.8

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Customer Loyalty Through Client Satisfaction

File Name : 1.U.S._ROUTE_9W_&_E_W_MAIN_STREET_THURS_571659_10-04-2018
Site Code :
Start Date : 10/4/2018
Page No : 2

	N LIBERTY DR From North						E MAINT ST From East						LOWLAND HILL RD From Southeast						S LIBERTY DR From South						W MAIN ST From West						
Start Time	Right	Thru	Bear Left	Left	Peds	App. Total	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	Peds	App. Total	Right	Bear Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 09:15 AM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 08:15 AM																															
08:15 AM	12	113	0	3	0	128	5	11	23	0	0	39	1	0	0	0	0	1	0	15	69	5	0	89	7	0	2	7	0	16	273
08:30 AM	5	78	0	1	0	84	8	10	17	0	0	35	1	0	0	0	0	1	0	17	76	4	0	97	22	0	8	12	0	42	259
08:45 AM	8	115	0	3	0	126	3	7	24	0	0	34	0	0	0	0	1	1	0	12	80	18	0	110	17	0	4	7	0	28	299
09:00 AM	10	132	0	3	0	145	6	6	13	0	0	25	1	0	0	0	2	3	0	20	78	12	0	110	21	0	8	3	0	32	315
Total Volume	35	438	0	10	0	483	22	34	77	0	0	133	3	0	0	0	3	6	0	64	303	39	0	406	67	0	22	29	0	118	1146
% App. Total	7.2	90.7	0	2.1	0		16.5	25.6	57.9	0	0		50	0	0	0	50		0	15.8	74.6	9.6	0		56.8	0	18.6	24.6	0		
PHF	.729	.830	.000	.833	.000	.833	.688	.773	.802	.000	.000	.853	.750	.000	.000	.000	.375	.500	.000	.800	.947	.542	.000	.923	.761	.000	.688	.604	.000	.702	.910
Lights	33	388	0	10	0	431	18	31	73	0	0	122	3	0	0	0	0	3	0	56	255	35	0	346	65	0	20	28	0	113	1015
% Lights	94.3	88.6	0	100	0	89.2	81.8	91.2	94.8	0	0	91.7	100	0	0	0	0	50.0	0	87.5	84.2	89.7	0	85.2	97.0	0	90.9	96.6	0	95.8	88.6
Buses	2	30	0	0	0	32	2	2	2	0	0	6	0	0	0	0	0	0	0	6	26	4	0	36	2	0	1	0	0	3	77
% Buses	5.7	6.8	0	0	0	6.6	9.1	5.9	2.6	0	0	4.5	0	0	0	0	0	0	0	9.4	8.6	10.3	0	8.9	3.0	0	4.5	0	0	2.5	6.7
Trucks	0	20	0	0	0	20	2	1	2	0	0	5	0	0	0	0	0	0	0	2	22	0	0	24	0	0	1	1	0	2	51
% Trucks	0	4.6	0	0	0	4.1	9.1	2.9	2.6	0	0	3.8	0	0	0	0	0	0	0	3.1	7.3	0	0	5.9	0	0	4.5	3.4	0	1.7	4.5
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	3
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	50.0	0	0	0	0	0	0	0	0	0	0	0	0	0.3

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Customer Loyalty Through Client Satisfaction

File Name : 1.U.S._ROUTE_9W_&_E_W_MAIN_STREET_THURS_571659_10-04-2018
Site Code :
Start Date : 10/4/2018
Page No : 1

Groups Printed- Lights - Buses - Trucks - Pedestrians

	N LIBERTY DR From North						E MAINT ST From East						LOWLAND HILL RD From Southeast						S LIBERTY DR From South						W MAIN ST From West						
Start Time	Right	Thru	Bear Left	Left	Peds	App. Total	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	Peds	App. Total	Right	Bear Right	Thru	Left	Peds	App. Total	Int. Total
03:30 PM	7	86	0	6	0	99	6	12	30	0	0	48	0	0	0	0	0	0	0	36	119	19	0	174	17	0	14	14	0	45	366
03:45 PM	4	91	0	6	0	101	7	11	32	0	0	50	1	0	0	0	0	1	0	32	117	31	0	180	20	0	13	10	0	43	375
Total	11	177	0	12	0	200	13	23	62	0	0	98	1	0	0	0	0	1	0	68	236	50	0	354	37	0	27	24	0	88	741
04:00 PM	6	99	0	9	0	114	7	7	35	0	0	49	1	0	0	0	3	4	1	25	99	26	0	151	22	0	9	11	1	43	361
04:15 PM	7	89	0	5	0	101	3	12	16	0	0	31	0	0	0	0	2	2	0	35	112	32	0	179	15	0	7	15	0	37	350
04:30 PM	10	95	0	7	0	112	6	12	29	0	0	47	1	0	0	0	0	1	1	31	114	15	0	161	21	0	8	13	0	42	363
04:45 PM	6	99	0	3	0	108	11	18	28	0	0	57	3	0	0	0	0	3	1	31	138	26	0	196	10	0	12	11	0	33	397
Total	29	382	0	24	0	435	27	49	108	0	0	184	5	0	0	0	5	10	3	122	463	99	0	687	68	0	36	50	1	155	1471
05:00 PM	8	101	0	5	0	114	7	19	28	0	0	54	0	2	0	0	1	3	1	27	108	23	0	159	12	0	8	12	0	32	362
05:15 PM	7	79	0	3	0	89	6	13	17	0	0	36	0	0	0	0	0	0	0	30	105	26	0	161	20	0	5	10	0	35	321
05:30 PM	10	86	0	4	0	100	2	12	16	0	0	30	1	1	0	0	0	2	2	39	109	23	0	173	16	0	12	9	1	38	343
05:45 PM	5	99	0	3	0	107	8	6	28	0	0	42	1	1	0	0	0	2	0	38	116	20	0	174	14	0	12	13	0	39	364
Total	30	365	0	15	0	410	23	50	89	0	0	162	2	4	0	0	1	7	3	134	438	92	0	667	62	0	37	44	1	144	1390
06:00 PM	4	75	0	3	0	82	4	10	30	0	0	44	1	0	0	0	0	1	1	40	90	26	0	157	15	0	16	14	2	47	331
06:15 PM	13	73	0	3	0	89	3	14	34	0	0	51	1	1	0	0	0	2	0	24	98	27	0	149	7	0	18	11	3	39	330
Grand Total	87	1072	0	57	0	1216	70	146	323	0	0	539	10	5	0	0	6	21	7	388	1325	294	0	2014	189	0	134	143	7	473	4263
Apprch %	7.2	88.2	0	4.7	0		13	27.1	59.9	0	0		47.6	23.8	0	0	28.6		0.3	19.3	65.8	14.6	0		40	0	28.3	30.2	1.5		
Total %	2	25.1	0	1.3	0	28.5	1.6	3.4	7.6	0	0	12.6	0.2	0.1	0	0	0.1	0.5	0.2	9.1	31.1	6.9	0	47.2	4.4	0	3.1	3.4	0.2	11.1	
Lights	82	1016	0	45	0	1143	66	142	318	0	0	526	10	5	0	0	0	15	7	378	1267	290	0	1942	183	0	125	140	0	448	4074
% Lights	94.3	94.8	0	78.9	0	94	94.3	97.3	98.5	0	0	97.6	100	100	0	0	0	71.4	100	97.4	95.6	98.6	0	96.4	96.8	0	93.3	97.9	0	94.7	95.6
Buses	4	22	0	10	0	36	3	2	2	0	0	7	0	0	0	0	0	0	0	7	18	3	0	28	5	0	6	1	0	12	83
% Buses	4.6	2.1	0	17.5	0	3	4.3	1.4	0.6	0	0	1.3	0	0	0	0	0	0	0	1.8	1.4	1	0	1.4	2.6	0	4.5	0.7	0	2.5	1.9
Trucks	1	34	0	2	0	37	1	2	3	0	0	6	0	0	0	0	0	0	0	3	40	1	0	44	1	0	3	2	0	6	93
% Trucks	1.1	3.2	0	3.5	0	3	1.4	1.4	0.9	0	0	1.1	0	0	0	0	0	0	0	0.8	3	0.3	0	2.2	0.5	0	2.2	1.4	0	1.3	2.2
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	7	7	13
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	28.6	0	0	0	0	0	0	0	0	0	0	100	1.5	0.3

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Customer Loyalty Through Client Satisfaction

File Name : 1.U.S._ROUTE_9W_&_E_W_MAIN_STREET_THURS_571659_10-04-2018
Site Code :
Start Date : 10/4/2018
Page No : 2

	N LIBERTY DR From North						E MAINT ST From East						LOWLAND HILL RD From Southeast						S LIBERTY DR From South						W MAIN ST From West						
Start Time	Right	Thru	Bear Left	Left	Peds	App. Total	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	Peds	App. Total	Right	Bear Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 03:30 PM to 06:15 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 04:15 PM																															
04:15 PM	7	89	0	5	0	101	3	12	16	0	0	31	0	0	0	0	2	2	0	35	112	32	0	179	15	0	7	15	0	37	350
04:30 PM	10	95	0	7	0	112	6	12	29	0	0	47	1	0	0	0	0	1	1	31	114	15	0	161	21	0	8	13	0	42	363
04:45 PM	6	99	0	3	0	108	11	18	28	0	0	57	3	0	0	0	0	3	1	31	138	26	0	196	10	0	12	11	0	33	397
05:00 PM	8	101	0	5	0	114	7	19	28	0	0	54	0	2	0	0	1	3	1	27	108	23	0	159	12	0	8	12	0	32	362
Total Volume	31	384	0	20	0	435	27	61	101	0	0	189	4	2	0	0	3	9	3	124	472	96	0	695	58	0	35	51	0	144	1472
% App. Total	7.1	88.3	0	4.6	0		14.3	32.3	53.4	0	0		44.4	22.2	0	0	33.3		0.4	17.8	67.9	13.8	0		40.3	0	24.3	35.4	0		
PHF	.775	.950	.000	.714	.000	.954	.614	.803	.871	.000	.000	.829	.333	.250	.000	.000	.375	.750	.750	.886	.855	.750	.000	.886	.690	.000	.729	.850	.000	.857	.927
Lights	31	375	0	17	0	423	25	60	99	0	0	184	4	2	0	0	0	6	3	121	458	95	0	677	57	0	31	50	0	138	1428
% Lights	100	97.7	0	85.0	0	97.2	92.6	98.4	98.0	0	0	97.4	100	100	0	0	0	66.7	100	97.6	97.0	99.0	0	97.4	98.3	0	88.6	98.0	0	95.8	97.0
Buses	0	5	0	2	0	7	1	0	1	0	0	2	0	0	0	0	0	0	0	2	2	0	0	4	1	0	2	0	0	3	16
% Buses	0	1.3	0	10.0	0	1.6	3.7	0	1.0	0	0	1.1	0	0	0	0	0	0	0	1.6	0.4	0	0	0.6	1.7	0	5.7	0	0	2.1	1.1
Trucks	0	4	0	1	0	5	1	1	1	0	0	3	0	0	0	0	0	0	0	1	12	1	0	14	0	0	2	1	0	3	25
% Trucks	0	1.0	0	5.0	0	1.1	3.7	1.6	1.0	0	0	1.6	0	0	0	0	0	0	0	0.8	2.5	1.0	0	2.0	0	0	5.7	2.0	0	2.1	1.7
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	3
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	33.3	0	0	0	0	0	0	0	0	0	0	0	0	0.2

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Customer Loyalty Through Client Satisfaction

File Name : U.S_ROUTE_9_W_&_E_W_MAIN_STREET_FRI_555729_08-24-2018
Site Code :
Start Date : 8/24/2018
Page No : 1

Groups Printed- Lights - Buses - Trucks - Pedestrians

	N LIBERTY DR From North					E MAIN ST From East					S LIBERTY DR From South					W MAIN ST From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
04:00 PM	9	80	3	0	92	7	7	28	1	43	32	116	16	0	164	14	8	11	0	33	332
04:15 PM	6	91	2	6	105	5	14	30	0	49	37	117	25	0	179	24	7	16	0	47	380
04:30 PM	14	82	3	1	100	6	5	29	0	40	40	117	14	0	171	15	10	22	0	47	358
04:45 PM	8	92	5	2	107	8	9	26	1	44	40	107	26	0	173	11	12	14	0	37	361
Total	37	345	13	9	404	26	35	113	2	176	149	457	81	0	687	64	37	63	0	164	1431
05:00 PM	4	87	4	0	95	4	9	23	0	36	25	106	21	1	153	13	10	15	2	40	324
05:15 PM	4	87	2	1	94	6	10	23	0	39	44	101	32	0	177	13	10	11	0	34	344
05:30 PM	17	82	4	0	103	2	8	37	0	47	33	110	23	0	166	19	9	10	0	38	354
05:45 PM	3	69	10	0	82	4	8	19	0	31	36	102	20	0	158	16	10	7	1	34	305
Total	28	325	20	1	374	16	35	102	0	153	138	419	96	1	654	61	39	43	3	146	1327
06:00 PM	8	84	6	0	98	5	10	25	0	40	31	96	17	2	146	15	11	7	0	33	317
06:15 PM	5	92	10	0	107	6	5	35	0	46	39	101	17	0	157	17	12	13	0	42	352
06:30 PM	4	88	5	0	97	4	10	28	0	42	32	88	26	0	146	13	9	6	0	28	313
06:45 PM	9	103	9	0	121	4	14	28	2	48	39	98	19	2	158	9	14	9	0	32	359
Total	26	367	30	0	423	19	39	116	2	176	141	383	79	4	607	54	46	35	0	135	1341
Grand Total	91	1037	63	10	1201	61	109	331	4	505	428	1259	256	5	1948	179	122	141	3	445	4099
Apprch %	7.6	86.3	5.2	0.8		12.1	21.6	65.5	0.8		22	64.6	13.1	0.3		40.2	27.4	31.7	0.7		
Total %	2.2	25.3	1.5	0.2	29.3	1.5	2.7	8.1	0.1	12.3	10.4	30.7	6.2	0.1	47.5	4.4	3	3.4	0.1	10.9	
Lights	90	1004	62	0	1156	57	107	327	0	491	424	1225	256	0	1905	177	122	140	0	439	3991
% Lights	98.9	96.8	98.4	0	96.3	93.4	98.2	98.8	0	97.2	99.1	97.3	100	0	97.8	98.9	100	99.3	0	98.7	97.4
Buses	0	6	0	0	6	1	0	2	0	3	2	4	0	0	6	1	0	1	0	2	17
% Buses	0	0.6	0	0	0.5	1.6	0	0.6	0	0.6	0.5	0.3	0	0	0.3	0.6	0	0.7	0	0.4	0.4
Trucks	1	27	1	0	29	3	2	2	0	7	2	30	0	0	32	1	0	0	0	1	69
% Trucks	1.1	2.6	1.6	0	2.4	4.9	1.8	0.6	0	1.4	0.5	2.4	0	0	1.6	0.6	0	0	0	0.2	1.7
Pedestrians	0	0	0	10	10	0	0	0	4	4	0	0	0	5	5	0	0	0	3	3	22
% Pedestrians	0	0	0	100	0.8	0	0	0	100	0.8	0	0	0	100	0.3	0	0	0	100	0.7	0.5

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Customer Loyalty Through Client Satisfaction

File Name : U.S_ROUTE_9_W_&_E_W_MAIN_STREET_FRI_555729_08-24-2018
Site Code :
Start Date : 8/24/2018
Page No : 2

	N LIBERTY DR From North					E MAIN ST From East					S LIBERTY DR From South					W MAIN ST From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 06:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	9	80	3	0	92	7	7	28	1	43	32	116	16	0	164	14	8	11	0	33	332
04:15 PM	6	91	2	6	105	5	14	30	0	49	37	117	25	0	179	24	7	16	0	47	380
04:30 PM	14	82	3	1	100	6	5	29	0	40	40	117	14	0	171	15	10	22	0	47	358
04:45 PM	8	92	5	2	107	8	9	26	1	44	40	107	26	0	173	11	12	14	0	37	361
Total Volume	37	345	13	9	404	26	35	113	2	176	149	457	81	0	687	64	37	63	0	164	1431
% App. Total	9.2	85.4	3.2	2.2		14.8	19.9	64.2	1.1		21.7	66.5	11.8	0		39	22.6	38.4	0		
PHF	.661	.938	.650	.375	.944	.813	.625	.942	.500	.898	.931	.976	.779	.000	.959	.667	.771	.716	.000	.872	.941
Lights	37	327	12	0	376	23	34	112	0	169	147	443	81	0	671	62	37	62	0	161	1377
% Lights	100	94.8	92.3	0	93.1	88.5	97.1	99.1	0	96.0	98.7	96.9	100	0	97.7	96.9	100	98.4	0	98.2	96.2
Buses	0	2	0	0	2	1	0	1	0	2	1	1	0	0	2	1	0	1	0	2	8
% Buses	0	0.6	0	0	0.5	3.8	0	0.9	0	1.1	0.7	0.2	0	0	0.3	1.6	0	1.6	0	1.2	0.6
Trucks	0	16	1	0	17	2	1	0	0	3	1	13	0	0	14	1	0	0	0	1	35
% Trucks	0	4.6	7.7	0	4.2	7.7	2.9	0	0	1.7	0.7	2.8	0	0	2.0	1.6	0	0	0	0.6	2.4
Pedestrians	0	0	0	9	9	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	11
% Pedestrians	0	0	0	100	2.2	0	0	0	100	1.1	0	0	0	0	0	0	0	0	0	0	0.8

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Customer Loyalty Through Client Satisfaction

File Name : U.S_ROUTE_9_W_&_E_W_MAIN_STREET_SAT_555683_08-25-2018
Site Code :
Start Date : 8/25/2018
Page No : 1

Groups Printed- Lights - Buses - Trucks - Pedestrians

	N liberty dr From North					E main street From East					S liberty dr From South					W main street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
10:00 AM	6	80	6	0	92	3	11	24	0	38	14	62	18	0	94	19	4	10	0	33	257
10:15 AM	8	81	3	1	93	2	7	35	0	44	19	78	28	0	125	18	3	7	0	28	290
10:30 AM	11	85	3	0	99	3	9	36	1	49	28	81	18	0	127	13	2	4	4	23	298
10:45 AM	13	78	1	1	93	0	7	30	2	39	23	86	21	0	130	16	6	13	2	37	299
Total	38	324	13	2	377	8	34	125	3	170	84	307	85	0	476	66	15	34	6	121	1144
11:00 AM	5	100	3	1	109	3	9	12	0	24	28	84	16	0	128	17	9	5	0	31	292
11:15 AM	8	87	4	0	99	5	10	20	0	35	33	96	16	0	145	15	9	5	0	29	308
11:30 AM	10	82	2	0	94	5	9	23	2	39	28	91	15	0	134	30	8	6	0	44	311
11:45 AM	7	85	4	1	97	2	9	16	0	27	27	79	18	0	124	22	11	9	0	42	290
Total	30	354	13	2	399	15	37	71	2	125	116	350	65	0	531	84	37	25	0	146	1201
12:00 PM	9	93	5	2	109	8	6	12	0	26	43	104	26	0	173	17	10	6	0	33	341
12:15 PM	4	81	2	1	88	3	3	20	0	26	43	95	22	0	160	12	12	6	0	30	304
12:30 PM	8	85	5	0	98	3	8	29	0	40	41	109	28	0	178	18	15	12	0	45	361
12:45 PM	5	80	7	0	92	5	6	24	0	35	35	92	13	0	140	15	18	7	0	40	307
Total	26	339	19	3	387	19	23	85	0	127	162	400	89	0	651	62	55	31	0	148	1313
01:00 PM	5	80	6	0	91	0	7	26	0	33	51	91	18	0	160	14	24	8	0	46	330
01:15 PM	5	96	7	0	108	2	10	24	0	36	49	111	17	0	177	22	18	11	0	51	372
01:30 PM	10	65	5	0	80	1	4	24	1	30	30	106	21	0	157	17	16	5	0	38	305
01:45 PM	6	74	3	0	83	7	5	29	0	41	34	80	11	0	125	13	3	7	1	24	273
Total	26	315	21	0	362	10	26	103	1	140	164	388	67	0	619	66	61	31	1	159	1280
Grand Total	120	1332	66	7	1525	52	120	384	6	562	526	1445	306	0	2277	278	168	121	7	574	4938
Apprch %	7.9	87.3	4.3	0.5		9.3	21.4	68.3	1.1		23.1	63.5	13.4	0		48.4	29.3	21.1	1.2		
Total %	2.4	27	1.3	0.1	30.9	1.1	2.4	7.8	0.1	11.4	10.7	29.3	6.2	0	46.1	5.6	3.4	2.5	0.1	11.6	
Lights	118	1305	65	0	1488	52	117	382	0	551	522	1419	304	0	2245	274	166	121	0	561	4845
% Lights	98.3	98	98.5	0	97.6	100	97.5	99.5	0	98	99.2	98.2	99.3	0	98.6	98.6	98.8	100	0	97.7	98.1
Buses	0	2	1	0	3	0	0	1	0	1	1	4	0	0	5	0	0	0	0	0	9
% Buses	0	0.2	1.5	0	0.2	0	0	0.3	0	0.2	0.2	0.3	0	0	0.2	0	0	0	0	0	0.2
Trucks	2	25	0	0	27	0	3	1	0	4	3	22	2	0	27	4	2	0	0	6	64
% Trucks	1.7	1.9	0	0	1.8	0	2.5	0.3	0	0.7	0.6	1.5	0.7	0	1.2	1.4	1.2	0	0	1	1.3
Pedestrians	0	0	0	7	7	0	0	0	6	6	0	0	0	0	0	0	0	0	7	7	20
% Pedestrians	0	0	0	100	0.5	0	0	0	100	1.1	0	0	0	0	0	0	0	0	100	1.2	0.4

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Valhalla, NY 10595

Customer Loyalty Through Client Satisfaction

File Name : U.S_ROUTE_9_W_&_E_W_MAIN_STREET_SAT_555683_08-25-2018
Site Code :
Start Date : 8/25/2018
Page No : 2

	N liberty dr From North					E main street From East					S liberty dr From South					W main street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:30 PM																					
12:30 PM	8	85	5	0	98	3	8	29	0	40	41	109	28	0	178	18	15	12	0	45	361
12:45 PM	5	80	7	0	92	5	6	24	0	35	35	92	13	0	140	15	18	7	0	40	307
01:00 PM	5	80	6	0	91	0	7	26	0	33	51	91	18	0	160	14	24	8	0	46	330
01:15 PM	5	96	7	0	108	2	10	24	0	36	49	111	17	0	177	22	18	11	0	51	372
Total Volume	23	341	25	0	389	10	31	103	0	144	176	403	76	0	655	69	75	38	0	182	1370
% App. Total	5.9	87.7	6.4	0		6.9	21.5	71.5	0		26.9	61.5	11.6	0		37.9	41.2	20.9	0		
PHF	.719	.888	.893	.000	.900	.500	.775	.888	.000	.900	.863	.908	.679	.000	.920	.784	.781	.792	.000	.892	.921
Lights	23	336	25	0	384	10	31	103	0	144	176	397	76	0	649	69	75	38	0	182	1359
% Lights	100	98.5	100	0	98.7	100	100	100	0	100	100	98.5	100	0	99.1	100	100	100	0	100	99.2
Buses	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
% Buses	0	0	0	0	0	0	0	0	0	0	0	0.2	0	0	0.2	0	0	0	0	0	0.1
Trucks	0	5	0	0	5	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	10
% Trucks	0	1.5	0	0	1.3	0	0	0	0	0	0	1.2	0	0	0.8	0	0	0	0	0	0.7
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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400 Columbus Avenue - Suite 180E
Valhalla, NY 10595

Customer Loyalty Through Client Satisfaction

File Name : 2.U.S_ROUTE_9_W_&_TOMKINS_AVENUE_THURS_571660_10-04-2018
Site Code :
Start Date : 10/4/2018
Page No : 1

Groups Printed- Lights - Buses - Trucks - Pedestrians

	N LIBERTY DR From North					TOMKINS AVENUE From East					N LIBERTY DR From South					From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
06:30 AM	0	52	5	0	57	4	0	7	0	11	2	35	0	0	37	0	0	0	0	0	105
06:45 AM	0	63	7	0	70	1	0	10	0	11	7	40	0	0	47	0	0	0	0	0	128
Total	0	115	12	0	127	5	0	17	0	22	9	75	0	0	84	0	0	0	0	0	233
07:00 AM	0	70	1	0	71	4	0	16	0	20	11	55	0	0	66	0	0	0	0	0	157
07:15 AM	0	80	8	0	88	4	0	14	0	18	3	45	0	0	48	0	0	0	0	0	154
07:30 AM	0	98	4	0	102	2	0	16	0	18	10	57	0	0	67	0	0	0	0	0	187
07:45 AM	0	112	11	0	123	7	0	14	0	21	6	33	0	0	39	0	0	0	0	0	183
Total	0	360	24	0	384	17	0	60	0	77	30	190	0	0	220	0	0	0	0	0	681
08:00 AM	0	88	7	0	95	5	0	12	1	18	12	36	0	0	48	0	0	0	0	0	161
08:15 AM	0	92	6	0	98	5	0	21	0	26	7	53	0	0	60	0	0	0	0	0	184
08:30 AM	0	65	4	0	69	6	0	11	0	17	12	63	0	0	75	0	0	0	0	0	161
08:45 AM	0	96	10	0	106	7	0	19	0	26	10	58	0	2	70	0	0	0	0	0	202
Total	0	341	27	0	368	23	0	63	1	87	41	210	0	2	253	0	0	0	0	0	708
09:00 AM	0	76	4	0	80	7	0	21	1	29	14	55	0	0	69	0	0	0	0	0	178
09:15 AM	0	67	5	0	72	5	0	20	0	25	14	56	0	0	70	0	0	0	0	0	167
Grand Total	0	959	72	0	1031	57	0	181	2	240	108	586	0	2	696	0	0	0	0	0	1967
Apprch %	0	93	7	0		23.8	0	75.4	0.8		15.5	84.2	0	0.3		0	0	0	0		
Total %	0	48.8	3.7	0	52.4	2.9	0	9.2	0.1	12.2	5.5	29.8	0	0.1	35.4	0	0	0	0	0	
Lights	0	864	66	0	930	43	0	166	0	209	102	479	0	0	581	0	0	0	0	0	1720
% Lights	0	90.1	91.7	0	90.2	75.4	0	91.7	0	87.1	94.4	81.7	0	0	83.5	0	0	0	0	0	87.4
Buses	0	32	5	0	37	11	0	10	0	21	3	54	0	0	57	0	0	0	0	0	115
% Buses	0	3.3	6.9	0	3.6	19.3	0	5.5	0	8.8	2.8	9.2	0	0	8.2	0	0	0	0	0	5.8
Trucks	0	63	1	0	64	3	0	5	0	8	3	53	0	0	56	0	0	0	0	0	128
% Trucks	0	6.6	1.4	0	6.2	5.3	0	2.8	0	3.3	2.8	9	0	0	8	0	0	0	0	0	6.5
Pedestrians	0	0	0	0	0	0	0	0	2	2	0	0	0	2	2	0	0	0	0	0	4
% Pedestrians	0	0	0	0	0	0	0	0	100	0.8	0	0	0	100	0.3	0	0	0	0	0	0.2

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Customer Loyalty Through Client Satisfaction

File Name : 2.U.S_ROUTE_9_W_&_TOMKINS_AVENUE_THURS_571660_10-04-2018
Site Code :
Start Date : 10/4/2018

	N LIBERTY DR From North					TOMKINS AVENUE From East					N LIBERTY DR From South					From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 09:15 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:15 AM																					
08:15 AM	0	92	6	0	98	5	0	21	0	26	7	53	0	0	60	0	0	0	0	0	184
08:30 AM	0	65	4	0	69	6	0	11	0	17	12	63	0	0	75	0	0	0	0	0	161
08:45 AM	0	96	10	0	106	7	0	19	0	26	10	58	0	2	70	0	0	0	0	0	202
09:00 AM	0	76	4	0	80	7	0	21	1	29	14	55	0	0	69	0	0	0	0	0	178
Total Volume	0	329	24	0	353	25	0	72	1	98	43	229	0	2	274	0	0	0	0	0	725
% App. Total	0	93.2	6.8	0		25.5	0	73.5	1		15.7	83.6	0	0.7		0	0	0	0		
PHF	.000	.857	.600	.000	.833	.893	.000	.857	.250	.845	.768	.909	.000	.250	.913	.000	.000	.000	.000	.000	.897
Lights	0	296	21	0	317	19	0	67	0	86	42	189	0	0	231	0	0	0	0	0	634
% Lights	0	90.0	87.5	0	89.8	76.0	0	93.1	0	87.8	97.7	82.5	0	0	84.3	0	0	0	0	0	87.4
Buses	0	11	3	0	14	5	0	4	0	9	0	19	0	0	19	0	0	0	0	0	42
% Buses	0	3.3	12.5	0	4.0	20.0	0	5.6	0	9.2	0	8.3	0	0	6.9	0	0	0	0	0	5.8
Trucks	0	22	0	0	22	1	0	1	0	2	1	21	0	0	22	0	0	0	0	0	46
% Trucks	0	6.7	0	0	6.2	4.0	0	1.4	0	2.0	2.3	9.2	0	0	8.0	0	0	0	0	0	6.3
Pedestrians	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2	0	0	0	0	0	3
% Pedestrians	0	0	0	0	0	0	0	0	100	1.0	0	0	0	100	0.7	0	0	0	0	0	0.4

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Customer Loyalty Through Client Satisfaction

File Name : 2.U.S_ROUTE_9_W_&_TOMKINS_AVENUE_THURS_571660_10-04-2018
Site Code :
Start Date : 10/4/2018
Page No : 1

Groups Printed- Lights - Buses - Trucks - Pedestrians

	N LIBERTY DR From North					TOMKINS AVENUE From East					N LIBERTY DR From South					From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
03:30 PM	0	66	8	0	74	17	0	12	0	29	18	102	0	0	120	0	0	0	0	0	223
03:45 PM	0	65	7	0	72	16	0	9	0	25	17	95	0	0	112	0	0	0	0	0	209
Total	0	131	15	0	146	33	0	21	0	54	35	197	0	0	232	0	0	0	0	0	432
04:00 PM	0	70	11	0	81	9	0	11	0	20	9	90	0	0	99	0	0	0	0	0	200
04:15 PM	0	69	5	0	74	11	0	16	0	27	25	97	0	0	122	0	0	0	0	0	223
04:30 PM	0	90	5	0	95	28	0	12	0	40	25	96	0	0	121	0	0	0	0	0	256
04:45 PM	0	76	6	0	82	15	0	8	0	23	14	122	0	0	136	0	0	0	0	0	241
Total	0	305	27	0	332	63	0	47	0	110	73	405	0	0	478	0	0	0	0	0	920
05:00 PM	0	90	6	0	96	18	0	6	0	24	14	101	0	0	115	0	0	0	0	0	235
05:15 PM	0	60	2	0	62	8	0	13	0	21	12	97	0	0	109	0	0	0	0	0	192
05:30 PM	0	71	6	0	77	7	0	11	0	18	16	85	0	0	101	0	0	0	0	0	196
05:45 PM	0	86	5	0	91	7	0	10	0	17	13	101	0	0	114	0	0	0	0	0	222
Total	0	307	19	0	326	40	0	40	0	80	55	384	0	0	439	0	0	0	0	0	845
06:00 PM	0	64	3	0	67	11	0	11	0	22	18	77	0	0	95	0	0	0	0	0	184
06:15 PM	0	61	4	0	65	9	0	11	0	20	22	81	0	0	103	0	0	0	0	0	188
Grand Total	0	868	68	0	936	156	0	130	0	286	203	1144	0	0	1347	0	0	0	0	0	2569
Apprch %	0	92.7	7.3	0		54.5	0	45.5	0		15.1	84.9	0	0		0	0	0	0		
Total %	0	33.8	2.6	0	36.4	6.1	0	5.1	0	11.1	7.9	44.5	0	0	52.4	0	0	0	0	0	
Lights	0	813	61	0	874	152	0	125	0	277	199	1085	0	0	1284	0	0	0	0	0	2435
% Lights	0	93.7	89.7	0	93.4	97.4	0	96.2	0	96.9	98	94.8	0	0	95.3	0	0	0	0	0	94.8
Buses	0	20	7	0	27	4	0	3	0	7	1	20	0	0	21	0	0	0	0	0	55
% Buses	0	2.3	10.3	0	2.9	2.6	0	2.3	0	2.4	0.5	1.7	0	0	1.6	0	0	0	0	0	2.1
Trucks	0	35	0	0	35	0	0	2	0	2	3	39	0	0	42	0	0	0	0	0	79
% Trucks	0	4	0	0	3.7	0	0	1.5	0	0.7	1.5	3.4	0	0	3.1	0	0	0	0	0	3.1
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Valhalla, NY 10595

Customer Loyalty Through Client Satisfaction

File Name : 2.U.S_ROUTE_9_W_&_TOMKINS_AVENUE_THURS_571660_10-04-2018
Site Code :
Start Date : 10/4/2018

	N LIBERTY DR From North					TOMKINS AVENUE From East					N LIBERTY DR From South					From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 03:30 PM to 06:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	0	69	5	0	74	11	0	16	0	27	25	97	0	0	122	0	0	0	0	0	223
04:30 PM	0	90	5	0	95	28	0	12	0	40	25	96	0	0	121	0	0	0	0	0	256
04:45 PM	0	76	6	0	82	15	0	8	0	23	14	122	0	0	136	0	0	0	0	0	241
05:00 PM	0	90	6	0	96	18	0	6	0	24	14	101	0	0	115	0	0	0	0	0	235
Total Volume	0	325	22	0	347	72	0	42	0	114	78	416	0	0	494	0	0	0	0	0	955
% App. Total	0	93.7	6.3	0		63.2	0	36.8	0		15.8	84.2	0	0		0	0	0	0		
PHF	.000	.903	.917	.000	.904	.643	.000	.656	.000	.713	.780	.852	.000	.000	.908	.000	.000	.000	.000	.000	.933
Lights	0	314	22	0	336	72	0	41	0	113	78	402	0	0	480	0	0	0	0	0	929
% Lights	0	96.6	100	0	96.8	100	0	97.6	0	99.1	100	96.6	0	0	97.2	0	0	0	0	0	97.3
Buses	0	5	0	0	5	0	0	1	0	1	0	2	0	0	2	0	0	0	0	0	8
% Buses	0	1.5	0	0	1.4	0	0	2.4	0	0.9	0	0.5	0	0	0.4	0	0	0	0	0	0.8
Trucks	0	6	0	0	6	0	0	0	0	0	0	12	0	0	12	0	0	0	0	0	18
% Trucks	0	1.8	0	0	1.7	0	0	0	0	0	0	2.9	0	0	2.4	0	0	0	0	0	1.9
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Customer Loyalty Through Client Satisfaction

File Name : U.S_ROUTE_9_W_&_TOMKINS_AVENUE_FRI_555725_08-24-2018
Site Code :
Start Date : 8/24/2018
Page No : 1

Groups Printed- Lights - Buses - Trucks - Pedestrians

	N LIBERTY DR From North					TOMKINS AVE From East					N LIBERTY DR From South					From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
04:00 PM	0	82	3	0	85	8	0	17	0	25	16	104	0	0	120	0	0	0	0	0	230
04:15 PM	0	69	7	0	76	21	0	15	0	36	20	108	0	0	128	0	0	0	0	0	240
04:30 PM	0	75	4	0	79	18	0	19	0	37	24	97	0	0	121	0	0	0	0	0	237
04:45 PM	0	78	6	0	84	9	0	9	0	18	18	98	0	0	116	0	0	0	0	0	218
Total	0	304	20	0	324	56	0	60	0	116	78	407	0	0	485	0	0	0	0	0	925
05:00 PM	0	78	13	0	91	7	0	14	0	21	18	96	0	0	114	0	0	0	0	0	226
05:15 PM	0	74	8	0	82	10	0	10	0	20	11	107	0	0	118	0	0	0	0	0	220
05:30 PM	0	61	5	0	66	11	0	27	0	38	22	90	0	0	112	0	0	0	0	0	216
05:45 PM	0	63	11	0	74	13	0	5	0	18	17	72	0	0	89	0	0	0	0	0	181
Total	0	276	37	0	313	41	0	56	0	97	68	365	0	0	433	0	0	0	0	0	843
06:00 PM	0	76	3	0	79	19	0	16	0	35	15	97	0	0	112	0	0	0	0	0	226
06:15 PM	0	84	7	0	91	13	0	12	0	25	19	87	0	0	106	0	0	0	0	0	222
06:30 PM	0	79	8	0	87	6	0	9	0	15	13	76	0	0	89	0	0	0	0	0	191
06:45 PM	0	93	4	0	97	11	0	10	0	21	14	78	0	0	92	0	0	0	0	0	210
Total	0	332	22	0	354	49	0	47	0	96	61	338	0	0	399	0	0	0	0	0	849
Grand Total	0	912	79	0	991	146	0	163	0	309	207	1110	0	0	1317	0	0	0	0	0	2617
Apprch %	0	92	8	0		47.2	0	52.8	0		15.7	84.3	0	0		0	0	0	0		
Total %	0	34.8	3	0	37.9	5.6	0	6.2	0	11.8	7.9	42.4	0	0	50.3	0	0	0	0	0	
Lights	0	879	78	0	957	144	0	159	0	303	203	1075	0	0	1278	0	0	0	0	0	2538
% Lights	0	96.4	98.7	0	96.6	98.6	0	97.5	0	98.1	98.1	96.8	0	0	97	0	0	0	0	0	97
Buses	0	4	0	0	4	0	0	1	0	1	1	6	0	0	7	0	0	0	0	0	12
% Buses	0	0.4	0	0	0.4	0	0	0.6	0	0.3	0.5	0.5	0	0	0.5	0	0	0	0	0	0.5
Trucks	0	29	1	0	30	2	0	3	0	5	3	29	0	0	32	0	0	0	0	0	67
% Trucks	0	3.2	1.3	0	3	1.4	0	1.8	0	1.6	1.4	2.6	0	0	2.4	0	0	0	0	0	2.6
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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400 Columbus Avenue - Suite 180E
Valhalla, NY 10595

Customer Loyalty Through Client Satisfaction

File Name : U.S_ROUTE_9_W_&_TOMKINS_AVENUE_FRI_555725_08-24-2018
Site Code :
Start Date : 8/24/2018
Page No : 2

	N LIBERTY DR From North					TOMKINS AVE From East					N LIBERTY DR From South					From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 06:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	82	3	0	85	8	0	17	0	25	16	104	0	0	120	0	0	0	0	0	230
04:15 PM	0	69	7	0	76	21	0	15	0	36	20	108	0	0	128	0	0	0	0	0	240
04:30 PM	0	75	4	0	79	18	0	19	0	37	24	97	0	0	121	0	0	0	0	0	237
04:45 PM	0	78	6	0	84	9	0	9	0	18	18	98	0	0	116	0	0	0	0	0	218
Total Volume	0	304	20	0	324	56	0	60	0	116	78	407	0	0	485	0	0	0	0	0	925
% App. Total	0	93.8	6.2	0		48.3	0	51.7	0		16.1	83.9	0	0		0	0	0	0		
PHF	.000	.927	.714	.000	.953	.667	.000	.789	.000	.784	.813	.942	.000	.000	.947	.000	.000	.000	.000	.000	.964
Lights	0	285	19	0	304	55	0	57	0	112	76	390	0	0	466	0	0	0	0	0	882
% Lights	0	93.8	95.0	0	93.8	98.2	0	95.0	0	96.6	97.4	95.8	0	0	96.1	0	0	0	0	0	95.4
Buses	0	2	0	0	2	0	0	1	0	1	1	2	0	0	3	0	0	0	0	0	6
% Buses	0	0.7	0	0	0.6	0	0	1.7	0	0.9	1.3	0.5	0	0	0.6	0	0	0	0	0	0.6
Trucks	0	17	1	0	18	1	0	2	0	3	1	15	0	0	16	0	0	0	0	0	37
% Trucks	0	5.6	5.0	0	5.6	1.8	0	3.3	0	2.6	1.3	3.7	0	0	3.3	0	0	0	0	0	4.0
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Valhalla, NY 10595

Customer Loyalty Through Client Satisfaction

File Name : U.S_ROUTE_9W_&_TOMKINS_AVENUE_SAT_555692_08-25-2018
Site Code :
Start Date : 8/25/2018
Page No : 1

Groups Printed- Lights - Buses - Trucks - Pedestrians

	N liberty dr From North					Tomkins Avenue From East					N liberty dr From South					From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
10:00 AM	0	60	3	0	63	3	0	14	0	17	12	55	0	0	67	0	0	0	0	0	147
10:15 AM	0	71	5	0	76	8	0	18	0	26	9	60	0	0	69	0	0	0	0	0	171
10:30 AM	0	71	5	0	76	5	0	11	0	16	15	65	0	0	80	0	0	0	0	0	172
10:45 AM	0	74	5	0	79	5	0	15	0	20	17	73	0	0	90	0	0	0	0	0	189
Total	0	276	18	0	294	21	0	58	0	79	53	253	0	0	306	0	0	0	0	0	679
11:00 AM	0	85	5	0	90	11	0	9	0	20	10	70	0	0	80	0	0	0	0	0	190
11:15 AM	0	71	6	0	77	4	0	11	0	15	14	73	0	0	87	0	0	0	0	0	179
11:30 AM	0	68	4	0	72	10	0	11	1	22	17	73	0	0	90	0	0	0	0	0	184
11:45 AM	0	78	6	0	84	9	0	9	0	18	12	70	0	0	82	0	0	0	0	0	184
Total	0	302	21	0	323	34	0	40	1	75	53	286	0	0	339	0	0	0	0	0	737
12:00 PM	0	65	5	0	70	11	0	20	0	31	13	92	0	0	105	0	0	0	0	0	206
12:15 PM	0	76	7	0	83	7	0	9	0	16	12	69	0	0	81	0	0	0	0	0	180
12:30 PM	0	77	9	0	86	4	0	10	0	14	13	105	0	0	118	0	0	0	0	0	218
12:45 PM	0	70	6	0	76	11	0	12	0	23	17	71	0	0	88	0	0	0	0	0	187
Total	0	288	27	0	315	33	0	51	0	84	55	337	0	0	392	0	0	0	0	0	791
01:00 PM	0	66	7	0	73	12	0	17	0	29	13	76	0	0	89	0	0	0	0	0	191
01:15 PM	0	67	13	0	80	9	0	10	0	19	24	83	0	0	107	0	0	0	0	0	206
01:30 PM	0	57	6	0	63	11	0	12	0	23	22	81	0	0	103	0	0	0	0	0	189
01:45 PM	0	72	5	0	77	7	0	14	0	21	12	71	0	0	83	0	0	0	0	0	181
Total	0	262	31	0	293	39	0	53	0	92	71	311	0	0	382	0	0	0	0	0	767
Grand Total	0	1128	97	0	1225	127	0	202	1	330	232	1187	0	0	1419	0	0	0	0	0	2974
Apprch %	0	92.1	7.9	0		38.5	0	61.2	0.3		16.3	83.7	0	0		0	0	0	0		
Total %	0	37.9	3.3	0	41.2	4.3	0	6.8	0	11.1	7.8	39.9	0	0	47.7	0	0	0	0	0	
Lights	0	1101	94	0	1195	125	0	199	0	324	230	1161	0	0	1391	0	0	0	0	0	2910
% Lights	0	97.6	96.9	0	97.6	98.4	0	98.5	0	98.2	99.1	97.8	0	0	98	0	0	0	0	0	97.8
Buses	0	3	1	0	4	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	8
% Buses	0	0.3	1	0	0.3	0	0	0	0	0	0	0.3	0	0	0.3	0	0	0	0	0	0.3
Trucks	0	24	2	0	26	2	0	3	0	5	2	22	0	0	24	0	0	0	0	0	55
% Trucks	0	2.1	2.1	0	2.1	1.6	0	1.5	0	1.5	0.9	1.9	0	0	1.7	0	0	0	0	0	1.8
Pedestrians	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1
% Pedestrians	0	0	0	0	0	0	0	0	100	0.3	0	0	0	0	0	0	0	0	0	0	0

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Customer Loyalty Through Client Satisfaction

File Name : U.S_ROUTE_9W_&_TOMKINS_AVENUE_SAT_555692_08-25-2018
Site Code :
Start Date : 8/25/2018
Page No : 2

	N liberty dr From North					Tomkins Avenue From East					N liberty dr From South					From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:30 PM																					
12:30 PM	0	77	9	0	86	4	0	10	0	14	13	105	0	0	118	0	0	0	0	0	218
12:45 PM	0	70	6	0	76	11	0	12	0	23	17	71	0	0	88	0	0	0	0	0	187
01:00 PM	0	66	7	0	73	12	0	17	0	29	13	76	0	0	89	0	0	0	0	0	191
01:15 PM	0	67	13	0	80	9	0	10	0	19	24	83	0	0	107	0	0	0	0	0	206
Total Volume	0	280	35	0	315	36	0	49	0	85	67	335	0	0	402	0	0	0	0	0	802
% App. Total	0	88.9	11.1	0		42.4	0	57.6	0		16.7	83.3	0	0		0	0	0	0		
PHF	.000	.909	.673	.000	.916	.750	.000	.721	.000	.733	.698	.798	.000	.000	.852	.000	.000	.000	.000	.000	.920
Lights	0	275	34	0	309	36	0	49	0	85	66	329	0	0	395	0	0	0	0	0	789
% Lights	0	98.2	97.1	0	98.1	100	0	100	0	100	98.5	98.2	0	0	98.3	0	0	0	0	0	98.4
Buses	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
% Buses	0	0	0	0	0	0	0	0	0	0	0	0.6	0	0	0.5	0	0	0	0	0	0.2
Trucks	0	5	1	0	6	0	0	0	0	0	1	4	0	0	5	0	0	0	0	0	11
% Trucks	0	1.8	2.9	0	1.9	0	0	0	0	0	1.5	1.2	0	0	1.2	0	0	0	0	0	1.4
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Customer Loyalty Through Client Satisfaction

File Name : 3.TOMKINS_AVENUE_&WOOD_AVENUE_FARLEY_DRIVE_THURS_571661_10-04-2018
Site Code :
Start Date : 10/4/2018
Page No : 1

Groups Printed- Lights - Buses - Trucks - Pedestrians

	FARLEY DR From North					TOMKINS AVE From East					WOOD AVE From South					TOMKINS AVE From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
06:30 AM	3	2	1	0	6	1	4	1	0	6	0	0	0	0	0	1	4	0	0	5	17
06:45 AM	4	4	0	3	11	0	3	1	0	4	0	1	0	0	1	1	13	2	1	17	33
Total	7	6	1	3	17	1	7	2	0	10	0	1	0	0	1	2	17	2	1	22	50
07:00 AM	5	6	1	1	13	0	4	1	0	5	1	0	0	1	2	1	5	3	0	9	29
07:15 AM	5	6	0	0	11	1	7	1	0	9	0	0	2	0	2	2	8	1	0	11	33
07:30 AM	7	1	2	3	13	0	7	3	1	11	2	2	2	0	6	1	10	2	1	14	44
07:45 AM	7	2	1	0	10	0	7	0	0	7	0	0	4	0	4	1	18	1	0	20	41
Total	24	15	4	4	47	1	25	5	1	32	3	2	8	1	14	5	41	7	1	54	147
08:00 AM	1	2	3	0	6	0	8	1	0	9	1	3	3	0	7	1	11	2	0	14	36
08:15 AM	10	2	0	1	13	1	5	2	1	9	1	1	0	0	2	1	9	2	1	13	37
08:30 AM	6	4	1	0	11	1	7	0	0	8	1	2	0	0	3	0	8	2	0	10	32
08:45 AM	7	3	1	0	11	1	8	2	0	11	0	1	3	0	4	1	10	6	0	17	43
Total	24	11	5	1	41	3	28	5	1	37	3	7	6	0	16	3	38	12	1	54	148
09:00 AM	11	3	1	0	15	0	9	0	0	9	1	0	2	0	3	0	5	10	0	15	42
09:15 AM	7	5	1	0	13	1	11	2	0	14	0	1	1	0	2	1	8	4	0	13	42
Grand Total	73	40	12	8	133	6	80	14	2	102	7	11	17	1	36	11	109	35	3	158	429
Apprch %	54.9	30.1	9	6		5.9	78.4	13.7	2		19.4	30.6	47.2	2.8		7	69	22.2	1.9		
Total %	17	9.3	2.8	1.9	31	1.4	18.6	3.3	0.5	23.8	1.6	2.6	4	0.2	8.4	2.6	25.4	8.2	0.7	36.8	
Lights	68	37	12	0	117	4	64	10	0	78	5	11	9	0	25	8	105	30	0	143	363
% Lights	93.2	92.5	100	0	88	66.7	80	71.4	0	76.5	71.4	100	52.9	0	69.4	72.7	96.3	85.7	0	90.5	84.6
Buses	5	3	0	0	8	2	12	3	0	17	2	0	3	0	5	2	3	2	0	7	37
% Buses	6.8	7.5	0	0	6	33.3	15	21.4	0	16.7	28.6	0	17.6	0	13.9	18.2	2.8	5.7	0	4.4	8.6
Trucks	0	0	0	0	0	0	4	1	0	5	0	0	5	0	5	1	1	3	0	5	15
% Trucks	0	0	0	0	0	0	5	7.1	0	4.9	0	0	29.4	0	13.9	9.1	0.9	8.6	0	3.2	3.5
Pedestrians	0	0	0	8	8	0	0	0	2	2	0	0	0	1	1	0	0	0	3	3	14
% Pedestrians	0	0	0	100	6	0	0	0	100	2	0	0	0	100	2.8	0	0	0	100	1.9	3.3

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Customer Loyalty Through Client Satisfaction

File Name : 3.TOMKINS_AVENUE_&WOOD_AVENUE_FARLEY_DRIVE_THURS_571661_10-04-2018
Site Code :
Start Date : 10/4/2018
Page No : 2

	FARLEY DR From North					TOMKINS AVE From East					WOOD AVE From South					TOMKINS AVE From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	5	6	0	0	11	1	7	1	0	9	0	0	2	0	2	2	8	1	0	11	33
07:30 AM	7	1	2	3	13	0	7	3	1	11	2	2	2	0	6	1	10	2	1	14	44
07:45 AM	7	2	1	0	10	0	7	0	0	7	0	0	4	0	4	1	18	1	0	20	41
08:00 AM	1	2	3	0	6	0	8	1	0	9	1	3	3	0	7	1	11	2	0	14	36
Total Volume	20	11	6	3	40	1	29	5	1	36	3	5	11	0	19	5	47	6	1	59	154
% App. Total	50	27.5	15	7.5		2.8	80.6	13.9	2.8		15.8	26.3	57.9	0		8.5	79.7	10.2	1.7		
PHF	.714	.458	.500	.250	.769	.250	.906	.417	.250	.818	.375	.417	.688	.000	.679	.625	.653	.750	.250	.738	.875
Lights	18	10	6	0	34	0	23	4	0	27	2	5	6	0	13	4	44	5	0	53	127
% Lights	90.0	90.9	100	0	85.0	0	79.3	80.0	0	75.0	66.7	100	54.5	0	68.4	80.0	93.6	83.3	0	89.8	82.5
Buses	2	1	0	0	3	1	4	1	0	6	1	0	1	0	2	0	2	0	0	2	13
% Buses	10.0	9.1	0	0	7.5	100	13.8	20.0	0	16.7	33.3	0	9.1	0	10.5	0	4.3	0	0	3.4	8.4
Trucks	0	0	0	0	0	0	2	0	0	2	0	0	4	0	4	1	1	1	0	3	9
% Trucks	0	0	0	0	0	0	6.9	0	0	5.6	0	0	36.4	0	21.1	20.0	2.1	16.7	0	5.1	5.8
Pedestrians	0	0	0	3	3	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1	5
% Pedestrians	0	0	0	100	7.5	0	0	0	100	2.8	0	0	0	0	0	0	0	0	100	1.7	3.2

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Customer Loyalty Through Client Satisfaction

File Name : 3.TOMKINS_AVENUE_&WOOD_AVENUE_FARLEY_DRIVE_THURS_571661_10-04-2018
Site Code :
Start Date : 10/4/2018
Page No : 1

Groups Printed- Lights - Buses - Trucks - Pedestrians

	FARLEY DR From North					TOMKINS AVE From East					WOOD AVE From South					TOMKINS AVE From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
03:30 PM	5	3	1	0	9	0	22	1	0	23	2	5	1	0	8	0	13	6	1	20	60
03:45 PM	6	2	0	0	8	3	13	2	0	18	0	6	3	1	10	2	8	7	0	17	53
Total	11	5	1	0	17	3	35	3	0	41	2	11	4	1	18	2	21	13	1	37	113
04:00 PM	3	5	2	0	10	3	14	1	0	18	1	3	3	0	7	3	13	2	0	18	53
04:15 PM	6	1	1	0	8	1	13	2	0	16	1	7	3	0	11	2	12	11	0	25	60
04:30 PM	8	4	2	0	14	0	24	0	0	24	0	1	4	0	5	3	6	8	0	17	60
04:45 PM	5	3	2	0	10	1	15	1	0	17	1	5	3	0	9	1	7	4	0	12	48
Total	22	13	7	0	42	5	66	4	0	75	3	16	13	0	32	9	38	25	0	72	221
05:00 PM	2	1	1	0	4	3	15	1	0	19	0	3	1	0	4	1	8	4	0	13	40
05:15 PM	5	4	0	0	9	4	12	2	0	18	2	7	0	0	9	3	4	6	0	13	49
05:30 PM	5	2	1	0	8	1	8	1	0	10	2	2	3	0	7	1	5	7	0	13	38
05:45 PM	5	4	1	0	10	0	7	0	0	7	3	1	1	0	5	1	6	5	0	12	34
Total	17	11	3	0	31	8	42	4	0	54	7	13	5	0	25	6	23	22	0	51	161
06:00 PM	4	10	4	0	18	2	13	0	0	15	0	5	1	0	6	2	8	6	0	16	55
06:15 PM	2	2	3	0	7	2	11	0	0	13	0	8	2	2	12	1	6	8	0	15	47
Grand Total	56	41	18	0	115	20	167	11	0	198	12	53	25	3	93	20	96	74	1	191	597
Apprch %	48.7	35.7	15.7	0		10.1	84.3	5.6	0		12.9	57	26.9	3.2		10.5	50.3	38.7	0.5		
Total %	9.4	6.9	3	0	19.3	3.4	28	1.8	0	33.2	2	8.9	4.2	0.5	15.6	3.4	16.1	12.4	0.2	32	
Lights	54	41	16	0	111	20	163	10	0	193	11	51	24	0	86	17	91	72	0	180	570
% Lights	96.4	100	88.9	0	96.5	100	97.6	90.9	0	97.5	91.7	96.2	96	0	92.5	85	94.8	97.3	0	94.2	95.5
Buses	1	0	2	0	3	0	4	1	0	5	1	2	1	0	4	3	4	1	0	8	20
% Buses	1.8	0	11.1	0	2.6	0	2.4	9.1	0	2.5	8.3	3.8	4	0	4.3	15	4.2	1.4	0	4.2	3.4
Trucks	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	3
% Trucks	1.8	0	0	0	0.9	0	0	0	0	0	0	0	0	0	0	0	1	1.4	0	1	0.5
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	1	1	4
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	100	3.2	0	0	0	100	0.5	0.7

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Customer Loyalty Through Client Satisfaction

File Name : 3.TOMKINS_AVENUE_&WOOD_AVENUE_FARLEY_DRIVE_THURS_571661_10-04-2018
Site Code :
Start Date : 10/4/2018
Page No : 2

	FARLEY DR From North					TOMKINS AVE From East					WOOD AVE From South					TOMKINS AVE From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 03:30 PM to 06:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 03:30 PM																					
03:30 PM	5	3	1	0	9	0	22	1	0	23	2	5	1	0	8	0	13	6	1	20	60
03:45 PM	6	2	0	0	8	3	13	2	0	18	0	6	3	1	10	2	8	7	0	17	53
04:00 PM	3	5	2	0	10	3	14	1	0	18	1	3	3	0	7	3	13	2	0	18	53
04:15 PM	6	1	1	0	8	1	13	2	0	16	1	7	3	0	11	2	12	11	0	25	60
Total Volume	20	11	4	0	35	7	62	6	0	75	4	21	10	1	36	7	46	26	1	80	226
% App. Total	57.1	31.4	11.4	0		9.3	82.7	8	0		11.1	58.3	27.8	2.8		8.8	57.5	32.5	1.2		
PHF	.833	.550	.500	.000	.875	.583	.705	.750	.000	.815	.500	.750	.833	.250	.818	.583	.885	.591	.250	.800	.942
Lights	19	11	3	0	33	7	58	5	0	70	3	20	9	0	32	4	42	25	0	71	206
% Lights	95.0	100	75.0	0	94.3	100	93.5	83.3	0	93.3	75.0	95.2	90.0	0	88.9	57.1	91.3	96.2	0	88.8	91.2
Buses	1	0	1	0	2	0	4	1	0	5	1	1	1	0	3	3	4	0	0	7	17
% Buses	5.0	0	25.0	0	5.7	0	6.5	16.7	0	6.7	25.0	4.8	10.0	0	8.3	42.9	8.7	0	0	8.8	7.5
Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
% Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.8	0	1.3	0.4
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	1	2
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	100	2.8	0	0	0	100	1.3	0.9

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Customer Loyalty Through Client Satisfaction

File Name : TOMKINS_AVENUE_&_WOOD_AVENUE_FARLEY_DRIVE_FRI_555718_08-24-2018
Site Code :
Start Date : 8/24/2018
Page No : 1

Groups Printed- Lights - Buses - Trucks - Pedestrians

	FARLEY DR From North					TOMKINS AVE From East					WOOD AVE From South					TOMKINS AVE From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
04:00 PM	10	2	2	0	14	0	11	1	0	12	2	4	1	0	7	1	10	5	0	16	49
04:15 PM	5	2	0	0	7	2	16	4	0	22	3	5	8	0	16	2	8	6	0	16	61
04:30 PM	3	2	2	0	7	2	27	1	0	30	0	1	2	3	6	2	9	9	0	20	63
04:45 PM	3	1	0	0	4	1	12	2	0	15	0	5	3	0	8	0	14	5	0	19	46
Total	21	7	4	0	32	5	66	8	0	79	5	15	14	3	37	5	41	25	0	71	219
05:00 PM	6	2	1	0	9	3	14	0	0	17	0	2	1	0	3	3	18	6	0	27	56
05:15 PM	3	2	2	0	7	0	14	1	0	15	0	2	2	0	4	0	9	5	0	14	40
05:30 PM	9	0	1	0	10	2	20	1	0	23	1	6	2	1	10	5	15	10	0	30	73
05:45 PM	3	2	0	0	5	2	11	1	0	14	0	5	2	0	7	2	14	5	0	21	47
Total	21	6	4	0	31	7	59	3	0	69	1	15	7	1	24	10	56	26	0	92	216
06:00 PM	4	4	3	0	11	3	23	0	0	26	1	1	0	0	2	0	6	1	0	7	46
06:15 PM	3	3	3	0	9	2	14	3	0	19	1	3	1	0	5	1	16	8	1	26	59
06:30 PM	2	1	2	0	5	1	7	1	0	9	1	4	1	0	6	2	12	2	0	16	36
06:45 PM	5	3	0	0	8	2	15	1	1	19	0	1	3	0	4	1	7	6	0	14	45
Total	14	11	8	0	33	8	59	5	1	73	3	9	5	0	17	4	41	17	1	63	186
Grand Total	56	24	16	0	96	20	184	16	1	221	9	39	26	4	78	19	138	68	1	226	621
Apprch %	58.3	25	16.7	0		9	83.3	7.2	0.5		11.5	50	33.3	5.1		8.4	61.1	30.1	0.4		
Total %	9	3.9	2.6	0	15.5	3.2	29.6	2.6	0.2	35.6	1.4	6.3	4.2	0.6	12.6	3.1	22.2	11	0.2	36.4	
Lights	53	24	16	0	93	20	183	16	0	219	9	39	26	0	74	18	138	65	0	221	607
% Lights	94.6	100	100	0	96.9	100	99.5	100	0	99.1	100	100	100	0	94.9	94.7	100	95.6	0	97.8	97.7
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
Trucks	3	0	0	0	3	0	1	0	0	1	0	0	0	0	0	1	0	3	0	4	8
% Trucks	5.4	0	0	0	3.1	0	0.5	0	0	0.5	0	0	0	0	0	5.3	0	4.4	0	1.8	1.3
Pedestrians	0	0	0	0	0	0	0	0	1	1	0	0	0	4	4	0	0	0	1	1	6
% Pedestrians	0	0	0	0	0	0	0	0	100	0.5	0	0	0	100	5.1	0	0	0	100	0.4	1

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400 Columbus Avenue - Suite 180E
Valhalla, NY 10595

Customer Loyalty Through Client Satisfaction

File Name : TOMKINS_AVENUE_&_WOOD_AVENUE_FARLEY_DRIVE_FRI_555718_08-24-2018
Site Code :
Start Date : 8/24/2018
Page No : 2

	FARLEY DR From North					TOMKINS AVE From East					WOOD AVE From South					TOMKINS AVE From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 06:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	5	2	0	0	7	2	16	4	0	22	3	5	8	0	16	2	8	6	0	16	61
04:30 PM	3	2	2	0	7	2	27	1	0	30	0	1	2	3	6	2	9	9	0	20	63
04:45 PM	3	1	0	0	4	1	12	2	0	15	0	5	3	0	8	0	14	5	0	19	46
05:00 PM	6	2	1	0	9	3	14	0	0	17	0	2	1	0	3	3	18	6	0	27	56
Total Volume	17	7	3	0	27	8	69	7	0	84	3	13	14	3	33	7	49	26	0	82	226
% App. Total	63	25.9	11.1	0		9.5	82.1	8.3	0		9.1	39.4	42.4	9.1		8.5	59.8	31.7	0		
PHF	.708	.875	.375	.000	.750	.667	.639	.438	.000	.700	.250	.650	.438	.250	.516	.583	.681	.722	.000	.759	.897
Lights	16	7	3	0	26	8	68	7	0	83	3	13	14	0	30	6	49	26	0	81	220
% Lights	94.1	100	100	0	96.3	100	98.6	100	0	98.8	100	100	100	0	90.9	85.7	100	100	0	98.8	97.3
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
Trucks	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	3
% Trucks	5.9	0	0	0	3.7	0	1.4	0	0	1.2	0	0	0	0	0	14.3	0	0	0	1.2	1.3
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	3
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	100	9.1	0	0	0	0	0	1.3

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Valhalla, NY 10595

Customer Loyalty Through Client Satisfaction

File Name : TOMKINS_AVENUE_&_WOOD_AVENUE_FARLEY_DRIVE_SAT_555722_08-25-2018
Site Code :
Start Date : 8/25/2018
Page No : 1

Groups Printed- Lights - Buses - Trucks - Pedestrians

	FARLEY DR From North					TOMKINS AVE From East					WOOD AVE From South					TOMKINS AVE From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
10:00 AM	7	6	0	0	13	1	6	3	0	10	1	0	1	0	2	4	9	2	1	16	41
10:15 AM	7	1	0	0	8	4	14	0	0	18	0	5	0	0	5	1	8	4	0	13	44
10:30 AM	4	2	1	0	7	0	11	1	0	12	1	1	1	0	3	1	14	3	0	18	40
10:45 AM	3	2	0	0	5	1	6	0	0	7	1	4	1	0	6	2	15	3	2	22	40
Total	21	11	1	0	33	6	37	4	0	47	3	10	3	0	16	8	46	12	3	69	165
11:00 AM	4	0	2	0	6	1	11	0	0	12	1	1	3	0	5	0	8	3	0	11	34
11:15 AM	4	0	0	1	5	0	10	2	0	12	0	5	1	0	6	0	19	1	0	20	43
11:30 AM	4	1	1	0	6	1	12	1	0	14	2	1	0	0	3	0	12	10	0	22	45
11:45 AM	3	3	0	0	6	1	13	1	0	15	2	2	2	3	9	1	12	3	0	16	46
Total	15	4	3	1	23	3	46	4	0	53	5	9	6	3	23	1	51	17	0	69	168
12:00 PM	8	3	0	0	11	0	15	1	0	16	1	1	4	0	6	2	10	3	0	15	48
12:15 PM	6	4	0	0	10	1	7	0	0	8	3	3	1	0	7	0	13	6	0	19	44
12:30 PM	2	5	3	0	10	0	8	1	0	9	0	0	1	0	1	1	12	1	0	14	34
12:45 PM	3	1	1	0	5	1	13	1	0	15	0	2	0	0	2	1	14	2	0	17	39
Total	19	13	4	0	36	2	43	3	0	48	4	6	6	0	16	4	49	12	0	65	165
01:00 PM	6	2	0	0	8	1	18	2	0	21	1	2	1	0	4	1	12	3	0	16	49
01:15 PM	1	3	1	0	5	1	7	1	0	9	1	1	2	0	4	5	22	8	0	35	53
01:30 PM	2	2	0	0	4	0	16	0	0	16	1	0	1	0	2	1	16	4	0	21	43
01:45 PM	7	2	1	1	11	3	9	2	0	14	1	1	1	0	3	1	8	4	0	13	41
Total	16	9	2	1	28	5	50	5	0	60	4	4	5	0	13	8	58	19	0	85	186
Grand Total	71	37	10	2	120	16	176	16	0	208	16	29	20	3	68	21	204	60	3	288	684
Apprch %	59.2	30.8	8.3	1.7		7.7	84.6	7.7	0		23.5	42.6	29.4	4.4		7.3	70.8	20.8	1		
Total %	10.4	5.4	1.5	0.3	17.5	2.3	25.7	2.3	0	30.4	2.3	4.2	2.9	0.4	9.9	3.1	29.8	8.8	0.4	42.1	
Lights	68	37	10	0	115	14	172	16	0	202	16	27	19	0	62	21	199	59	0	279	658
% Lights	95.8	100	100	0	95.8	87.5	97.7	100	0	97.1	100	93.1	95	0	91.2	100	97.5	98.3	0	96.9	96.2
Buses	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
% Buses	1.4	0	0	0	0.8	0	0	0	0	0	0	0	0	0	0	0	0.5	0	0	0.3	0.3
Trucks	2	0	0	0	2	2	4	0	0	6	0	2	1	0	3	0	4	1	0	5	16
% Trucks	2.8	0	0	0	1.7	12.5	2.3	0	0	2.9	0	6.9	5	0	4.4	0	2	1.7	0	1.7	2.3
Pedestrians	0	0	0	2	2	0	0	0	0	0	0	0	0	3	3	0	0	0	3	3	8
% Pedestrians	0	0	0	100	1.7	0	0	0	0	0	0	0	0	100	4.4	0	0	0	100	1	1.2

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400 Columbus Avenue - Suite 180E
Valhalla, NY 10595

Customer Loyalty Through Client Satisfaction

File Name : TOMKINS_AVENUE_&_WOOD_AVENUE_FARLEY_DRIVE_SAT_555722_08-25-2018
Site Code :
Start Date : 8/25/2018
Page No : 2

	FARLEY DR From North					TOMKINS AVE From East					WOOD AVE From South					TOMKINS AVE From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 01:00 PM																					
01:00 PM	6	2	0	0	8	1	18	2	0	21	1	2	1	0	4	1	12	3	0	16	49
01:15 PM	1	3	1	0	5	1	7	1	0	9	1	1	2	0	4	5	22	8	0	35	53
01:30 PM	2	2	0	0	4	0	16	0	0	16	1	0	1	0	2	1	16	4	0	21	43
01:45 PM	7	2	1	1	11	3	9	2	0	14	1	1	1	0	3	1	8	4	0	13	41
Total Volume	16	9	2	1	28	5	50	5	0	60	4	4	5	0	13	8	58	19	0	85	186
% App. Total	57.1	32.1	7.1	3.6		8.3	83.3	8.3	0		30.8	30.8	38.5	0		9.4	68.2	22.4	0		
PHF	.571	.750	.500	.250	.636	.417	.694	.625	.000	.714	1.00	.500	.625	.000	.813	.400	.659	.594	.000	.607	.877
Lights	16	9	2	0	27	5	50	5	0	60	4	4	5	0	13	8	57	19	0	84	184
% Lights	100	100	100	0	96.4	100	100	100	0	100	100	100	100	0	100	100	98.3	100	0	98.8	98.9
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
Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
% Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.7	0	0	1.2	0.5
Pedestrians	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
% Pedestrians	0	0	0	100	3.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5

Maser Consulting

400 Columbus Avenue, Suite 180E
Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

Project: EAGLE BAY
Location: STONEY POINT, NY
MC Job No. 18005404A

Site Code: 18005404 1010
HUDSON DRIVE (NORTH OF TOMKINS AVENUE
AND SOUTH OF GATE)
Latitude: 0' 0.0000 Undefined
Longitude: 0' 0.0000 Undefined

Start	8/13/2018		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
Time	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
12:00 AM	*	*	*	*	*	*	*	*	5	0	5	0	2	0	0	0
01:00	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0
02:00	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0
03:00	*	*	*	*	*	*	*	*	0	0	0	0	0	0	1	1
04:00	*	*	*	*	*	*	*	*	1	0	1	0	0	0	1	0
05:00	*	*	*	*	*	*	*	*	0	0	0	0	1	0	0	0
06:00	*	*	*	*	*	*	*	*	3	6	3	6	2	3	2	2
07:00	*	*	*	*	*	*	*	*	1	3	1	3	3	1	4	1
08:00	*	*	*	*	*	*	*	*	9	**13**	9	**13**	4	5	5	5
09:00	*	*	*	*	*	*	*	*	8	5	8	5	2	7	4	3
10:00	*	*	*	*	*	*	*	*	**11**	12	**11**	12	8	12	3	7
11:00	*	*	*	*	*	*	*	*	9	12	9	12	**15**	**15**	**13**	**10**
12:00 PM	*	*	*	*	*	*	*	*	9	5	9	5	15	**16**	8	**28**
01:00	*	*	*	*	*	*	11	9	5	15	8	12	11	15	4	16
02:00	*	*	*	*	*	*	7	13	11	11	9	12	**17**	14	11	4
03:00	*	*	*	*	*	*	16	13	12	8	**14**	10	16	16	11	9
04:00	*	*	*	*	*	*	15	11	13	12	14	12	17	12	10	8
05:00	*	*	*	*	*	*	7	**16**	11	14	9	**15**	8	10	8	5
06:00	*	*	*	*	*	*	10	14	**16**	**16**	13	15	7	11	**15**	9
07:00	*	*	*	*	*	*	**18**	13	6	4	12	8	11	1	14	1
08:00	*	*	*	*	*	*	13	6	3	0	8	3	1	4	6	2
09:00	*	*	*	*	*	*	3	1	1	4	2	2	2	2	5	0
10:00	*	*	*	*	*	*	3	1	2	1	2	1	1	2	1	0
11:00	*	*	*	*	*	*	1	2	1	0	1	1	5	1	0	0
Total	0	0	0	0	0	0	104	99	137	141	148	147	148	147	126	111
Day	0		0		0		203		278		295		295		237	
AM Peak	-	-	-	-	-	-	-	-	10:00	08:00	10:00	08:00	11:00	11:00	11:00	11:00
Vol.	-	-	-	-	-	-	-	-	11	13	11	13	15	15	13	10
PM Peak	-	-	-	-	-	-	19:00	17:00	18:00	18:00	15:00	17:00	14:00	12:00	18:00	12:00
Vol.	-	-	-	-	-	-	18	16	16	16	14	15	17	16	15	28

Project: EAGLE BAY
Location: STONEY POINT, NY
MC Job No. 18005404A

Maser Consulting

400 Columbus Avenue, Suite 180E
Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

Site Code: 18005404 1010
HUDSON DRIVE (NORTH OF TOMKINS AVENUE
AND SOUTH OF GATE)
Latitude: 0' 0.0000 Undefined
Longitude: 0' 0.0000 Undefined

Start	8/20/2018		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
Time	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
12:00 AM	0	0	1	0	0	0	*	*	*	*	0	0	*	*	*	*
01:00	0	0	1	1	1	0	*	*	*	*	1	0	*	*	*	*
02:00	0	0	0	1	1	1	*	*	*	*	0	1	*	*	*	*
03:00	0	0	0	0	0	0	*	*	*	*	0	0	*	*	*	*
04:00	1	1	0	0	1	0	*	*	*	*	1	0	*	*	*	*
05:00	1	2	0	1	0	0	*	*	*	*	0	1	*	*	*	*
06:00	1	1	1	1	2	2	*	*	*	*	1	1	*	*	*	*
07:00	4	4	6	3	3	4	*	*	*	*	4	4	*	*	*	*
08:00	5	**10**	5	8	4	**9**	*	*	*	*	5	9	*	*	*	*
09:00	6	3	6	5	**10**	7	*	*	*	*	**7**	5	*	*	*	*
10:00	**9**	7	**8**	8	2	6	*	*	*	*	6	7	*	*	*	*
11:00	5	2	8	**17**	*	*	*	*	*	*	6	**10**	*	*	*	*
12:00 PM	4	5	6	5	*	*	*	*	*	*	5	5	*	*	*	*
01:00	7	5	4	9	*	*	*	*	*	*	6	7	*	*	*	*
02:00	8	8	9	7	*	*	*	*	*	*	8	8	*	*	*	*
03:00	5	7	9	9	*	*	*	*	*	*	7	8	*	*	*	*
04:00	5	5	6	8	*	*	*	*	*	*	6	6	*	*	*	*
05:00	8	6	13	10	*	*	*	*	*	*	**10**	8	*	*	*	*
06:00	6	**10**	**15**	**11**	*	*	*	*	*	*	10	**10**	*	*	*	*
07:00	**11**	6	10	7	*	*	*	*	*	*	10	6	*	*	*	*
08:00	6	4	5	6	*	*	*	*	*	*	6	5	*	*	*	*
09:00	0	0	3	2	*	*	*	*	*	*	2	1	*	*	*	*
10:00	2	4	0	0	*	*	*	*	*	*	1	2	*	*	*	*
11:00	0	0	0	1	*	*	*	*	*	*	0	0	*	*	*	*
Total	94	90	116	120	24	29	0	0	0	0	102	104	0	0	0	0
Day	184		236		53		0		0		206		0		0	
AM Peak	10:00	08:00	10:00	11:00	09:00	08:00	-	-	-	-	09:00	11:00	-	-	-	-
Vol.	9	10	8	17	10	9	-	-	-	-	7	10	-	-	-	-
PM Peak	19:00	18:00	18:00	18:00	-	-	-	-	-	-	17:00	18:00	-	-	-	-
Vol.	11	10	15	11	-	-	-	-	-	-	10	10	-	-	-	-

Comb. Total	184	236	53	203	278	501	295	237

ADT 254 AADT 254

Maser Consulting

400 Columbus Avenue, Suite 180E
Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

Project: EAGLE BAY
Location: STONEY POINT, NY
MC Job No. 18005404A

Site Code: 18005404 555
HUDSON DRIVE (NORTH OF TOMKINS AVENUE
AND SOUTH OF GATE)
Latitude: 0' 0.0000 Undefined
Longitude: 0' 0.0000 Undefined

Start	8/20/2018		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
Time	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
12:00 AM	*	*	*	*	*	*	0	0	3	1	2	0	0	0	3	0
01:00	*	*	*	*	*	*	0	0	4	0	2	0	4	1	0	0
02:00	*	*	*	*	*	*	0	0	1	1	0	0	0	0	1	1
03:00	*	*	*	*	*	*	0	0	0	0	0	0	0	0	0	0
04:00	*	*	*	*	*	*	1	0	2	0	2	0	0	0	0	0
05:00	*	*	*	*	*	*	0	1	0	2	0	2	0	0	0	0
06:00	*	*	*	*	*	*	1	0	1	6	1	3	0	1	2	2
07:00	*	*	*	*	*	*	4	5	5	6	4	6	3	4	3	1
08:00	*	*	*	*	*	*	3	9	5	**16**	4	12	9	10	2	8
09:00	*	*	*	*	*	*	3	3	**10**	12	6	8	7	9	10	14
10:00	*	*	*	*	*	*	3	6	8	8	6	7	7	14	6	9
11:00	*	*	*	*	*	*	**7**	**13**	8	13	**8**	**13**	**11**	**18**	**14**	**44**
12:00 PM	*	*	*	*	8	9	10	9	9	12	9	10	14	17	13	**32**
01:00	*	*	*	*	8	11	6	5	13	19	9	12	10	**32**	11	30
02:00	*	*	*	*	7	**18**	9	12	15	**22**	10	**17**	13	26	16	16
03:00	*	*	*	*	6	9	6	8	13	21	8	13	**21**	17	11	23
04:00	*	*	*	*	13	5	10	11	10	16	11	11	14	12	18	12
05:00	*	*	*	*	12	10	6	8	7	12	8	10	7	14	**25**	18
06:00	*	*	*	*	8	14	7	16	4	8	6	13	10	15	24	5
07:00	*	*	*	*	**14**	12	**12**	**19**	**16**	13	**14**	15	12	6	12	5
08:00	*	*	*	*	5	2	12	5	8	9	8	5	17	12	24	6
09:00	*	*	*	*	3	5	3	4	12	1	6	3	7	3	5	5
10:00	*	*	*	*	1	1	3	2	4	0	3	1	10	5	2	1
11:00	*	*	*	*	1	1	1	0	5	2	2	1	2	2	0	0
Total	0	0	0	0	86	97	107	136	163	200	129	162	178	218	202	232
Day	0		0		183		243		363		291		396		434	
AM Peak	-	-	-	-	-	-	11:00	11:00	09:00	08:00	11:00	11:00	11:00	11:00	11:00	11:00
Vol.	-	-	-	-	-	-	7	13	10	16	8	13	11	18	14	44
PM Peak	-	-	-	-	19:00	14:00	19:00	19:00	19:00	14:00	19:00	14:00	15:00	13:00	17:00	12:00
Vol.	-	-	-	-	14	18	12	19	16	22	14	17	21	32	25	32

Project: EAGLE BAY
Location: STONEY POINT, NY
MC Job No. 18005404A

Maser Consulting

400 Columbus Avenue, Suite 180E
Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

Site Code: 18005404 555
HUDSON DRIVE (NORTH OF TOMKINS AVENUE
AND SOUTH OF GATE)
Latitude: 0' 0.0000 Undefined
Longitude: 0' 0.0000 Undefined

Start	8/27/2018		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
Time	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
12:00 AM	1	2	*	*	*	*	*	*	*	*	1	2	*	*	*	*
01:00	0	0	*	*	*	*	*	*	*	*	0	0	*	*	*	*
02:00	0	1	*	*	*	*	*	*	*	*	0	1	*	*	*	*
03:00	1	0	*	*	*	*	*	*	*	*	1	0	*	*	*	*
04:00	0	0	*	*	*	*	*	*	*	*	0	0	*	*	*	*
05:00	2	0	*	*	*	*	*	*	*	*	2	0	*	*	*	*
06:00	2	2	*	*	*	*	*	*	*	*	2	2	*	*	*	*
07:00	4	11	*	*	*	*	*	*	*	*	4	11	*	*	*	*
08:00	4	**17**	*	*	*	*	*	*	*	*	4	**17**	*	*	*	*
09:00	5	7	*	*	*	*	*	*	*	*	5	7	*	*	*	*
10:00	9	16	*	*	*	*	*	*	*	*	9	16	*	*	*	*
11:00	**10**	13	*	*	*	*	*	*	*	*	**10**	13	*	*	*	*
12:00 PM	**16**	**12**	*	*	*	*	*	*	*	*	**16**	**12**	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	54	81	0	0	0	0	0	0	0	0	54	81	0	0	0	0
Day	135		0		0		0		0		135		0		0	
AM Peak	11:00	08:00	-	-	-	-	-	-	-	-	11:00	08:00	-	-	-	-
Vol.	10	17	-	-	-	-	-	-	-	-	10	17	-	-	-	-
PM Peak	12:00	12:00	-	-	-	-	-	-	-	-	12:00	12:00	-	-	-	-
Vol.	16	12	-	-	-	-	-	-	-	-	16	12	-	-	-	-

Comb. Total	135	0	183	243	363	426	396	434

ADT ADT 346 AADT 346

Maser Consulting

400 Columbus Avenue, Suite 180E
Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

Project: EAGLE BAY
Location: STONY POINT, NY
MC Job No. 18005404A

Site Code: 18005404 1010
HUDSON DRIVE (NORTH OF TOMKINS AVENUE
AND SOUTH OF GATE)
Latitude: 0' 0.0000 Undefined
Longitude: 0' 0.0000 Undefined

Start	8/27/2018		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
Time	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
12:00 AM	*	*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	*	*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	*	*	0	0	0	0	0	0	0	0	0	0	0	0	1	1
03:00	*	*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	*	*	1	0	0	0	1	0	1	0	1	0	0	0	1	1
05:00	*	*	0	0	2	1	0	0	0	0	0	0	0	0	0	0
06:00	*	*	1	2	1	1	3	3	3	2	2	2	1	1	1	1
07:00	*	*	3	5	4	8	3	4	4	6	4	6	6	5	5	6
08:00	*	*	6	6	7	9	**8**	**9**	4	10	6	**8**	10	15	2	4
09:00	*	*	4	**8**	9	7	4	6	**13**	8	8	7	7	11	**12**	7
10:00	*	*	6	5	3	5	4	4	10	**13**	6	7	7	15	7	**11**
11:00	*	*	**8**	5	**11**	**11**	8	9	10	8	**9**	8	**16**	**17**	11	11
12:00 PM	*	*	3	5	5	8	5	8	7	**9**	5	8	**18**	15	9	21
01:00	*	*	8	9	7	**12**	8	8	5	9	7	**10**	9	16	8	14
02:00	10	10	9	6	11	7	9	**15**	**9**	8	10	9	6	10	10	**23**
03:00	5	7	7	**11**	6	4	4	8	8	8	6	8	11	**18**	**21**	15
04:00	**12**	7	**12**	8	8	11	17	8	6	4	**11**	8	13	16	20	17
05:00	6	5	6	9	10	11	8	10	4	6	7	8	10	6	17	11
06:00	6	**11**	6	5	**15**	10	**21**	13	9	9	11	10	12	9	20	2
07:00	7	3	12	9	9	5	8	10	4	2	8	6	12	8	11	7
08:00	4	0	10	6	1	4	4	1	1	2	4	3	14	6	2	2
09:00	3	1	1	0	5	2	4	1	0	0	3	1	6	2	9	5
10:00	1	2	0	0	6	4	2	4	0	3	2	3	1	0	1	1
11:00	0	0	0	0	0	0	1	1	2	0	1	0	4	1	0	0
Total	54	46	103	99	120	120	122	122	100	107	111	112	163	171	168	160
Day	100		202		240		244		207		223		334		328	
AM Peak	-	-	11:00	09:00	11:00	11:00	08:00	08:00	09:00	10:00	11:00	08:00	11:00	11:00	09:00	10:00
Vol.	-	-	8	8	11	11	8	9	13	13	9	8	16	17	12	11
PM Peak	16:00	18:00	16:00	15:00	18:00	13:00	18:00	14:00	14:00	12:00	16:00	13:00	12:00	15:00	15:00	14:00
Vol.	12	11	12	11	15	12	21	15	9	9	11	10	18	18	21	23

Project: EAGLE BAY
Location: STONY POINT, NY
MC Job No. 18005404A

Maser Consulting

400 Columbus Avenue, Suite 180E
Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

Site Code: 18005404 1010
HUDSON DRIVE (NORTH OF TOMKINS AVENUE
AND SOUTH OF GATE)
Latitude: 0' 0.0000 Undefined
Longitude: 0' 0.0000 Undefined

Start	9/3/2018		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
Time	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
12:00 AM	7	5	0	0	*	*	*	*	*	*	4	2	*	*	*	*
01:00	0	0	0	0	*	*	*	*	*	*	0	0	*	*	*	*
02:00	0	0	0	0	*	*	*	*	*	*	0	0	*	*	*	*
03:00	0	0	0	0	*	*	*	*	*	*	0	0	*	*	*	*
04:00	0	0	0	0	*	*	*	*	*	*	0	0	*	*	*	*
05:00	0	0	1	1	*	*	*	*	*	*	0	0	*	*	*	*
06:00	1	1	0	2	*	*	*	*	*	*	0	2	*	*	*	*
07:00	5	4	2	3	*	*	*	*	*	*	4	4	*	*	*	*
08:00	7	6	4	**5**	*	*	*	*	*	*	6	6	*	*	*	*
09:00	9	10	**7**	5	*	*	*	*	*	*	8	8	*	*	*	*
10:00	**14**	**20**	*	*	*	*	*	*	*	*	**14**	**20**	*	*	*	*
11:00	9	20	*	*	*	*	*	*	*	*	9	20	*	*	*	*
12:00 PM	13	29	*	*	*	*	*	*	*	*	13	29	*	*	*	*
01:00	17	30	*	*	*	*	*	*	*	*	17	30	*	*	*	*
02:00	15	**34**	*	*	*	*	*	*	*	*	15	**34**	*	*	*	*
03:00	27	16	*	*	*	*	*	*	*	*	27	16	*	*	*	*
04:00	15	13	*	*	*	*	*	*	*	*	15	13	*	*	*	*
05:00	21	9	*	*	*	*	*	*	*	*	21	9	*	*	*	*
06:00	**28**	6	*	*	*	*	*	*	*	*	**28**	6	*	*	*	*
07:00	17	4	*	*	*	*	*	*	*	*	17	4	*	*	*	*
08:00	9	1	*	*	*	*	*	*	*	*	9	1	*	*	*	*
09:00	6	2	*	*	*	*	*	*	*	*	6	2	*	*	*	*
10:00	0	0	*	*	*	*	*	*	*	*	0	0	*	*	*	*
11:00	0	0	*	*	*	*	*	*	*	*	0	0	*	*	*	*
Total	220	210	14	16	0	0	0	0	0	0	213	206	0	0	0	0
Day	430		30		0		0		0		419		0		0	
AM Peak	10:00	10:00	09:00	08:00	-	-	-	-	-	-	10:00	10:00	-	-	-	-
Vol.	14	20	7	5	-	-	-	-	-	-	14	20	-	-	-	-
PM Peak	18:00	14:00	-	-	-	-	-	-	-	-	18:00	14:00	-	-	-	-
Vol.	28	34	-	-	-	-	-	-	-	-	28	34	-	-	-	-

Comb. Total	530	232	240	244	207	642	334	328

ADT ADT 275 AADT 275

Maser Consulting

400 Columbus Avenue, Suite 180E
Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

Project: EAGLE BAY
Location: STONY POINT, NY
MC Job No. 18005404A

Site Code: 18005404 555
HUDSON DRIVE (NORTH OF TOMKINS AVENUE
AND SOUTH OF GATE)
Latitude: 0' 0.0000 Undefined
Longitude: 0' 0.0000 Undefined

Start	9/3/2018		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
Time	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
12:00 AM	*	*	*	*	0	1	0	0	0	0	0	0	1	1	0	0
01:00	*	*	*	*	3	2	0	0	0	0	1	1	1	1	0	2
02:00	*	*	*	*	1	0	0	0	0	0	0	0	0	0	0	0
03:00	*	*	*	*	0	0	0	0	0	0	0	0	0	0	2	1
04:00	*	*	*	*	1	0	0	0	0	0	0	0	0	0	0	0
05:00	*	*	*	*	1	0	0	0	0	0	0	0	0	0	0	0
06:00	*	*	*	*	0	3	2	1	0	0	1	1	1	1	0	0
07:00	*	*	*	*	5	3	3	7	4	4	4	5	6	2	3	1
08:00	*	*	*	*	**7**	**11**	5	**8**	6	**13**	**6**	**11**	1	6	6	4
09:00	*	*	*	*	7	5	**6**	6	6	10	6	7	3	4	8	3
10:00	*	*	*	*	7	7	4	7	**8**	2	6	5	7	7	**11**	5
11:00	*	*	*	*	3	5	6	4	5	5	5	5	**8**	**14**	2	**7**
12:00 PM	*	*	**13**	**14**	8	**10**	6	5	5	2	8	**8**	5	13	8	7
01:00	*	*	8	6	**12**	8	8	7	4	8	8	7	11	23	9	**8**
02:00	*	*	5	5	7	10	2	4	4	10	4	7	11	**32**	4	5
03:00	*	*	5	7	9	9	7	**13**	3	3	6	8	19	24	7	5
04:00	*	*	6	7	9	7	3	7	11	11	7	8	13	16	4	4
05:00	*	*	8	5	10	6	**14**	10	**13**	**12**	**11**	8	11	15	**13**	8
06:00	*	*	6	3	7	6	10	11	6	4	7	6	13	14	3	5
07:00	*	*	5	9	10	10	8	5	9	5	8	7	**31**	16	0	0
08:00	*	*	7	6	3	3	1	2	4	8	4	5	31	4	1	1
09:00	*	*	2	2	1	2	2	1	1	2	2	2	13	5	1	1
10:00	*	*	2	1	0	1	0	0	1	0	1	0	8	2	0	0
11:00	*	*	0	2	1	1	0	0	1	1	0	1	0	0	0	0
Total	0	0	67	67	112	110	87	98	91	100	95	102	194	200	82	67
Day	0		134		222		185		191		197		394		149	
AM Peak	-	-	-	-	08:00	08:00	09:00	08:00	10:00	08:00	08:00	08:00	11:00	11:00	10:00	11:00
Vol.	-	-	-	-	7	11	6	8	8	13	6	11	8	14	11	7
PM Peak	-	-	12:00	12:00	13:00	12:00	17:00	15:00	17:00	17:00	17:00	12:00	19:00	14:00	17:00	13:00
Vol.	-	-	13	14	12	10	14	13	13	12	11	8	31	32	13	8

Maser Consulting

400 Columbus Avenue, Suite 180E
Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

Project: EAGLE BAY
Location: STONY POINT, NY
MC Job No. 18005404A

Site Code: 18005404 555
HUDSON DRIVE (NORTH OF TOMKINS AVENUE
AND SOUTH OF GATE)
Latitude: 0' 0.0000 Undefined
Longitude: 0' 0.0000 Undefined

Start	9/10/2018		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
Time	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
12:00 AM	0	0	2	2	0	0	0	0	0	0	0	0	*	*	*	*
01:00	0	0	0	0	0	0	0	0	0	0	0	0	*	*	*	*
02:00	0	0	0	0	0	0	1	0	0	0	0	0	*	*	*	*
03:00	0	0	0	0	0	0	0	0	0	0	0	0	*	*	*	*
04:00	0	0	0	0	1	1	0	0	0	0	0	0	*	*	*	*
05:00	1	0	1	1	1	0	0	0	0	0	1	0	*	*	*	*
06:00	0	3	1	1	0	0	0	0	0	2	0	1	*	*	*	*
07:00	6	4	2	2	3	3	2	5	2	3	3	3	*	*	*	*
08:00	5	**10**	3	**8**	3	**10**	**6**	**8**	6	**11**	5	**9**	*	*	*	*
09:00	**7**	7	**6**	7	**10**	9	5	4	4	4	**6**	6	*	*	*	*
10:00	2	3	3	1	4	1	5	5	**10**	10	5	4	*	*	*	*
11:00	5	5	3	5	1	3	6	7	6	6	4	5	*	*	*	*
12:00 PM	3	2	8	8	5	4	6	4	*	*	6	4	*	*	*	*
01:00	3	3	8	11	3	5	10	11	*	*	6	8	*	*	*	*
02:00	2	6	7	6	**8**	6	2	3	*	*	5	5	*	*	*	*
03:00	3	5	6	4	1	1	2	3	*	*	3	3	*	*	*	*
04:00	**8**	3	5	7	3	4	8	6	*	*	6	5	*	*	*	*
05:00	6	0	**13**	**15**	6	2	6	5	*	*	**8**	6	*	*	*	*
06:00	4	**7**	11	9	7	**9**	**11**	**13**	*	*	8	**10**	*	*	*	*
07:00	3	3	4	3	5	3	2	2	*	*	4	3	*	*	*	*
08:00	2	1	8	3	1	2	3	3	*	*	4	2	*	*	*	*
09:00	1	0	2	2	1	0	6	1	*	*	2	1	*	*	*	*
10:00	0	0	0	0	0	0	0	1	*	*	0	0	*	*	*	*
11:00	0	0	1	0	0	0	0	0	*	*	0	0	*	*	*	*
Total	61	62	94	95	63	63	81	81	28	36	76	75	0	0	0	0
Day	123		189		126		162		64		151		0		0	
AM Peak	09:00	08:00	09:00	08:00	09:00	08:00	08:00	08:00	10:00	08:00	09:00	08:00	-	-	-	-
Vol.	7	10	6	8	10	10	6	8	10	11	6	9	-	-	-	-
PM Peak	16:00	18:00	17:00	17:00	14:00	18:00	18:00	18:00	-	-	17:00	18:00	-	-	-	-
Vol.	8	7	13	15	8	9	11	13	-	-	8	10	-	-	-	-

Comb. Total	123	323	348	347	255	348	394	149

ADT ADT 194 AADT 194

Maser Consulting

400 Columbus Avenue, Suite 180E
Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

Project: EAGLE BAY
Location: STONY POINT, NY
MC Job No. 18005404A

Site Code: 18005404 1010
HUDSON DRIVE (NORTH OF TOMKINS AVENUE
AND SOUTH OF GATE)
Latitude: 0' 0.0000 Undefined
Longitude: 0' 0.0000 Undefined

Start	9/24/2018		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
Time	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
12:00 AM	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0
01:00	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0
02:00	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0
03:00	*	*	*	*	*	*	*	*	0	0	0	0	0	0	0	0
04:00	*	*	*	*	*	*	*	*	1	0	1	0	0	0	1	0
05:00	*	*	*	*	*	*	*	*	1	0	1	0	1	0	0	0
06:00	*	*	*	*	*	*	*	*	0	1	0	1	1	1	0	0
07:00	*	*	*	*	*	*	*	*	4	**8**	4	**8**	3	13	3	3
08:00	*	*	*	*	*	*	*	*	5	7	5	7	4	22	4	6
09:00	*	*	*	*	*	*	*	*	3	7	3	7	19	**53**	6	5
10:00	*	*	*	*	*	*	*	*	6	6	6	6	16	42	**9**	9
11:00	*	*	*	*	*	*	*	*	**7**	7	**7**	7	**23**	17	8	**20**
12:00 PM	*	*	*	*	*	*	*	*	15	13	15	13	12	13	18	**21**
01:00	*	*	*	*	*	*	9	**9**	10	15	10	12	15	18	11	9
02:00	*	*	*	*	*	*	4	5	10	15	7	10	15	13	**19**	19
03:00	*	*	*	*	*	*	3	8	10	**22**	6	**15**	22	**19**	10	10
04:00	*	*	*	*	*	*	10	6	**18**	16	14	11	**29**	12	16	8
05:00	*	*	*	*	*	*	**13**	6	18	10	**16**	8	28	11	15	6
06:00	*	*	*	*	*	*	3	5	11	14	7	10	23	4	9	6
07:00	*	*	*	*	*	*	6	2	18	1	12	2	9	5	3	0
08:00	*	*	*	*	*	*	2	1	4	4	3	2	14	3	1	0
09:00	*	*	*	*	*	*	0	0	0	1	0	0	21	3	1	3
10:00	*	*	*	*	*	*	0	0	2	2	1	1	1	1	1	0
11:00	*	*	*	*	*	*	0	1	2	2	1	2	2	1	0	0
Total	0	0	0	0	0	0	50	43	145	151	119	122	258	251	135	125
Day	0		0		0		93		296		241		509		260	
AM Peak	-	-	-	-	-	-	-	-	11:00	07:00	11:00	07:00	11:00	09:00	10:00	11:00
Vol.	-	-	-	-	-	-	-	-	7	8	7	8	23	53	9	20
PM Peak	-	-	-	-	-	-	17:00	13:00	16:00	15:00	17:00	15:00	16:00	15:00	14:00	12:00
Vol.	-	-	-	-	-	-	13	9	18	22	16	15	29	19	19	21

Project: EAGLE BAY
Location: STONY POINT, NY
MC Job No. 18005404A

Maser Consulting

400 Columbus Avenue, Suite 180E
Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

Site Code: 18005404 1010
HUDSON DRIVE (NORTH OF TOMKINS AVENUE
AND SOUTH OF GATE)
Latitude: 0' 0.0000 Undefined
Longitude: 0' 0.0000 Undefined

Start	10/1/2018		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
Time	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	*	*	*	*
01:00	0	0	0	0	0	0	0	0	0	0	0	0	*	*	*	*
02:00	0	0	0	0	0	0	0	0	0	0	0	0	*	*	*	*
03:00	0	1	0	0	0	0	0	0	0	0	0	0	*	*	*	*
04:00	1	0	1	0	0	0	0	0	2	1	1	0	*	*	*	*
05:00	0	0	0	0	0	0	1	0	0	0	0	0	*	*	*	*
06:00	1	1	1	3	1	2	0	3	0	1	1	2	*	*	*	*
07:00	1	**8**	0	5	2	**8**	5	**9**	3	8	2	**8**	*	*	*	*
08:00	**6**	8	**7**	5	**4**	4	**6**	6	**9**	**10**	**6**	7	*	*	*	*
09:00	4	7	2	4	3	6	5	5	*	*	4	6	*	*	*	*
10:00	6	3	5	5	3	5	4	5	*	*	4	4	*	*	*	*
11:00	5	6	3	**8**	4	6	6	6	*	*	4	6	*	*	*	*
12:00 PM	5	4	**11**	7	8	5	**9**	**11**	*	*	**8**	7	*	*	*	*
01:00	**8**	**6**	5	6	**11**	**15**	4	7	*	*	7	**8**	*	*	*	*
02:00	3	3	4	6	4	6	7	6	*	*	4	5	*	*	*	*
03:00	2	3	10	4	9	5	3	2	*	*	6	4	*	*	*	*
04:00	5	5	8	4	10	7	7	4	*	*	8	5	*	*	*	*
05:00	8	6	4	5	9	5	9	6	*	*	8	6	*	*	*	*
06:00	6	3	5	**8**	8	9	6	8	*	*	6	7	*	*	*	*
07:00	7	5	6	1	9	3	7	3	*	*	7	3	*	*	*	*
08:00	1	1	4	3	3	3	3	2	*	*	3	2	*	*	*	*
09:00	0	0	0	0	0	1	2	0	*	*	0	0	*	*	*	*
10:00	0	0	0	0	0	1	0	0	*	*	0	0	*	*	*	*
11:00	0	0	0	0	0	0	1	1	*	*	0	0	*	*	*	*
Total	69	70	76	74	88	91	85	84	14	20	79	80	0	0	0	0
Day	139		150		179		169		34		159		0		0	
AM Peak	08:00	07:00	08:00	11:00	08:00	07:00	08:00	07:00	08:00	08:00	08:00	07:00	-	-	-	-
Vol.	6	8	7	8	4	8	6	9	9	10	6	8	-	-	-	-
PM Peak	13:00	13:00	12:00	18:00	13:00	13:00	12:00	12:00	-	-	12:00	13:00	-	-	-	-
Vol.	8	6	11	8	11	15	9	11	-	-	8	8	-	-	-	-

Comb. Total	139	150	179	262	330	400	509	260

ADT ADT 238 AADT 238

Maser Consulting

400 Columbus Avenue, Suite 180E
Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

Project: EAGLE BAY
Location: STONY POINT, NY
MC Job No. 18005404A

Site Code: 018005404444
HUDSON DRIVE (NORTH OF TOMKINS AVENUE
AND SOUTH OF GATE)
Latitude: 0' 0.0000 Undefined
Longitude: 0' 0.0000 Undefined

Start	10/1/2018		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
Time	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
12:00 AM	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0
01:00	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0
02:00	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0
03:00	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0
04:00	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0
05:00	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0
06:00	*	*	*	*	*	*	*	*	*	*	*	*	1	1	2	0
07:00	*	*	*	*	*	*	*	*	*	*	*	*	1	3	2	2
08:00	*	*	*	*	*	*	*	*	*	*	*	*	7	7	2	4
09:00	*	*	*	*	*	*	*	*	*	*	*	*	11	10	9	7
10:00	*	*	*	*	*	*	*	*	**10**	**9**	**10**	**9**	6	10	7	11
11:00	*	*	*	*	*	*	*	*	9	7	9	7	**14**	**12**	**17**	**18**
12:00 PM	*	*	*	*	*	*	*	*	10	**14**	10	**14**	8	**16**	12	**25**
01:00	*	*	*	*	*	*	*	*	12	9	12	9	9	9	12	11
02:00	*	*	*	*	*	*	*	*	11	9	11	9	7	8	11	11
03:00	*	*	*	*	*	*	*	*	4	7	4	7	10	9	8	11
04:00	*	*	*	*	*	*	*	*	3	3	3	3	5	1	12	9
05:00	*	*	*	*	*	*	*	*	8	13	8	13	**12**	10	13	10
06:00	*	*	*	*	*	*	*	*	**14**	6	**14**	6	5	5	**16**	9
07:00	*	*	*	*	*	*	*	*	4	4	4	4	5	0	8	1
08:00	*	*	*	*	*	*	*	*	4	7	4	7	1	2	10	2
09:00	*	*	*	*	*	*	*	*	5	3	5	3	1	2	3	0
10:00	*	*	*	*	*	*	*	*	0	0	0	0	1	1	0	0
11:00	*	*	*	*	*	*	*	*	0	1	0	1	1	1	0	0
Total	0	0	0	0	0	0	0	0	94	92	94	92	105	107	144	131
Day	0		0		0		0		186		186		212		275	
AM Peak	-	-	-	-	-	-	-	-	10:00	10:00	10:00	10:00	11:00	11:00	11:00	11:00
Vol.	-	-	-	-	-	-	-	-	10	9	10	9	14	12	17	18
PM Peak	-	-	-	-	-	-	-	-	18:00	12:00	18:00	12:00	17:00	12:00	18:00	12:00
Vol.	-	-	-	-	-	-	-	-	14	14	14	14	12	16	16	25

Maser Consulting

400 Columbus Avenue, Suite 180E
Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

Project: EAGLE BAY
Location: STONY POINT, NY
MC Job No. 18005404A

Site Code: 018005404444
HUDSON DRIVE (NORTH OF TOMKINS AVENUE
AND SOUTH OF GATE)
Latitude: 0' 0.0000 Undefined
Longitude: 0' 0.0000 Undefined

Start	10/8/2018		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
Time	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
12:00 AM	0	0	0	0	*	*	*	*	*	*	0	0	*	*	*	*
01:00	0	1	1	1	*	*	*	*	*	*	0	1	*	*	*	*
02:00	0	0	0	0	*	*	*	*	*	*	0	0	*	*	*	*
03:00	0	0	0	0	*	*	*	*	*	*	0	0	*	*	*	*
04:00	0	0	1	0	*	*	*	*	*	*	0	0	*	*	*	*
05:00	0	0	0	1	*	*	*	*	*	*	0	0	*	*	*	*
06:00	1	5	1	1	*	*	*	*	*	*	1	3	*	*	*	*
07:00	4	4	2	6	*	*	*	*	*	*	3	5	*	*	*	*
08:00	3	5	4	4	*	*	*	*	*	*	4	4	*	*	*	*
09:00	7	**8**	4	8	*	*	*	*	*	*	6	**8**	*	*	*	*
10:00	3	5	5	7	*	*	*	*	*	*	4	6	*	*	*	*
11:00	**8**	3	**6**	**9**	*	*	*	*	*	*	**7**	6	*	*	*	*
12:00 PM	7	**8**	*	*	*	*	*	*	*	*	7	**8**	*	*	*	*
01:00	6	8	*	*	*	*	*	*	*	*	6	8	*	*	*	*
02:00	**10**	8	*	*	*	*	*	*	*	*	**10**	8	*	*	*	*
03:00	5	2	*	*	*	*	*	*	*	*	5	2	*	*	*	*
04:00	7	4	*	*	*	*	*	*	*	*	7	4	*	*	*	*
05:00	3	3	*	*	*	*	*	*	*	*	3	3	*	*	*	*
06:00	7	3	*	*	*	*	*	*	*	*	7	3	*	*	*	*
07:00	5	6	*	*	*	*	*	*	*	*	5	6	*	*	*	*
08:00	0	2	*	*	*	*	*	*	*	*	0	2	*	*	*	*
09:00	2	0	*	*	*	*	*	*	*	*	2	0	*	*	*	*
10:00	1	1	*	*	*	*	*	*	*	*	1	1	*	*	*	*
11:00	0	0	*	*	*	*	*	*	*	*	0	0	*	*	*	*
Total	79	76	24	37	0	0	0	0	0	0	78	78	0	0	0	0
Day	155		61		0		0		0		156		0		0	
AM Peak	11:00	09:00	11:00	11:00	-	-	-	-	-	-	11:00	09:00	-	-	-	-
Vol.	8	8	6	9	-	-	-	-	-	-	7	8	-	-	-	-
PM Peak	14:00	12:00	-	-	-	-	-	-	-	-	14:00	12:00	-	-	-	-
Vol.	10	8	-	-	-	-	-	-	-	-	10	8	-	-	-	-

Comb. Total	155	61	0	0	186	342	212	275

ADT ADT 213 AADT 213

Maser Consulting

400 Columbus Avenue, Suite 180E
Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

Project: EAGLE BAY
Location: STONY POINT, NY
MC Job No. 18005404A

Site Code: 018005404444
TOMKINS AVENUE (EAST OF HOOVER PLACE
AND WEST OF FARLEY DRIVE)
Latitude: 0' 0.0000 Undefined
Longitude: 0' 0.0000 Undefined

Start	8/20/2018		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
Time	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	*	*	*	*	*	*	10	6	6	19	8	12	11	13	6	14
01:00	*	*	*	*	*	*	5	4	5	8	5	6	7	16	8	14
02:00	*	*	*	*	*	*	2	4	1	2	2	3	4	1	9	11
03:00	*	*	*	*	*	*	4	3	4	5	4	4	5	2	5	6
04:00	*	*	*	*	*	*	3	6	1	6	2	6	3	4	2	6
05:00	*	*	*	*	*	*	5	21	6	20	6	20	5	5	0	5
06:00	*	*	*	*	*	*	23	29	23	21	23	25	8	18	9	19
07:00	*	*	*	*	*	*	38	49	52	51	45	50	19	37	18	28
08:00	*	*	*	*	*	*	**57**	**57**	49	51	53	**54**	24	46	26	27
09:00	*	*	*	*	*	*	37	48	30	**55**	34	52	50	53	44	43
10:00	*	*	*	*	*	*	46	42	52	51	49	46	**71**	67	62	**60**
11:00	*	*	*	*	*	*	49	46	**66**	54	**58**	50	65	**68**	**90**	58
12:00 PM	*	*	*	*	49	58	50	56	52	57	50	57	67	61	**94**	64
01:00	*	*	*	*	49	67	60	57	64	59	58	61	**88**	**78**	80	58
02:00	*	*	*	*	69	52	67	71	55	66	64	63	68	49	64	71
03:00	*	*	*	*	62	71	69	68	80	72	70	70	62	50	78	66
04:00	*	*	*	*	77	68	72	74	76	97	75	80	62	77	59	85
05:00	*	*	*	*	74	79	**77**	**89**	**94**	**99**	**82**	**89**	65	65	57	78
06:00	*	*	*	*	**85**	56	77	75	69	82	77	71	64	70	64	88
07:00	*	*	*	*	48	**81**	65	66	64	59	59	69	43	61	40	**98**
08:00	*	*	*	*	41	62	46	48	40	45	42	52	37	66	40	62
09:00	*	*	*	*	29	38	34	43	31	40	31	40	38	37	28	35
10:00	*	*	*	*	22	25	24	23	26	28	24	25	27	28	16	27
11:00	*	*	*	*	10	20	22	21	26	26	19	22	24	21	10	14
Total	0	0	0	0	615	677	942	1006	972	1073	940	1027	917	993	909	1037
Day	0		0		1292		1948		2045		1967		1910		1946	
AM Peak	-	-	-	-	-	-	08:00	08:00	11:00	09:00	11:00	08:00	10:00	11:00	11:00	10:00
Vol.	-	-	-	-	-	-	57	57	66	55	58	54	71	68	90	60
PM Peak	-	-	-	-	18:00	19:00	17:00	17:00	17:00	17:00	17:00	17:00	13:00	13:00	12:00	19:00
Vol.	-	-	-	-	85	81	77	89	94	99	82	89	88	78	94	98

Project: EAGLE BAY
Location: STONY POINT, NY
MC Job No. 18005404A

Maser Consulting

400 Columbus Avenue, Suite 180E
Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

Site Code: 018005404444
TOMKINS AVENUE (EAST OF HOOVER PLACE
AND WEST OF FARLEY DRIVE)
Latitude: 0' 0.0000 Undefined
Longitude: 0' 0.0000 Undefined

Start	8/27/2018		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
Time	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	5	3	*	*	*	*	*	*	*	*	5	3	*	*	*	*
01:00	0	3	*	*	*	*	*	*	*	*	0	3	*	*	*	*
02:00	0	7	*	*	*	*	*	*	*	*	0	7	*	*	*	*
03:00	0	1	*	*	*	*	*	*	*	*	0	1	*	*	*	*
04:00	4	6	*	*	*	*	*	*	*	*	4	6	*	*	*	*
05:00	4	23	*	*	*	*	*	*	*	*	4	23	*	*	*	*
06:00	26	35	*	*	*	*	*	*	*	*	26	35	*	*	*	*
07:00	52	42	*	*	*	*	*	*	*	*	52	42	*	*	*	*
08:00	**59**	58	*	*	*	*	*	*	*	*	**59**	58	*	*	*	*
09:00	40	36	*	*	*	*	*	*	*	*	40	36	*	*	*	*
10:00	41	**63**	*	*	*	*	*	*	*	*	41	**63**	*	*	*	*
11:00	45	48	*	*	*	*	*	*	*	*	45	48	*	*	*	*
12:00 PM	**61**	**41**	*	*	*	*	*	*	*	*	**61**	**41**	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	337	366	0	0	0	0	0	0	0	0	337	366	0	0	0	0
Day	703		0		0		0		0		703		0		0	
AM Peak	08:00	10:00	-	-	-	-	-	-	-	-	08:00	10:00	-	-	-	-
Vol.	59	63	-	-	-	-	-	-	-	-	59	63	-	-	-	-
PM Peak	12:00	12:00	-	-	-	-	-	-	-	-	12:00	12:00	-	-	-	-
Vol.	61	41	-	-	-	-	-	-	-	-	61	41	-	-	-	-

Comb. Total	703	0	1292	1948	2045	2670	1910	1946

ADT ADT 1,945 AADT 1,945

Maser Consulting

400 Columbus Avenue, Suite 180E
Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

Project: EAGLE BAY
Location: STONY POINT, NY
MC Job No. 18005404A

Site Code: 18005404 777
TOMKINS AVENUE (EAST OF HOOVER PLACE
AND WEST OF FARLEY DRIVE)
Latitude: 0' 0.0000 Undefined
Longitude: 0' 0.0000 Undefined

Start	8/27/2018		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
Time	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	*	*	3	3	6	4	5	8	15	13	7	7	16	11	5	10
01:00	*	*	4	4	6	6	2	3	4	8	4	5	8	6	8	11
02:00	*	*	3	0	1	2	3	0	3	0	2	0	5	8	3	5
03:00	*	*	3	2	1	2	4	4	4	0	3	2	4	0	4	3
04:00	*	*	3	6	3	7	2	8	2	8	2	7	2	6	3	5
05:00	*	*	5	27	8	31	7	24	7	22	7	26	2	7	4	8
06:00	*	*	26	31	22	29	18	32	18	26	21	30	6	17	5	12
07:00	*	*	44	46	**52**	57	40	39	41	33	44	44	21	25	9	28
08:00	*	*	**56**	**54**	50	48	**56**	**58**	47	50	**52**	52	40	45	31	33
09:00	*	*	40	47	41	59	37	43	36	45	38	48	48	58	28	50
10:00	*	*	36	52	37	35	37	53	45	**61**	39	50	**59**	66	**57**	**67**
11:00	*	*	41	51	50	**61**	46	47	**52**	55	47	**54**	55	**88**	57	55
12:00 PM	*	*	50	56	48	53	52	52	58	61	52	56	72	71	**95**	**76**
01:00	*	*	55	54	67	57	52	54	52	55	56	55	67	60	85	52
02:00	66	55	55	50	49	46	75	75	46	66	58	58	56	63	77	62
03:00	51	66	60	63	66	81	**84**	84	58	80	64	75	**76**	62	57	65
04:00	**74**	**87**	71	**81**	73	82	68	**95**	61	**86**	69	**86**	76	62	59	72
05:00	66	53	69	81	70	**91**	71	74	**68**	61	69	72	60	76	55	57
06:00	66	62	**72**	64	**83**	82	77	79	52	63	**70**	70	65	**77**	42	63
07:00	54	46	60	58	68	61	53	68	46	50	56	57	43	72	43	68
08:00	43	33	47	53	59	64	44	35	43	37	47	44	42	55	42	73
09:00	23	28	29	30	33	43	29	43	33	37	29	36	31	34	30	54
10:00	23	33	23	19	12	26	21	24	21	18	20	24	32	19	25	26
11:00	16	19	14	14	12	28	13	19	20	17	15	19	16	28	14	14
Total	482	482	869	946	917	1055	896	1021	832	952	871	977	902	1016	838	969
Day	964		1815		1972		1917		1784		1848		1918		1807	
AM Peak	-	-	08:00	08:00	07:00	11:00	08:00	08:00	11:00	10:00	08:00	11:00	10:00	11:00	10:00	10:00
Vol.	-	-	56	54	52	61	56	58	52	61	52	54	59	88	57	67
PM Peak	16:00	16:00	18:00	16:00	18:00	17:00	15:00	16:00	17:00	16:00	18:00	16:00	15:00	18:00	12:00	12:00
Vol.	74	87	72	81	83	91	84	95	68	86	70	86	76	77	95	76

Project: EAGLE BAY
Location: STONY POINT, NY
MC Job No. 18005404A

Maser Consulting

400 Columbus Avenue, Suite 180E
Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

Site Code: 18005404 777
TOMKINS AVENUE (EAST OF HOOVER PLACE
AND WEST OF FARLEY DRIVE)
Latitude: 0' 0.0000 Undefined
Longitude: 0' 0.0000 Undefined

Start	9/3/2018		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
Time	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	11	22	3	3	*	*	*	*	*	*	7	12	*	*	*	*
01:00	4	2	0	1	*	*	*	*	*	*	2	2	*	*	*	*
02:00	5	5	1	2	*	*	*	*	*	*	3	4	*	*	*	*
03:00	0	3	1	2	*	*	*	*	*	*	0	2	*	*	*	*
04:00	2	5	4	7	*	*	*	*	*	*	3	6	*	*	*	*
05:00	4	6	8	27	*	*	*	*	*	*	6	16	*	*	*	*
06:00	5	11	25	40	*	*	*	*	*	*	15	26	*	*	*	*
07:00	18	30	**60**	58	*	*	*	*	*	*	39	44	*	*	*	*
08:00	17	37	45	**77**	*	*	*	*	*	*	31	57	*	*	*	*
09:00	53	60	46	62	*	*	*	*	*	*	50	61	*	*	*	*
10:00	74	68	*	*	*	*	*	*	*	*	74	68	*	*	*	*
11:00	**81**	**80**	*	*	*	*	*	*	*	*	**81**	**80**	*	*	*	*
12:00 PM	82	57	*	*	*	*	*	*	*	*	82	57	*	*	*	*
01:00	**91**	71	*	*	*	*	*	*	*	*	**91**	71	*	*	*	*
02:00	76	49	*	*	*	*	*	*	*	*	76	49	*	*	*	*
03:00	71	64	*	*	*	*	*	*	*	*	71	64	*	*	*	*
04:00	67	64	*	*	*	*	*	*	*	*	67	64	*	*	*	*
05:00	65	**90**	*	*	*	*	*	*	*	*	65	**90**	*	*	*	*
06:00	49	87	*	*	*	*	*	*	*	*	49	87	*	*	*	*
07:00	42	89	*	*	*	*	*	*	*	*	42	89	*	*	*	*
08:00	51	57	*	*	*	*	*	*	*	*	51	57	*	*	*	*
09:00	24	43	*	*	*	*	*	*	*	*	24	43	*	*	*	*
10:00	12	9	*	*	*	*	*	*	*	*	12	9	*	*	*	*
11:00	6	13	*	*	*	*	*	*	*	*	6	13	*	*	*	*
Total	910	1022	193	279	0	0	0	0	0	0	947	1071	0	0	0	0
Day	1932		472		0		0		0		2018		0		0	
AM Peak	11:00	11:00	07:00	08:00	-	-	-	-	-	-	11:00	11:00	-	-	-	-
Vol.	81	80	60	77	-	-	-	-	-	-	81	80	-	-	-	-
PM Peak	13:00	17:00	-	-	-	-	-	-	-	-	13:00	17:00	-	-	-	-
Vol.	91	90	-	-	-	-	-	-	-	-	91	90	-	-	-	-

Comb. Total	2896	2287	1972	1917	1784	3866	1918	1807

ADT ADT 1,882 AADT 1,882

Maser Consulting

400 Columbus Avenue, Suite 180E
Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

Project: EAGLE BAY
Location: STONY POINT, NY
MC Job No. 18005404A

Site Code: 018005404444
TOMKINS AVENUE (EAST OF HOOVER PLACE
AND WEST OF FARLEY DRIVE)
Latitude: 0' 0.0000 Undefined
Longitude: 0' 0.0000 Undefined

Start	9/3/2018		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
Time	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	*	*	*	*	4	2	3	3	6	5	4	3	19	13	13	11
01:00	*	*	*	*	1	4	2	1	8	3	4	3	9	5	7	6
02:00	*	*	*	*	2	2	1	0	0	2	1	1	3	1	4	7
03:00	*	*	*	*	0	0	1	1	0	0	0	0	2	4	2	4
04:00	*	*	*	*	3	14	4	12	2	13	3	13	2	5	2	2
05:00	*	*	*	*	8	26	9	24	8	27	8	26	3	9	0	5
06:00	*	*	*	*	27	52	22	48	30	42	26	47	12	18	4	16
07:00	*	*	*	*	54	67	**63**	49	63	55	60	57	17	33	16	25
08:00	*	*	*	*	**61**	**69**	57	**61**	**71**	**81**	**63**	**70**	43	55	24	42
09:00	*	*	*	*	45	60	36	44	52	42	44	49	46	53	38	47
10:00	*	*	*	*	39	49	49	41	40	53	43	48	**64**	57	44	**62**
11:00	*	*	**50**	**41**	41	38	40	40	47	54	44	43	54	**59**	**55**	49
12:00 PM	*	*	56	58	61	58	48	53	36	39	50	52	70	61	**71**	**76**
01:00	*	*	55	55	55	54	39	39	59	58	52	52	**82**	**71**	48	46
02:00	*	*	51	63	53	65	58	69	60	67	56	66	76	59	47	41
03:00	*	*	62	55	**75**	**78**	76	84	68	96	70	78	58	62	43	53
04:00	*	*	**80**	**104**	66	71	**85**	**105**	**72**	**106**	**76**	**96**	57	50	59	53
05:00	*	*	69	79	65	77	75	73	71	72	70	75	53	60	49	60
06:00	*	*	66	58	69	67	70	67	57	76	66	67	62	64	33	36
07:00	*	*	54	59	60	59	48	57	56	53	54	57	46	62	28	37
08:00	*	*	37	38	36	43	29	30	41	43	36	38	30	50	27	22
09:00	*	*	29	22	28	14	33	22	39	34	32	23	25	27	21	19
10:00	*	*	21	8	17	19	19	21	25	28	20	19	25	23	23	18
11:00	*	*	10	10	13	11	13	9	14	15	12	11	11	18	17	7
Total	0	0	640	650	883	999	880	953	925	1064	894	994	869	919	675	744
Day	0		1290		1882		1833		1989		1888		1788		1419	
AM Peak	-	-	11:00	11:00	08:00	08:00	07:00	08:00	08:00	08:00	08:00	08:00	10:00	11:00	11:00	10:00
Vol.	-	-	50	41	61	69	63	61	71	81	63	70	64	59	55	62
PM Peak	-	-	16:00	16:00	15:00	15:00	16:00	16:00	16:00	16:00	16:00	16:00	13:00	13:00	12:00	12:00
Vol.	-	-	80	104	75	78	85	105	72	106	76	96	82	71	71	76

Project: EAGLE BAY
Location: STONY POINT, NY
MC Job No. 18005404A

Maser Consulting

400 Columbus Avenue, Suite 180E
Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

Site Code: 018005404444
TOMKINS AVENUE (EAST OF HOOVER PLACE
AND WEST OF FARLEY DRIVE)
Latitude: 0' 0.0000 Undefined
Longitude: 0' 0.0000 Undefined

Start	9/10/2018		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
Time	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	6	2	5	5	3	2	2	4	3	3	4	3	*	*	*	*
01:00	4	2	1	1	3	2	5	2	3	4	3	2	*	*	*	*
02:00	4	1	4	1	3	1	2	1	1	1	3	1	*	*	*	*
03:00	2	3	0	1	1	1	1	4	3	0	1	2	*	*	*	*
04:00	4	6	1	8	3	15	5	12	3	15	3	11	*	*	*	*
05:00	7	18	7	18	7	22	9	26	7	26	7	22	*	*	*	*
06:00	21	22	23	29	25	51	21	44	28	46	24	38	*	*	*	*
07:00	38	39	41	**51**	50	53	**59**	55	**57**	57	49	51	*	*	*	*
08:00	**54**	**52**	**54**	48	**56**	**71**	57	**66**	49	**60**	**54**	**59**	*	*	*	*
09:00	33	33	29	47	56	59	43	54	37	41	40	47	*	*	*	*
10:00	31	39	47	46	43	43	39	49	53	55	43	46	*	*	*	*
11:00	42	38	47	37	34	52	36	48	48	46	41	44	*	*	*	*
12:00 PM	37	36	63	55	46	37	52	49	*	*	50	44	*	*	*	*
01:00	55	51	54	65	41	43	55	52	*	*	51	53	*	*	*	*
02:00	45	45	49	60	49	65	45	55	*	*	47	56	*	*	*	*
03:00	38	**66**	60	60	59	79	**78**	81	*	*	59	72	*	*	*	*
04:00	**62**	57	61	**87**	72	**93**	67	84	*	*	**66**	**80**	*	*	*	*
05:00	56	50	64	73	**73**	85	68	**92**	*	*	65	75	*	*	*	*
06:00	50	42	**84**	68	59	84	71	72	*	*	66	66	*	*	*	*
07:00	40	38	50	52	52	48	50	42	*	*	48	45	*	*	*	*
08:00	32	22	35	48	31	32	33	40	*	*	33	36	*	*	*	*
09:00	26	22	22	27	28	26	31	25	*	*	27	25	*	*	*	*
10:00	20	11	19	16	17	15	22	26	*	*	20	17	*	*	*	*
11:00	10	4	5	3	14	16	7	5	*	*	9	7	*	*	*	*
Total	717	699	825	906	825	995	858	988	292	354	813	902	0	0	0	0
Day	1416		1731		1820		1846		646		1715		0		0	
AM Peak	08:00	08:00	08:00	07:00	08:00	08:00	07:00	08:00	07:00	08:00	08:00	08:00	-	-	-	-
Vol.	54	52	54	51	56	71	59	66	57	60	54	59	-	-	-	-
PM Peak	16:00	15:00	18:00	16:00	17:00	16:00	15:00	17:00	-	-	16:00	16:00	-	-	-	-
Vol.	62	66	84	87	73	93	78	92	-	-	66	80	-	-	-	-

Comb. Total	1416	3021	3702	3679	2635	3603	1788	1419

ADT ADT 1,757 AADT 1,757

Project: EAGLE BAY
Location: STONY POINT, NY
MC Job No. 18005404A

Maser Consulting

400 Columbus Avenue, Suite 180E
Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

Site Code: 18005404 111
TOMKINS AVENUE (EAST OF HOOVER PLACE
AND WEST OF FARLEY DRIVE)
Latitude: 0' 0.0000 Undefined
Longitude: 0' 0.0000 Undefined

Start	9/24/2018		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
Time	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	*	*	*	*	*	*	*	*	2	3	2	3	15	12	8	20
01:00	*	*	*	*	*	*	*	*	2	4	2	4	7	0	6	5
02:00	*	*	*	*	*	*	*	*	2	5	2	5	5	4	8	4
03:00	*	*	*	*	*	*	*	*	0	1	0	1	3	4	1	2
04:00	*	*	*	*	*	*	*	*	4	10	4	10	3	2	4	3
05:00	*	*	*	*	*	*	*	*	6	26	6	26	6	8	3	5
06:00	*	*	*	*	*	*	*	*	18	38	18	38	8	19	7	8
07:00	*	*	*	*	*	*	*	*	44	60	44	60	29	32	17	18
08:00	*	*	*	*	*	*	*	*	**58**	**68**	**58**	**68**	49	50	29	33
09:00	*	*	*	*	*	*	*	*	48	55	48	55	79	72	37	39
10:00	*	*	*	*	*	*	*	*	47	51	47	51	**92**	73	56	**65**
11:00	*	*	*	*	*	*	*	*	43	44	43	44	71	**88**	**66**	51
12:00 PM	*	*	*	*	*	*	*	*	55	49	55	49	**74**	70	81	89
01:00	*	*	*	*	*	*	43	55	37	52	40	54	72	75	80	84
02:00	*	*	*	*	*	*	58	56	62	65	60	60	58	65	**89**	80
03:00	*	*	*	*	*	*	80	71	72	81	76	76	65	74	75	89
04:00	*	*	*	*	*	*	**86**	**95**	**98**	91	**92**	93	72	74	78	81
05:00	*	*	*	*	*	*	61	93	73	**99**	67	**96**	72	**85**	56	**91**
06:00	*	*	*	*	*	*	70	72	75	77	72	74	50	80	54	75
07:00	*	*	*	*	*	*	41	61	59	60	50	60	48	63	40	49
08:00	*	*	*	*	*	*	41	42	38	40	40	41	32	39	37	30
09:00	*	*	*	*	*	*	29	20	30	33	30	26	28	35	23	22
10:00	*	*	*	*	*	*	21	10	30	30	26	20	31	24	15	14
11:00	*	*	*	*	*	*	12	4	12	10	12	7	14	22	7	13
Total	0	0	0	0	0	0	542	579	915	1052	894	1021	983	1070	877	970
Day	0		0		0		1121		1967		1915		2053		1847	
AM Peak	-	-	-	-	-	-	-	-	08:00	08:00	08:00	08:00	10:00	11:00	11:00	10:00
Vol.	-	-	-	-	-	-	-	-	58	68	58	68	92	88	66	65
PM Peak	-	-	-	-	-	-	16:00	16:00	16:00	17:00	16:00	17:00	12:00	17:00	14:00	17:00
Vol.	-	-	-	-	-	-	86	95	98	99	92	96	74	85	89	91

Project: EAGLE BAY
Location: STONY POINT, NY
MC Job No. 18005404A

Maser Consulting

400 Columbus Avenue, Suite 180E
Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

Site Code: 18005404 111
TOMKINS AVENUE (EAST OF HOOVER PLACE
AND WEST OF FARLEY DRIVE)
Latitude: 0' 0.0000 Undefined
Longitude: 0' 0.0000 Undefined

Start	10/1/2018		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
Time	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	5	4	1	6	9	7	5	8	6	4	5	6	*	*	*	*
01:00	5	5	3	0	1	1	3	1	6	1	4	2	*	*	*	*
02:00	3	5	2	0	4	0	5	1	3	0	3	1	*	*	*	*
03:00	2	3	0	3	0	1	1	4	0	1	1	2	*	*	*	*
04:00	7	10	3	9	2	18	1	7	1	8	3	10	*	*	*	*
05:00	6	24	2	22	9	24	6	29	5	26	6	25	*	*	*	*
06:00	27	50	27	54	30	51	32	29	22	45	28	46	*	*	*	*
07:00	**70**	67	64	75	58	**77**	**57**	**65**	44	55	59	68	*	*	*	*
08:00	65	**88**	**69**	**80**	54	68	56	64	**57**	**71**	**60**	**74**	*	*	*	*
09:00	63	84	51	63	**61**	50	41	63	*	*	54	65	*	*	*	*
10:00	35	44	45	62	44	56	34	39	*	*	40	50	*	*	*	*
11:00	56	54	44	45	53	56	52	45	*	*	51	50	*	*	*	*
12:00 PM	50	57	61	62	51	41	54	64	*	*	54	56	*	*	*	*
01:00	50	66	51	72	60	67	61	56	*	*	56	65	*	*	*	*
02:00	50	57	76	75	62	63	49	57	*	*	59	63	*	*	*	*
03:00	75	**107**	68	91	67	90	73	83	*	*	71	93	*	*	*	*
04:00	**106**	101	74	**95**	**91**	**119**	**77**	**103**	*	*	**87**	**104**	*	*	*	*
05:00	81	82	**77**	93	81	75	58	68	*	*	74	80	*	*	*	*
06:00	59	79	53	46	70	76	72	66	*	*	64	67	*	*	*	*
07:00	65	54	35	32	58	50	39	42	*	*	49	44	*	*	*	*
08:00	36	29	31	38	32	38	40	42	*	*	35	37	*	*	*	*
09:00	33	26	30	36	22	21	30	23	*	*	29	26	*	*	*	*
10:00	11	21	13	14	12	13	21	17	*	*	14	16	*	*	*	*
11:00	15	13	5	12	16	11	13	10	*	*	12	12	*	*	*	*
Total	975	1130	885	1085	947	1073	880	986	144	211	918	1062	0	0	0	0
Day	2105		1970		2020		1866		355		1980		0		0	
AM Peak	07:00	08:00	08:00	08:00	09:00	07:00	07:00	07:00	08:00	08:00	08:00	08:00	-	-	-	-
Vol.	70	88	69	80	61	77	57	65	57	71	60	74	-	-	-	-
PM Peak	16:00	15:00	17:00	16:00	16:00	16:00	16:00	16:00	-	-	16:00	16:00	-	-	-	-
Vol.	106	107	77	95	91	119	77	103	-	-	87	104	-	-	-	-

Comb. Total	2105	1970	2020	2987	2322	3895	2053	1847

ADT ADT 1,970 AADT 1,970

Maser Consulting

400 Columbus Avenue, Suite 180E
Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

Project: EAGLE BAY
Location: STONY POINT, NY
MC Job No. 18005404A

Site Code: 18005404 555
TOMKINS AVENUE (EAST OF HOOVER PLACE
AND WEST OF FARLEY DRIVE)
Latitude: 0' 0.0000 Undefined
Longitude: 0' 0.0000 Undefined

Start	10/1/2018		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
Time	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	*	*	*	*	*	*	*	*	*	*	*	*	14	4	17	20
01:00	*	*	*	*	*	*	*	*	*	*	*	*	7	6	12	12
02:00	*	*	*	*	*	*	*	*	*	*	*	*	5	7	6	5
03:00	*	*	*	*	*	*	*	*	*	*	*	*	2	6	3	2
04:00	*	*	*	*	*	*	*	*	*	*	*	*	2	6	5	1
05:00	*	*	*	*	*	*	*	*	*	*	*	*	3	8	2	7
06:00	*	*	*	*	*	*	*	*	*	*	*	*	7	13	5	12
07:00	*	*	*	*	*	*	*	*	*	*	*	*	24	28	12	18
08:00	*	*	*	*	*	*	*	*	*	*	*	*	37	36	23	32
09:00	*	*	*	*	*	*	*	*	*	*	*	*	43	55	37	44
10:00	*	*	*	*	*	*	*	*	37	**47**	37	**47**	54	**57**	46	62
11:00	*	*	*	*	*	*	*	*	**51**	46	**51**	46	**67**	54	**80**	**69**
12:00 PM	*	*	*	*	*	*	*	*	53	61	53	61	56	**71**	**95**	**81**
01:00	*	*	*	*	*	*	*	*	71	60	71	60	49	58	77	60
02:00	*	*	*	*	*	*	*	*	58	63	58	63	49	42	61	51
03:00	*	*	*	*	*	*	*	*	60	64	60	64	61	53	74	64
04:00	*	*	*	*	*	*	*	*	**84**	76	**84**	76	47	53	56	80
05:00	*	*	*	*	*	*	*	*	72	**104**	72	**104**	**62**	53	51	65
06:00	*	*	*	*	*	*	*	*	71	83	71	83	40	48	40	66
07:00	*	*	*	*	*	*	*	*	58	60	58	60	31	49	39	46
08:00	*	*	*	*	*	*	*	*	42	42	42	42	38	20	23	35
09:00	*	*	*	*	*	*	*	*	44	30	44	30	22	17	19	21
10:00	*	*	*	*	*	*	*	*	26	19	26	19	22	28	24	13
11:00	*	*	*	*	*	*	*	*	26	18	26	18	19	21	10	18
Total	0	0	0	0	0	0	0	0	753	773	753	773	761	793	817	884
Day	0		0		0		0		1526		1526		1554		1701	
AM Peak	-	-	-	-	-	-	-	-	11:00	10:00	11:00	10:00	11:00	10:00	11:00	11:00
Vol.	-	-	-	-	-	-	-	-	51	47	51	47	67	57	80	69
PM Peak	-	-	-	-	-	-	-	-	16:00	17:00	16:00	17:00	17:00	12:00	12:00	12:00
Vol.	-	-	-	-	-	-	-	-	84	104	84	104	62	71	95	81

Project: EAGLE BAY
Location: STONY POINT, NY
MC Job No. 18005404A

Maser Consulting

400 Columbus Avenue, Suite 180E
Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

Site Code: 18005404 555
TOMKINS AVENUE (EAST OF HOOVER PLACE
AND WEST OF FARLEY DRIVE)
Latitude: 0' 0.0000 Undefined
Longitude: 0' 0.0000 Undefined

Start	10/8/2018		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
Time	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	11	7	5	7	*	*	*	*	*	*	8	7	*	*	*	*
01:00	4	7	2	1	*	*	*	*	*	*	3	4	*	*	*	*
02:00	1	4	6	3	*	*	*	*	*	*	4	4	*	*	*	*
03:00	2	1	1	2	*	*	*	*	*	*	2	2	*	*	*	*
04:00	4	9	0	9	*	*	*	*	*	*	2	9	*	*	*	*
05:00	4	18	6	26	*	*	*	*	*	*	5	22	*	*	*	*
06:00	20	19	24	36	*	*	*	*	*	*	22	28	*	*	*	*
07:00	31	28	48	62	*	*	*	*	*	*	40	45	*	*	*	*
08:00	33	46	54	**90**	*	*	*	*	*	*	44	**68**	*	*	*	*
09:00	**45**	**49**	**60**	46	*	*	*	*	*	*	**52**	48	*	*	*	*
10:00	42	45	44	57	*	*	*	*	*	*	43	51	*	*	*	*
11:00	41	45	46	49	*	*	*	*	*	*	44	47	*	*	*	*
12:00 PM	47	46	*	*	*	*	*	*	*	*	47	46	*	*	*	*
01:00	41	45	*	*	*	*	*	*	*	*	41	45	*	*	*	*
02:00	52	63	*	*	*	*	*	*	*	*	52	63	*	*	*	*
03:00	56	69	*	*	*	*	*	*	*	*	56	69	*	*	*	*
04:00	50	**75**	*	*	*	*	*	*	*	*	50	**75**	*	*	*	*
05:00	**60**	74	*	*	*	*	*	*	*	*	**60**	74	*	*	*	*
06:00	52	53	*	*	*	*	*	*	*	*	52	53	*	*	*	*
07:00	41	34	*	*	*	*	*	*	*	*	41	34	*	*	*	*
08:00	35	26	*	*	*	*	*	*	*	*	35	26	*	*	*	*
09:00	32	15	*	*	*	*	*	*	*	*	32	15	*	*	*	*
10:00	24	15	*	*	*	*	*	*	*	*	24	15	*	*	*	*
11:00	11	11	*	*	*	*	*	*	*	*	11	11	*	*	*	*
Total	739	804	296	388	0	0	0	0	0	0	770	861	0	0	0	0
Day	1543		684		0		0		0		1631		0		0	
AM Peak	09:00	09:00	09:00	08:00	-	-	-	-	-	-	09:00	08:00	-	-	-	-
Vol.	45	49	60	90	-	-	-	-	-	-	52	68	-	-	-	-
PM Peak	17:00	16:00	-	-	-	-	-	-	-	-	17:00	16:00	-	-	-	-
Vol.	60	75	-	-	-	-	-	-	-	-	60	75	-	-	-	-

Comb. Total	1543	684	0	0	1526	3157	1554	1701

ADT ADT 1,700 AADT 1,700

Maser Consulting

400 Columbus Avenue, Suite 180E
Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

Project: EAGLE BAY
Location: STONY POINT, NY
MC Job No. 18005404A

Site Code: 18005404666
BEACH ROAD (APPROXIMATELY 425' NORTH OF EAST MAIN STREET)
Latitude: 0' 0.0000 Undefined
Longitude: 0' 0.0000 Undefined

Start	8/20/2018		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
Time	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
12:00 AM	*	*	*	*	*	*	5	6	7	5	6	6	5	9	5	10
01:00	*	*	*	*	*	*	2	2	5	8	4	5	2	13	4	16
02:00	*	*	*	*	*	*	4	5	0	3	2	4	1	2	4	11
03:00	*	*	*	*	*	*	3	4	2	1	2	2	1	1	1	6
04:00	*	*	*	*	*	*	6	1	3	1	4	1	4	2	1	1
05:00	*	*	*	*	*	*	2	1	7	4	4	2	2	2	0	3
06:00	*	*	*	*	*	*	24	10	23	11	24	10	12	11	8	11
07:00	*	*	*	*	*	*	**41**	19	**47**	18	**44**	18	18	19	13	14
08:00	*	*	*	*	*	*	37	24	36	25	36	24	14	19	18	18
09:00	*	*	*	*	*	*	19	25	23	25	21	25	20	18	25	22
10:00	*	*	*	*	*	*	28	25	27	31	28	28	31	38	43	**47**
11:00	*	*	*	*	**26**	**31**	33	**29**	47	**43**	35	**34**	**38**	**45**	**46**	40
12:00 PM	*	*	*	*	28	28	38	32	29	47	32	36	51	48	37	52
01:00	*	*	*	*	24	44	40	42	27	42	30	43	42	**67**	43	41
02:00	*	*	*	*	33	40	38	50	36	52	36	47	47	49	37	47
03:00	*	*	*	*	37	56	40	48	41	61	39	55	33	53	42	47
04:00	*	*	*	*	**58**	49	38	58	34	69	43	59	**52**	52	49	**55**
05:00	*	*	*	*	46	56	36	**64**	**56**	**72**	46	**64**	35	41	44	45
06:00	*	*	*	*	57	46	**43**	60	42	59	**47**	55	39	52	**52**	44
07:00	*	*	*	*	32	**76**	30	57	33	52	32	62	34	42	34	48
08:00	*	*	*	*	21	53	22	36	21	27	21	39	24	44	25	38
09:00	*	*	*	*	7	29	20	32	11	17	13	26	21	16	18	30
10:00	*	*	*	*	14	25	13	20	10	32	12	26	13	21	11	18
11:00	*	*	*	*	12	11	7	13	13	24	11	16	10	13	7	15
Total	0	0	0	0	395	544	569	663	580	729	572	687	549	677	567	679
Day	0		0		939		1232		1309		1259		1226		1246	
AM Peak	-	-	-	-	11:00	11:00	07:00	11:00	07:00	11:00	07:00	11:00	11:00	11:00	11:00	10:00
Vol.	-	-	-	-	26	31	41	29	47	43	44	34	38	45	46	47
PM Peak	-	-	-	-	16:00	19:00	18:00	17:00	17:00	17:00	18:00	17:00	16:00	13:00	18:00	16:00
Vol.	-	-	-	-	58	76	43	64	56	72	47	64	52	67	52	55

Maser Consulting

400 Columbus Avenue, Suite 180E
Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

Project: EAGLE BAY
Location: STONY POINT, NY
MC Job No. 18005404A

Site Code: 18005404666
BEACH ROAD (APPROXIMATELY 425' NORTH OF EAST MAIN STREET)
Latitude: 0' 0.0000 Undefined
Longitude: 0' 0.0000 Undefined

Start	8/27/2018		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
Time	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
12:00 AM	2	4	*	*	*	*	*	*	*	*	2	4	*	*	*	*
01:00	1	4	*	*	*	*	*	*	*	*	1	4	*	*	*	*
02:00	2	5	*	*	*	*	*	*	*	*	2	5	*	*	*	*
03:00	0	3	*	*	*	*	*	*	*	*	0	3	*	*	*	*
04:00	4	0	*	*	*	*	*	*	*	*	4	0	*	*	*	*
05:00	5	4	*	*	*	*	*	*	*	*	5	4	*	*	*	*
06:00	27	14	*	*	*	*	*	*	*	*	27	14	*	*	*	*
07:00	**40**	20	*	*	*	*	*	*	*	*	**40**	20	*	*	*	*
08:00	36	**35**	*	*	*	*	*	*	*	*	36	**35**	*	*	*	*
09:00	27	27	*	*	*	*	*	*	*	*	27	27	*	*	*	*
10:00	28	35	*	*	*	*	*	*	*	*	28	35	*	*	*	*
11:00	30	30	*	*	*	*	*	*	*	*	30	30	*	*	*	*
12:00 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	202	181	0	0	0	0	0	0	0	0	202	181	0	0	0	0
Day	383		0		0		0		0		383		0		0	
AM Peak	07:00	08:00	-	-	-	-	-	-	-	-	07:00	08:00	-	-	-	-
Vol.	40	35	-	-	-	-	-	-	-	-	40	35	-	-	-	-
PM Peak	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vol.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Comb. Total	383	0	939	1232	1309	1642	1226	1246
ADT	ADT 1,252	AADT 1,252						

Maser Consulting

400 Columbus Avenue, Suite 180E
Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

Project: EAGLE BAY
Location: STONY POINT, NY
MC Job No. 18005404A

Site Code: 18005404 888
BEACH ROAD (APPROXIMATELY 425' NORTH OF EAST MAIN STREET)
Latitude: 0' 0.0000 Undefined
Longitude: 0' 0.0000 Undefined

Start	8/27/2018		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
Time	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
12:00 AM	*	*	2	2	3	5	6	8	8	9	5	6	11	10	4	7
01:00	*	*	4	5	1	8	2	3	1	9	2	6	7	10	6	11
02:00	*	*	1	1	0	1	3	3	1	0	1	1	3	6	1	7
03:00	*	*	1	3	2	3	2	1	4	2	2	2	1	0	3	5
04:00	*	*	5	1	4	1	6	1	1	1	4	1	3	4	1	3
05:00	*	*	3	1	6	6	5	1	7	5	5	3	3	1	2	4
06:00	*	*	28	13	24	13	22	15	19	12	23	13	8	7	5	9
07:00	*	*	**43**	24	**39**	18	**47**	11	**44**	12	**43**	16	18	17	12	20
08:00	*	*	36	24	31	15	31	27	34	20	33	22	26	24	19	18
09:00	*	*	23	33	27	30	28	23	26	**30**	26	29	**32**	28	21	32
10:00	*	*	25	23	29	24	26	**32**	34	28	28	27	32	46	**39**	**37**
11:00	*	*	21	**37**	39	**38**	20	20	36	30	29	**31**	32	**48**	35	32
12:00 PM	*	*	30	31	25	37	29	33	20	41	26	36	41	51	**61**	59
01:00	25	42	28	36	32	51	27	41	31	43	29	43	30	48	52	54
02:00	35	39	30	41	34	40	37	44	30	51	33	43	33	47	40	57
03:00	35	61	33	49	30	56	38	67	**37**	**75**	35	62	**51**	41	42	60
04:00	**52**	**68**	39	62	44	67	39	**69**	27	68	**40**	**67**	46	**63**	46	**66**
05:00	35	44	**40**	**69**	39	**78**	33	56	34	50	36	59	38	57	37	33
06:00	36	53	35	44	43	59	**50**	58	28	42	38	51	43	39	40	39
07:00	31	40	35	57	**45**	55	24	54	27	31	32	47	31	45	24	42
08:00	24	29	26	39	44	54	25	33	21	36	28	38	25	38	18	38
09:00	20	27	17	31	13	38	15	27	15	26	16	30	25	25	15	45
10:00	13	26	14	20	10	32	10	19	11	21	12	24	18	18	22	26
11:00	9	17	7	11	10	20	11	15	5	14	8	15	13	28	11	19
Total	315	446	526	657	574	749	536	661	501	656	534	672	570	701	556	723
Day	761		1183		1323		1197		1157		1206		1271		1279	
AM Peak	-	-	07:00	11:00	07:00	11:00	07:00	10:00	07:00	09:00	07:00	11:00	09:00	11:00	10:00	10:00
Vol.	-	-	43	37	39	38	47	32	44	30	43	31	32	48	39	37
PM Peak	16:00	16:00	17:00	17:00	19:00	17:00	18:00	16:00	15:00	15:00	16:00	16:00	15:00	16:00	12:00	16:00
Vol.	52	68	40	69	45	78	50	69	37	75	40	67	51	63	61	66

Project: EAGLE BAY
Location: STONY POINT, NY
MC Job No. 18005404A

Maser Consulting

400 Columbus Avenue, Suite 180E
Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

Site Code: 18005404 888
BEACH ROAD (APPROXIMATELY 425' NORTH
OF EAST MAIN STREET)
Latitude: 0' 0.0000 Undefined
Longitude: 0' 0.0000 Undefined

Start	9/3/2018		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
Time	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
12:00 AM	5	12	2	7	*	*	*	*	*	*	4	10	*	*	*	*
01:00	2	5	0	0	*	*	*	*	*	*	1	2	*	*	*	*
02:00	2	4	0	4	*	*	*	*	*	*	1	4	*	*	*	*
03:00	1	4	2	0	*	*	*	*	*	*	2	2	*	*	*	*
04:00	3	3	3	1	*	*	*	*	*	*	3	2	*	*	*	*
05:00	3	3	4	2	*	*	*	*	*	*	4	2	*	*	*	*
06:00	5	4	22	14	*	*	*	*	*	*	14	9	*	*	*	*
07:00	11	14	**58**	23	*	*	*	*	*	*	34	18	*	*	*	*
08:00	15	26	34	**40**	*	*	*	*	*	*	24	33	*	*	*	*
09:00	33	39	24	29	*	*	*	*	*	*	28	34	*	*	*	*
10:00	**41**	39	*	*	*	*	*	*	*	*	**41**	39	*	*	*	*
11:00	41	**48**	*	*	*	*	*	*	*	*	41	**48**	*	*	*	*
12:00 PM	39	47	*	*	*	*	*	*	*	*	39	47	*	*	*	*
01:00	46	65	*	*	*	*	*	*	*	*	46	65	*	*	*	*
02:00	52	42	*	*	*	*	*	*	*	*	52	42	*	*	*	*
03:00	**54**	**66**	*	*	*	*	*	*	*	*	**54**	**66**	*	*	*	*
04:00	46	51	*	*	*	*	*	*	*	*	46	51	*	*	*	*
05:00	54	66	*	*	*	*	*	*	*	*	54	66	*	*	*	*
06:00	54	36	*	*	*	*	*	*	*	*	54	36	*	*	*	*
07:00	47	58	*	*	*	*	*	*	*	*	47	58	*	*	*	*
08:00	26	31	*	*	*	*	*	*	*	*	26	31	*	*	*	*
09:00	15	14	*	*	*	*	*	*	*	*	15	14	*	*	*	*
10:00	8	11	*	*	*	*	*	*	*	*	8	11	*	*	*	*
11:00	3	18	*	*	*	*	*	*	*	*	3	18	*	*	*	*
Total	606	706	149	120	0	0	0	0	0	0	641	708	0	0	0	0
Day	1312		269		0		0		0		1349		0		0	
AM Peak	10:00	11:00	07:00	08:00	-	-	-	-	-	-	10:00	11:00	-	-	-	-
Vol.	41	48	58	40	-	-	-	-	-	-	41	48	-	-	-	-
PM Peak	15:00	15:00	-	-	-	-	-	-	-	-	15:00	15:00	-	-	-	-
Vol.	54	66	-	-	-	-	-	-	-	-	54	66	-	-	-	-

Comb. Total	2073	1452	1323	1197	1157	2555	1271	1279

ADT ADT 1,245 AADT 1,245

Maser Consulting

400 Columbus Avenue, Suite 180E
Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

Project: EAGLE BAY
Location: STONY POINT, NY
MC Job No. 18005404A

Site Code: 18005404666
BEACH ROAD (APPROXIMATELY 425' NORTH OF EAST MAIN STREET)
Latitude: 0' 0.0000 Undefined
Longitude: 0' 0.0000 Undefined

Start	9/3/2018		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
Time	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
12:00 AM	*	*	*	*	0	1	1	4	0	2	0	2	5	13	5	9
01:00	*	*	*	*	1	2	2	2	1	0	1	1	5	3	4	5
02:00	*	*	*	*	0	1	0	1	1	2	0	1	1	1	0	6
03:00	*	*	*	*	0	0	0	0	0	0	0	0	0	3	0	2
04:00	*	*	*	*	1	0	2	2	2	4	2	2	2	2	2	0
05:00	*	*	*	*	5	2	4	1	7	1	5	1	2	2	0	1
06:00	*	*	*	*	22	23	25	20	24	18	24	20	14	8	6	9
07:00	*	*	*	*	**50**	24	**42**	20	46	22	**46**	22	17	12	11	12
08:00	*	*	*	*	44	29	39	23	**47**	**34**	43	**29**	19	25	19	25
09:00	*	*	*	*	30	**30**	27	30	28	15	28	25	33	34	18	19
10:00	*	*	*	*	21	30	31	25	22	25	25	27	**39**	31	25	**31**
11:00	*	*	**30**	**22**	17	24	26	**31**	24	30	24	27	21	**37**	**27**	30
12:00 PM	*	*	30	30	35	39	21	32	17	23	26	31	31	42	**50**	**43**
01:00	*	*	19	32	40	31	22	27	34	43	29	33	**42**	**58**	31	37
02:00	*	*	31	41	25	53	32	53	36	47	31	48	27	48	33	33
03:00	*	*	20	54	34	62	40	66	39	**78**	33	65	37	41	38	42
04:00	*	*	**40**	**78**	40	60	**50**	**73**	**45**	76	**44**	**72**	33	44	37	34
05:00	*	*	38	66	**42**	**63**	32	64	42	69	38	66	29	40	35	29
06:00	*	*	33	44	34	48	36	48	31	53	34	48	35	35	15	27
07:00	*	*	33	57	33	45	21	40	40	48	32	48	30	27	12	21
08:00	*	*	17	32	15	24	15	25	18	36	16	29	18	21	5	15
09:00	*	*	12	19	12	18	15	16	13	30	13	21	17	30	4	9
10:00	*	*	12	11	5	13	7	21	12	27	9	18	13	13	9	10
11:00	*	*	5	8	7	11	4	11	4	16	5	12	3	16	7	4
Total	0	0	320	494	513	633	494	635	533	699	508	648	473	586	393	453
Day	0		814		1146		1129		1232		1156		1059		846	
AM Peak	-	-	11:00	11:00	07:00	09:00	07:00	11:00	08:00	08:00	07:00	08:00	10:00	11:00	11:00	10:00
Vol.	-	-	30	22	50	30	42	31	47	34	46	29	39	37	27	31
PM Peak	-	-	16:00	16:00	17:00	17:00	16:00	16:00	16:00	15:00	16:00	16:00	13:00	13:00	12:00	12:00
Vol.	-	-	40	78	42	63	50	73	45	78	44	72	42	58	50	43

Project: EAGLE BAY
Location: STONY POINT, NY
MC Job No. 18005404A

Maser Consulting

400 Columbus Avenue, Suite 180E
Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

Site Code: 18005404666
BEACH ROAD (APPROXIMATELY 425' NORTH OF EAST MAIN STREET)
Latitude: 0' 0.0000 Undefined
Longitude: 0' 0.0000 Undefined

Start	9/10/2018		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
Time	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
12:00 AM	1	0	1	2	4	2	2	0	1	2	2	1	*	*	*	*
01:00	2	2	1	0	2	2	1	2	1	3	1	2	*	*	*	*
02:00	0	0	1	1	2	2	0	1	0	1	1	1	*	*	*	*
03:00	0	0	0	0	0	0	0	0	3	1	1	0	*	*	*	*
04:00	2	0	1	0	3	2	4	0	2	4	2	1	*	*	*	*
05:00	4	3	4	1	6	2	7	6	9	2	6	3	*	*	*	*
06:00	14	9	19	8	22	20	16	9	22	18	19	13	*	*	*	*
07:00	**34**	10	**38**	14	**47**	19	**45**	21	**53**	29	**43**	19	*	*	*	*
08:00	21	13	30	20	38	**36**	41	24	40	33	34	25	*	*	*	*
09:00	17	16	25	27	33	27	22	**31**	28	28	25	26	*	*	*	*
10:00	15	**21**	24	22	29	23	26	30	27	**34**	24	26	*	*	*	*
11:00	19	15	30	**33**	14	35	18	22	31	32	22	**27**	*	*	*	*
12:00 PM	14	11	40	37	28	27	34	35	*	*	29	28	*	*	*	*
01:00	19	16	32	51	27	30	35	37	*	*	28	34	*	*	*	*
02:00	24	**29**	36	58	34	55	27	50	*	*	30	48	*	*	*	*
03:00	8	28	**46**	58	33	67	**47**	69	*	*	34	56	*	*	*	*
04:00	**25**	27	28	**69**	**46**	**80**	44	63	*	*	**36**	**60**	*	*	*	*
05:00	9	27	37	59	26	67	35	**73**	*	*	27	56	*	*	*	*
06:00	16	25	43	41	28	56	28	56	*	*	29	44	*	*	*	*
07:00	12	11	22	40	20	36	21	23	*	*	19	28	*	*	*	*
08:00	7	9	18	45	16	21	10	24	*	*	13	25	*	*	*	*
09:00	9	7	12	18	8	23	16	19	*	*	11	17	*	*	*	*
10:00	5	10	9	12	4	11	7	19	*	*	6	13	*	*	*	*
11:00	5	6	7	5	6	13	6	5	*	*	6	7	*	*	*	*
Total	282	295	504	621	476	656	492	619	217	187	448	560	0	0	0	0
Day	577		1125		1132		1111		404		1008		0		0	
AM Peak	07:00	10:00	07:00	11:00	07:00	08:00	07:00	09:00	07:00	10:00	07:00	11:00	-	-	-	-
Vol.	34	21	38	33	47	36	45	31	53	34	43	27	-	-	-	-
PM Peak	16:00	14:00	15:00	16:00	16:00	16:00	15:00	17:00	-	-	16:00	16:00	-	-	-	-
Vol.	25	29	46	69	46	80	47	73	-	-	36	60	-	-	-	-

Comb. Total	577	1939	2278	2240	1636	2164	1059	846

ADT ADT 1,052 AADT 1,052

Maser Consulting

400 Columbus Avenue, Suite 180E
Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

Project: EAGLE BAY
Location: STONY POINT, NY
MC Job No.18005404A

Site Code: 18005404 888
BEACH ROAD (APPROXIMATELY 425' NORTH OF EAST MAIN STREET)
Latitude: 0' 0.0000 Undefined
Longitude: 0' 0.0000 Undefined

Start	9/24/2018		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
Time	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
12:00 AM	*	*	*	*	*	*	*	*	2	0	2	0	7	11	1	14
01:00	*	*	*	*	*	*	*	*	2	4	2	4	4	1	7	5
02:00	*	*	*	*	*	*	*	*	0	5	0	5	4	3	3	5
03:00	*	*	*	*	*	*	*	*	0	0	0	0	0	5	0	1
04:00	*	*	*	*	*	*	*	*	4	1	4	1	3	0	1	0
05:00	*	*	*	*	*	*	*	*	8	2	8	2	5	2	1	1
06:00	*	*	*	*	*	*	*	*	18	16	18	16	11	10	9	9
07:00	*	*	*	*	*	*	*	*	36	18	36	18	17	14	13	10
08:00	*	*	*	*	*	*	*	*	**38**	**29**	**38**	**29**	21	20	17	17
09:00	*	*	*	*	*	*	*	*	34	27	34	27	30	**47**	30	15
10:00	*	*	*	*	*	*	*	*	29	20	29	20	**52**	37	34	42
11:00	*	*	*	*	*	*	*	*	20	28	20	28	34	47	**48**	**43**
12:00 PM	*	*	*	*	*	*	38	32	28	26	33	29	39	41	**55**	59
01:00	*	*	*	*	*	*	23	54	22	40	22	47	43	**74**	51	57
02:00	*	*	*	*	*	*	29	33	29	42	29	38	31	46	43	59
03:00	*	*	*	*	*	*	35	59	32	61	34	60	33	59	41	**64**
04:00	*	*	*	*	*	*	**54**	65	**44**	**72**	**49**	68	**48**	46	52	44
05:00	*	*	*	*	*	*	42	**83**	44	70	43	**76**	46	50	41	45
06:00	*	*	*	*	*	*	27	55	30	50	28	52	41	38	26	54
07:00	*	*	*	*	*	*	16	47	22	49	19	48	25	28	16	34
08:00	*	*	*	*	*	*	14	31	16	23	15	27	13	17	15	20
09:00	*	*	*	*	*	*	8	16	16	25	12	20	24	25	10	15
10:00	*	*	*	*	*	*	6	6	9	27	8	16	15	23	5	7
11:00	*	*	*	*	*	*	7	3	8	16	8	10	6	20	2	6
Total	0	0	0	0	0	0	299	484	491	651	491	641	552	664	521	626
Day	0		0		0		783		1142		1132		1216		1147	
AM Peak	-	-	-	-	-	-	-	-	08:00	08:00	08:00	08:00	10:00	09:00	11:00	11:00
Vol.	-	-	-	-	-	-	-	-	38	29	38	29	52	47	48	43
PM Peak	-	-	-	-	-	-	16:00	17:00	16:00	16:00	16:00	17:00	16:00	13:00	12:00	15:00
Vol.	-	-	-	-	-	-	54	83	44	72	49	76	48	74	55	64

Project: EAGLE BAY
Location: STONY POINT, NY
MC Job No.18005404A

Maser Consulting

400 Columbus Avenue, Suite 180E
Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

Site Code: 18005404 888
BEACH ROAD (APPROXIMATELY 425' NORTH OF EAST MAIN STREET)
Latitude: 0' 0.0000 Undefined
Longitude: 0' 0.0000 Undefined

Start	10/1/2018		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
Time	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
12:00 AM	1	1	2	3	4	3	*	*	*	*	2	2	*	*	*	*
01:00	3	3	2	1	2	2	*	*	*	*	2	2	*	*	*	*
02:00	1	1	1	0	2	1	*	*	*	*	1	1	*	*	*	*
03:00	0	2	0	0	0	1	*	*	*	*	0	1	*	*	*	*
04:00	4	1	2	0	3	1	*	*	*	*	3	1	*	*	*	*
05:00	3	3	3	3	5	3	*	*	*	*	4	3	*	*	*	*
06:00	27	18	23	16	23	12	*	*	*	*	24	15	*	*	*	*
07:00	33	26	**35**	22	37	25	*	*	*	*	35	24	*	*	*	*
08:00	**46**	39	35	30	**42**	33	*	*	*	*	**41**	34	*	*	*	*
09:00	21	26	27	19	35	26	*	*	*	*	28	24	*	*	*	*
10:00	27	29	21	30	20	**34**	*	*	*	*	23	31	*	*	*	*
11:00	24	**40**	23	**34**	29	34	*	*	*	*	25	**36**	*	*	*	*
12:00 PM	20	26	39	40	31	28	*	*	*	*	30	31	*	*	*	*
01:00	18	33	25	37	**33**	**38**	*	*	*	*	25	36	*	*	*	*
02:00	23	42	30	57	*	*	*	*	*	*	26	50	*	*	*	*
03:00	37	69	25	50	*	*	*	*	*	*	31	60	*	*	*	*
04:00	**47**	**73**	31	54	*	*	*	*	*	*	39	**64**	*	*	*	*
05:00	38	61	**42**	**64**	*	*	*	*	*	*	**40**	62	*	*	*	*
06:00	35	55	24	47	*	*	*	*	*	*	30	51	*	*	*	*
07:00	22	32	22	21	*	*	*	*	*	*	22	26	*	*	*	*
08:00	17	20	23	23	*	*	*	*	*	*	20	22	*	*	*	*
09:00	15	18	15	20	*	*	*	*	*	*	15	19	*	*	*	*
10:00	9	11	10	6	*	*	*	*	*	*	10	8	*	*	*	*
11:00	5	8	3	8	*	*	*	*	*	*	4	8	*	*	*	*
Total	476	637	463	585	266	241	0	0	0	0	480	611	0	0	0	0
Day	1113		1048		507		0		0		1091		0		0	
AM Peak	08:00	11:00	07:00	11:00	08:00	10:00	-	-	-	-	08:00	11:00	-	-	-	-
Vol.	46	40	35	34	42	34	-	-	-	-	41	36	-	-	-	-
PM Peak	16:00	16:00	17:00	17:00	13:00	13:00	-	-	-	-	17:00	16:00	-	-	-	-
Vol.	47	73	42	64	33	38	-	-	-	-	40	64	-	-	-	-

Comb. Total	1113	1048	507	783	1142	2223	1216	1147

ADT ADT 1,132 AADT 1,132

Maser Consulting

400 Columbus Avenue, Suite 180E
Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

Project: EAGLE BAY
Location: STONY POINT, NY
MC Job No. 18005404A

Site Code: 018005404666
BEACH ROAD (APPROXIMATELY 425' NORTH OF EAST MAIN STREET)
Latitude: 0' 0.0000 Undefined
Longitude: 0' 0.0000 Undefined

Start	10/1/2018		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
Time	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
12:00 AM	*	*	*	*	*	*	*	*	*	*	*	*	4	6	4	12
01:00	*	*	*	*	*	*	*	*	*	*	*	*	2	6	3	10
02:00	*	*	*	*	*	*	*	*	*	*	*	*	2	3	1	3
03:00	*	*	*	*	*	*	*	*	*	*	*	*	1	5	1	4
04:00	*	*	*	*	*	*	*	*	*	*	*	*	1	1	2	1
05:00	*	*	*	*	*	*	*	*	*	*	*	*	3	4	4	5
06:00	*	*	*	*	*	*	*	*	*	*	*	*	7	7	5	2
07:00	*	*	*	*	*	*	*	*	*	*	*	*	24	12	8	8
08:00	*	*	*	*	*	*	*	*	*	*	*	*	26	21	19	16
09:00	*	*	*	*	*	*	*	*	*	*	*	*	30	24	30	32
10:00	*	*	*	*	*	*	*	*	27	25	27	25	24	**34**	31	32
11:00	*	*	*	*	*	*	*	*	**28**	**34**	**28**	**34**	**31**	32	**36**	**43**
12:00 PM	*	*	*	*	*	*	*	*	30	45	30	45	38	**52**	48	53
01:00	*	*	*	*	*	*	*	*	35	43	35	43	**39**	35	42	34
02:00	*	*	*	*	*	*	*	*	38	44	38	44	26	33	31	39
03:00	*	*	*	*	*	*	*	*	30	59	30	59	30	34	47	51
04:00	*	*	*	*	*	*	*	*	38	70	38	70	28	44	**49**	**56**
05:00	*	*	*	*	*	*	*	*	35	**71**	35	**71**	38	32	37	50
06:00	*	*	*	*	*	*	*	*	**40**	47	**40**	47	27	30	26	37
07:00	*	*	*	*	*	*	*	*	20	40	20	40	9	16	10	23
08:00	*	*	*	*	*	*	*	*	13	17	13	17	15	16	12	22
09:00	*	*	*	*	*	*	*	*	11	22	11	22	14	19	9	13
10:00	*	*	*	*	*	*	*	*	10	22	10	22	7	16	13	12
11:00	*	*	*	*	*	*	*	*	7	12	7	12	9	19	7	19
Total	0	0	0	0	0	0	0	0	362	551	362	551	435	501	475	577
Day	0		0		0		0		913		913		936		1052	
AM Peak	-	-	-	-	-	-	-	-	11:00	11:00	11:00	11:00	11:00	10:00	11:00	11:00
Vol.	-	-	-	-	-	-	-	-	28	34	28	34	31	34	36	43
PM Peak	-	-	-	-	-	-	-	-	18:00	17:00	18:00	17:00	13:00	12:00	16:00	16:00
Vol.	-	-	-	-	-	-	-	-	40	71	40	71	39	52	49	56

Maser Consulting

400 Columbus Avenue, Suite 180E
Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

Project: EAGLE BAY
Location: STONY POINT, NY
MC Job No. 18005404A

Site Code: 018005404666
BEACH ROAD (APPROXIMATELY 425' NORTH OF EAST MAIN STREET)
Latitude: 0' 0.0000 Undefined
Longitude: 0' 0.0000 Undefined

Start	10/8/2018		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
Time	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
12:00 AM	2	6	4	5	*	*	*	*	*	*	3	6	*	*	*	*
01:00	0	4	2	3	*	*	*	*	*	*	1	4	*	*	*	*
02:00	0	2	0	1	*	*	*	*	*	*	0	2	*	*	*	*
03:00	2	0	2	0	*	*	*	*	*	*	2	0	*	*	*	*
04:00	2	1	0	0	*	*	*	*	*	*	1	0	*	*	*	*
05:00	5	1	6	1	*	*	*	*	*	*	6	1	*	*	*	*
06:00	16	7	27	17	*	*	*	*	*	*	22	12	*	*	*	*
07:00	**34**	16	39	27	*	*	*	*	*	*	**36**	22	*	*	*	*
08:00	27	21	**43**	**39**	*	*	*	*	*	*	35	30	*	*	*	*
09:00	28	29	32	22	*	*	*	*	*	*	30	26	*	*	*	*
10:00	25	**30**	24	35	*	*	*	*	*	*	24	**32**	*	*	*	*
11:00	20	26	33	35	*	*	*	*	*	*	26	30	*	*	*	*
12:00 PM	28	29	*	*	*	*	*	*	*	*	28	29	*	*	*	*
01:00	26	27	*	*	*	*	*	*	*	*	26	27	*	*	*	*
02:00	30	47	*	*	*	*	*	*	*	*	30	47	*	*	*	*
03:00	20	42	*	*	*	*	*	*	*	*	20	42	*	*	*	*
04:00	22	**62**	*	*	*	*	*	*	*	*	22	**62**	*	*	*	*
05:00	**31**	50	*	*	*	*	*	*	*	*	**31**	50	*	*	*	*
06:00	22	22	*	*	*	*	*	*	*	*	22	22	*	*	*	*
07:00	16	24	*	*	*	*	*	*	*	*	16	24	*	*	*	*
08:00	10	20	*	*	*	*	*	*	*	*	10	20	*	*	*	*
09:00	11	7	*	*	*	*	*	*	*	*	11	7	*	*	*	*
10:00	8	13	*	*	*	*	*	*	*	*	8	13	*	*	*	*
11:00	3	7	*	*	*	*	*	*	*	*	3	7	*	*	*	*
Total	388	493	212	185	0	0	0	0	0	0	413	515	0	0	0	0
Day	881		397		0		0		0		928		0		0	
AM Peak	07:00	10:00	08:00	08:00	-	-	-	-	-	-	07:00	10:00	-	-	-	-
Vol.	34	30	43	39	-	-	-	-	-	-	36	32	-	-	-	-
PM Peak	17:00	16:00	-	-	-	-	-	-	-	-	17:00	16:00	-	-	-	-
Vol.	31	62	-	-	-	-	-	-	-	-	31	62	-	-	-	-

Comb. Total	881	397	0	0	913	1841	936	1052
ADT	ADT 1,015	AADT 1,015						

Maser Consulting

400 Columbus Avenue, Suite 180E
Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

Project: EAGLE BAY
Location: STONEY POINT, NY
MC Job No. 18005404A

Site Code: 18005404 999
E. MAIN STREET (EAST OF LEE AVENUE
AND WEST OF HUDSON AVENUE)
Latitude: 0' 0.0000 Undefined
Longitude: 0' 0.0000 Undefined

Start	8/20/2018		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
Time	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	*	*	*	*	*	*	30	25	24	14	27	20	38	23	34	35
01:00	*	*	*	*	*	*	11	9	15	6	13	8	16	24	16	21
02:00	*	*	*	*	*	*	13	5	7	5	10	5	9	13	17	14
03:00	*	*	*	*	*	*	5	8	0	8	2	8	2	5	8	7
04:00	*	*	*	*	*	*	8	21	8	21	8	21	0	9	6	7
05:00	*	*	*	*	*	*	12	34	11	35	12	34	5	10	3	9
06:00	*	*	*	*	*	*	28	67	34	75	31	71	24	27	15	14
07:00	*	*	*	*	*	*	81	115	98	128	90	122	50	75	36	43
08:00	*	*	*	*	*	*	81	**152**	77	**167**	79	**160**	93	87	58	69
09:00	*	*	*	*	*	*	90	107	95	104	92	106	117	108	166	102
10:00	*	*	*	*	*	*	100	143	115	135	108	139	95	**156**	121	**206**
11:00	*	*	*	*	**105**	**109**	**119**	135	**120**	141	**115**	128	**157**	101	**192**	152
12:00 PM	*	*	*	*	139	140	132	135	138	144	136	140	216	122	153	**204**
01:00	*	*	*	*	126	159	141	151	154	129	140	146	**238**	138	**178**	140
02:00	*	*	*	*	129	146	129	136	168	150	142	144	138	134	140	144
03:00	*	*	*	*	146	163	131	150	173	167	150	160	139	191	121	148
04:00	*	*	*	*	162	161	163	146	185	153	170	153	133	155	118	136
05:00	*	*	*	*	231	134	187	**186**	181	144	200	155	194	135	134	143
06:00	*	*	*	*	**237**	146	**197**	152	**211**	159	**215**	152	134	**203**	124	162
07:00	*	*	*	*	182	**187**	143	151	184	**182**	170	**173**	122	163	119	140
08:00	*	*	*	*	102	157	113	118	92	129	102	135	115	142	78	127
09:00	*	*	*	*	79	93	67	85	87	87	78	88	98	78	58	68
10:00	*	*	*	*	55	68	68	52	54	53	59	58	57	49	39	54
11:00	*	*	*	*	37	26	30	20	54	48	40	31	49	55	25	25
Total	0	0	0	0	1730	1689	2079	2303	2285	2384	2189	2357	2239	2203	1959	2170
Day	0		0		3419		4382		4669		4546		4442		4129	
AM Peak	-	-	-	-	11:00	11:00	11:00	08:00	11:00	08:00	11:00	08:00	11:00	10:00	11:00	10:00
Vol.	-	-	-	-	105	109	119	152	120	167	115	160	157	156	192	206
PM Peak	-	-	-	-	18:00	19:00	18:00	17:00	18:00	19:00	18:00	19:00	13:00	18:00	13:00	12:00
Vol.	-	-	-	-	237	187	197	186	211	182	215	173	238	203	178	204

Project: EAGLE BAY
Location: STONEY POINT, NY
MC Job No. 18005404A

Maser Consulting

400 Columbus Avenue, Suite 180E
Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

Site Code: 18005404 999
E. MAIN STREET (EAST OF LEE AVENUE
AND WEST OF HUDSON AVENUE)
Latitude: 0' 0.0000 Undefined
Longitude: 0' 0.0000 Undefined

Start	8/27/2018		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
Time	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	17	13	*	*	*	*	*	*	*	*	17	13	*	*	*	*
01:00	13	3	*	*	*	*	*	*	*	*	13	3	*	*	*	*
02:00	1	3	*	*	*	*	*	*	*	*	1	3	*	*	*	*
03:00	1	8	*	*	*	*	*	*	*	*	1	8	*	*	*	*
04:00	11	22	*	*	*	*	*	*	*	*	11	22	*	*	*	*
05:00	11	38	*	*	*	*	*	*	*	*	11	38	*	*	*	*
06:00	34	78	*	*	*	*	*	*	*	*	34	78	*	*	*	*
07:00	92	109	*	*	*	*	*	*	*	*	92	109	*	*	*	*
08:00	72	129	*	*	*	*	*	*	*	*	72	129	*	*	*	*
09:00	104	118	*	*	*	*	*	*	*	*	104	118	*	*	*	*
10:00	105	120	*	*	*	*	*	*	*	*	105	120	*	*	*	*
11:00	**117**	**138**	*	*	*	*	*	*	*	*	**117**	**138**	*	*	*	*
12:00 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	578	779	0	0	0	0	0	0	0	0	578	779	0	0	0	0
Day	1357		0		0		0		0		1357		0		0	
AM Peak	11:00	11:00	-	-	-	-	-	-	-	-	11:00	11:00	-	-	-	-
Vol.	117	138	-	-	-	-	-	-	-	-	117	138	-	-	-	-
PM Peak	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vol.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Comb. Total	1357	0	3419	4382	4669	5903	4442	4129

ADT ADT 4,427 AADT 4,427

Maser Consulting

400 Columbus Avenue, Suite 180E
Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

Project: EAGLE BAY
Location: STONEY POINT, NY
MC Job No. 18005404A

Site Code: 18005404 111
E. MAIN STREET (EAST OF LEE AVENUE
AND WEST OF HUDSON AVENUE)
Latitude: 0' 0.0000 Undefined
Longitude: 0' 0.0000 Undefined

Start	8/27/2018		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
Time	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	*	*	14	15	19	14	16	14	20	16	17	15	25	29	41	35
01:00	*	*	12	4	6	5	11	8	11	10	10	7	24	10	20	22
02:00	*	*	2	0	8	0	5	3	8	4	6	2	14	12	10	17
03:00	*	*	2	4	3	11	5	8	4	6	4	7	13	6	4	6
04:00	*	*	10	25	9	22	7	23	8	13	8	21	7	7	5	7
05:00	*	*	12	35	12	37	14	48	9	45	12	41	8	11	7	7
06:00	*	*	38	74	33	72	36	63	35	62	36	68	21	24	19	12
07:00	*	*	89	**141**	80	124	89	105	80	104	84	118	31	64	27	38
08:00	*	*	72	133	83	**151**	74	**149**	79	**151**	77	**146**	79	98	72	84
09:00	*	*	91	104	87	87	83	107	87	124	87	106	84	112	**180**	101
10:00	*	*	115	126	**95**	102	103	115	117	128	108	118	111	131	91	**195**
11:00	*	*	**126**	112	86	139	**106**	115	**127**	126	**111**	123	**133**	**132**	172	118
12:00 PM	*	*	128	137	122	125	125	121	137	127	128	128	138	128	147	**207**
01:00	121	116	112	109	130	123	122	122	138	141	125	122	151	143	**164**	132
02:00	123	123	117	110	110	104	127	125	121	**149**	120	122	159	129	140	131
03:00	143	131	110	134	133	138	158	136	132	127	135	133	154	144	149	135
04:00	137	138	126	141	173	155	165	144	148	131	150	142	164	130	137	122
05:00	**159**	**150**	**203**	**155**	**202**	**166**	**195**	**154**	**165**	132	**185**	**151**	**195**	156	116	116
06:00	147	113	176	130	194	147	164	130	149	132	166	130	129	**187**	125	127
07:00	127	126	131	120	139	157	143	138	122	96	132	127	116	121	102	104
08:00	106	83	95	103	114	156	115	110	108	91	108	109	110	104	104	123
09:00	54	51	67	62	81	110	107	86	59	65	74	75	88	79	89	116
10:00	56	38	61	48	54	69	51	51	70	59	58	53	58	70	55	58
11:00	23	21	34	24	34	37	33	29	46	34	34	29	48	59	30	42
Total	1196	1090	1943	2046	2007	2251	2054	2104	1980	2073	1975	2093	2060	2086	2006	2055
Day	2286		3989		4258		4158		4053		4068		4146		4061	
AM Peak	-	-	11:00	07:00	10:00	08:00	11:00	08:00	11:00	08:00	11:00	08:00	11:00	11:00	09:00	10:00
Vol.	-	-	126	141	95	151	106	149	127	151	111	146	133	132	180	195
PM Peak	17:00	17:00	17:00	17:00	17:00	17:00	17:00	17:00	17:00	14:00	17:00	17:00	17:00	18:00	13:00	12:00
Vol.	159	150	203	155	202	166	195	154	165	149	185	151	195	187	164	207

Project: EAGLE BAY
Location: STONEY POINT, NY
MC Job No. 18005404A

Maser Consulting

400 Columbus Avenue, Suite 180E
Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

Site Code: 18005404 111
E. MAIN STREET (EAST OF LEE AVENUE
AND WEST OF HUDSON AVENUE)
Latitude: 0' 0.0000 Undefined
Longitude: 0' 0.0000 Undefined

Start	9/3/2018		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
Time	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	33	22	16	7	*	*	*	*	*	*	24	14	*	*	*	*
01:00	16	16	7	10	*	*	*	*	*	*	12	13	*	*	*	*
02:00	6	5	5	2	*	*	*	*	*	*	6	4	*	*	*	*
03:00	6	4	0	5	*	*	*	*	*	*	3	4	*	*	*	*
04:00	3	6	10	18	*	*	*	*	*	*	6	12	*	*	*	*
05:00	1	17	11	46	*	*	*	*	*	*	6	32	*	*	*	*
06:00	17	19	41	84	*	*	*	*	*	*	29	52	*	*	*	*
07:00	55	39	**109**	133	*	*	*	*	*	*	82	86	*	*	*	*
08:00	69	73	87	**183**	*	*	*	*	*	*	78	128	*	*	*	*
09:00	100	101	98	123	*	*	*	*	*	*	99	112	*	*	*	*
10:00	125	**165**	*	*	*	*	*	*	*	*	125	**165**	*	*	*	*
11:00	**215**	151	*	*	*	*	*	*	*	*	**215**	151	*	*	*	*
12:00 PM	171	144	*	*	*	*	*	*	*	*	171	144	*	*	*	*
01:00	**172**	154	*	*	*	*	*	*	*	*	**172**	154	*	*	*	*
02:00	143	143	*	*	*	*	*	*	*	*	143	143	*	*	*	*
03:00	142	145	*	*	*	*	*	*	*	*	142	145	*	*	*	*
04:00	115	140	*	*	*	*	*	*	*	*	115	140	*	*	*	*
05:00	114	143	*	*	*	*	*	*	*	*	114	143	*	*	*	*
06:00	120	130	*	*	*	*	*	*	*	*	120	130	*	*	*	*
07:00	107	**158**	*	*	*	*	*	*	*	*	107	**158**	*	*	*	*
08:00	65	96	*	*	*	*	*	*	*	*	65	96	*	*	*	*
09:00	68	56	*	*	*	*	*	*	*	*	68	56	*	*	*	*
10:00	31	37	*	*	*	*	*	*	*	*	31	37	*	*	*	*
11:00	28	16	*	*	*	*	*	*	*	*	28	16	*	*	*	*
Total	1922	1980	384	611	0	0	0	0	0	0	1961	2135	0	0	0	0
Day	3902		995		0		0		0		4096		0		0	
AM Peak	11:00	10:00	07:00	08:00	-	-	-	-	-	-	11:00	10:00	-	-	-	-
Vol.	215	165	109	183	-	-	-	-	-	-	215	165	-	-	-	-
PM Peak	13:00	19:00	-	-	-	-	-	-	-	-	13:00	19:00	-	-	-	-
Vol.	172	158	-	-	-	-	-	-	-	-	172	158	-	-	-	-

Comb. Total	6188	4984	4258	4158	4053	8164	4146	4061

ADT ADT 4,080 AADT 4,080

Maser Consulting

400 Columbus Avenue, Suite 180E
Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

Project: EAGLE BAY
Location: STONY POINT, NY
MC Job No. 18005404A

Site Code: 18005404 999
E. MAIN STREET (EAST OF LEE AVENUE
AND WEST OF HUDSON AVENUE)
Latitude: 0' 0.0000 Undefined
Longitude: 0' 0.0000 Undefined

Start	9/3/2018		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
Time	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	*	*	*	*	19	8	12	8	6	4	12	7	27	24	37	23
01:00	*	*	*	*	8	3	9	4	8	4	8	4	11	12	15	10
02:00	*	*	*	*	6	4	9	4	6	5	7	4	9	6	14	4
03:00	*	*	*	*	2	5	3	7	2	6	2	6	6	3	7	6
04:00	*	*	*	*	5	24	9	22	10	17	8	21	7	11	7	3
05:00	*	*	*	*	8	35	9	36	11	43	9	38	4	11	6	8
06:00	*	*	*	*	43	87	41	94	41	93	42	91	20	33	15	13
07:00	*	*	*	*	109	152	**119**	155	102	120	110	142	47	70	21	40
08:00	*	*	*	*	107	**176**	89	**167**	94	**192**	97	**178**	82	86	59	78
09:00	*	*	*	*	**110**	120	113	129	**148**	122	**124**	124	95	123	137	107
10:00	*	*	*	*	76	99	102	108	90	116	89	108	105	**150**	96	**185**
11:00	*	*	**98**	**106**	96	109	91	115	102	109	97	110	**134**	138	**165**	108
12:00 PM	*	*	110	120	126	112	114	105	117	122	117	115	144	129	**151**	**216**
01:00	*	*	116	117	134	139	135	87	131	124	129	117	134	120	106	120
02:00	*	*	127	127	128	149	125	149	140	119	130	136	109	137	107	119
03:00	*	*	146	131	149	131	153	156	171	144	155	140	140	112	114	107
04:00	*	*	148	150	182	**162**	160	157	184	150	168	**155**	148	115	128	113
05:00	*	*	160	**164**	**200**	145	**210**	145	**189**	**161**	**190**	154	**173**	124	96	102
06:00	*	*	155	97	176	136	207	**160**	180	136	180	132	124	**182**	111	108
07:00	*	*	**161**	116	142	141	127	136	117	118	137	128	95	101	80	77
08:00	*	*	105	110	114	111	93	102	97	87	102	102	76	78	65	65
09:00	*	*	74	58	74	89	54	55	74	73	69	69	67	68	36	46
10:00	*	*	41	49	51	30	43	39	61	52	49	42	52	39	42	34
11:00	*	*	32	16	22	20	30	15	39	33	31	21	40	32	28	23
Total	0	0	1473	1361	2087	2187	2057	2155	2120	2150	2062	2144	1849	1904	1643	1715
Day	0		2834		4274		4212		4270		4206		3753		3358	
AM Peak	-	-	11:00	11:00	09:00	08:00	07:00	08:00	09:00	08:00	09:00	08:00	11:00	10:00	11:00	10:00
Vol.	-	-	98	106	110	176	119	167	148	192	124	178	134	150	165	185
PM Peak	-	-	19:00	17:00	17:00	16:00	17:00	18:00	17:00	17:00	17:00	16:00	17:00	18:00	12:00	12:00
Vol.	-	-	161	164	200	162	210	160	189	161	190	155	173	182	151	216

Maser Consulting

400 Columbus Avenue, Suite 180E
Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

Project: EAGLE BAY
Location: STONY POINT, NY
MC Job No. 18005404A

Site Code: 18005404 999
E. MAIN STREET (EAST OF LEE AVENUE
AND WEST OF HUDSON AVENUE)
Latitude: 0' 0.0000 Undefined
Longitude: 0' 0.0000 Undefined

Start	9/10/2018		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
Time	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	15	8	13	5	15	11	8	5	16	11	13	8	*	*	*	*
01:00	8	5	8	3	7	3	9	3	10	2	8	3	*	*	*	*
02:00	4	5	4	4	6	2	5	2	2	3	4	3	*	*	*	*
03:00	2	9	4	6	2	8	2	6	6	3	3	6	*	*	*	*
04:00	12	16	9	17	7	22	10	23	8	23	9	20	*	*	*	*
05:00	6	36	5	41	10	36	22	44	8	40	10	39	*	*	*	*
06:00	28	63	33	56	45	90	50	90	41	82	39	76	*	*	*	*
07:00	80	103	95	101	98	147	**124**	166	103	153	100	134	*	*	*	*
08:00	74	**143**	96	**151**	89	**179**	88	**168**	102	**184**	90	**165**	*	*	*	*
09:00	76	104	84	139	**112**	128	103	132	101	115	95	124	*	*	*	*
10:00	81	101	81	114	90	111	97	97	113	97	92	104	*	*	*	*
11:00	**91**	112	**116**	138	77	108	122	118	**114**	100	**104**	115	*	*	*	*
12:00 PM	110	100	114	114	119	128	141	137	*	*	121	120	*	*	*	*
01:00	115	**120**	102	136	106	99	160	145	*	*	121	125	*	*	*	*
02:00	101	113	134	142	123	123	171	142	*	*	132	130	*	*	*	*
03:00	99	109	158	135	168	**167**	174	176	*	*	150	147	*	*	*	*
04:00	119	102	149	135	186	134	211	**207**	*	*	166	144	*	*	*	*
05:00	**140**	113	**174**	**156**	**188**	155	**231**	195	*	*	**183**	**155**	*	*	*	*
06:00	129	104	154	115	183	136	190	169	*	*	164	131	*	*	*	*
07:00	93	73	35	27	130	135	160	152	*	*	104	97	*	*	*	*
08:00	65	64	105	102	93	76	140	107	*	*	101	87	*	*	*	*
09:00	53	37	66	53	79	77	81	86	*	*	70	63	*	*	*	*
10:00	44	36	46	42	41	35	47	41	*	*	44	38	*	*	*	*
11:00	19	22	24	20	25	26	31	16	*	*	25	21	*	*	*	*
Total	1564	1698	1809	1952	1999	2136	2377	2427	624	813	1948	2055	0	0	0	0
Day	3262		3761		4135		4804		1437		4003		0		0	
AM Peak	11:00	08:00	11:00	08:00	09:00	08:00	07:00	08:00	11:00	08:00	11:00	08:00	-	-	-	-
Vol.	91	143	116	151	112	179	124	168	114	184	104	165	-	-	-	-
PM Peak	17:00	13:00	17:00	17:00	17:00	15:00	17:00	16:00	-	-	17:00	17:00	-	-	-	-
Vol.	140	120	174	156	188	167	231	207	-	-	183	155	-	-	-	-

Comb. Total	3262	6595	8409	9016	5707	8209	3753	3358

ADT ADT 3,988 AADT 3,988

Maser Consulting

400 Columbus Avenue, Suite 180E
Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

Project: EAGLE BAY
Location: STONY POINT, NY
MC Job No. 18005404A

Site Code: 18005404 777
E. MAIN STREET (EAST OF LEE AVENUE
AND WEST OF HUDSON AVENUE)
Latitude: 0' 0.0000 Undefined
Longitude: 0' 0.0000 Undefined

Start	9/24/2018		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
Time	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	*	*	*	*	*	*	*	*	20	6	20	6	17	23	30	29
01:00	*	*	*	*	*	*	*	*	9	6	9	6	16	12	15	12
02:00	*	*	*	*	*	*	*	*	4	3	4	3	10	2	11	6
03:00	*	*	*	*	*	*	*	*	3	4	3	4	6	4	6	6
04:00	*	*	*	*	*	*	*	*	4	31	4	31	3	8	9	6
05:00	*	*	*	*	*	*	*	*	12	37	12	37	2	15	5	9
06:00	*	*	*	*	*	*	*	*	37	79	37	79	21	31	14	18
07:00	*	*	*	*	*	*	*	*	101	128	101	128	48	76	29	56
08:00	*	*	*	*	*	*	*	*	97	176	97	176	92	90	66	63
09:00	*	*	*	*	*	*	*	*	**154**	112	**154**	112	109	139	155	117
10:00	*	*	*	*	*	*	*	*	112	120	112	120	128	146	92	**213**
11:00	*	*	*	*	*	*	*	*	89	**177**	89	**177**	**151**	**160**	**215**	155
12:00 PM	*	*	*	*	*	*	121	123	117	104	119	114	156	159	148	**217**
01:00	*	*	*	*	*	*	127	117	135	117	131	117	176	132	139	151
02:00	*	*	*	*	*	*	137	127	146	117	142	122	131	127	**152**	123
03:00	*	*	*	*	*	*	179	170	153	165	166	168	143	161	141	151
04:00	*	*	*	*	*	*	200	177	171	155	186	166	152	139	125	162
05:00	*	*	*	*	*	*	145	160	**188**	**201**	166	**180**	**201**	154	146	150
06:00	*	*	*	*	*	*	**209**	**200**	187	141	**198**	170	152	**189**	144	127
07:00	*	*	*	*	*	*	148	118	132	126	140	122	98	114	92	105
08:00	*	*	*	*	*	*	114	104	100	94	107	99	70	96	79	85
09:00	*	*	*	*	*	*	46	28	63	61	54	44	66	67	63	72
10:00	*	*	*	*	*	*	46	29	62	35	54	32	64	62	35	38
11:00	*	*	*	*	*	*	18	15	60	37	39	26	50	52	13	13
Total	0	0	0	0	0	0	1490	1368	2156	2232	2144	2239	2062	2158	1924	2084
Day	0		0		0		2858		4388		4383		4220		4008	
AM Peak	-	-	-	-	-	-	-	-	09:00	11:00	09:00	11:00	11:00	11:00	11:00	10:00
Vol.	-	-	-	-	-	-	-	-	154	177	154	177	151	160	215	213
PM Peak	-	-	-	-	-	-	18:00	18:00	17:00	17:00	18:00	17:00	17:00	18:00	14:00	12:00
Vol.	-	-	-	-	-	-	209	200	188	201	198	180	201	189	152	217

Project: EAGLE BAY
Location: STONY POINT, NY
MC Job No. 18005404A

Maser Consulting

400 Columbus Avenue, Suite 180E
Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

Site Code: 18005404 777
E. MAIN STREET (EAST OF LEE AVENUE
AND WEST OF HUDSON AVENUE)
Latitude: 0' 0.0000 Undefined
Longitude: 0' 0.0000 Undefined

Start	10/1/2018		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
Time	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	13	8	14	8	15	6	14	9	12	9	14	8	*	*	*	*
01:00	9	2	6	5	10	2	3	5	5	5	7	4	*	*	*	*
02:00	4	5	3	0	3	6	5	0	5	8	4	4	*	*	*	*
03:00	2	11	4	7	2	5	2	5	5	5	3	7	*	*	*	*
04:00	10	21	8	24	8	24	7	24	7	23	8	23	*	*	*	*
05:00	11	36	12	39	10	40	9	36	14	41	11	38	*	*	*	*
06:00	40	77	39	86	37	92	38	90	41	85	39	86	*	*	*	*
07:00	**107**	134	**114**	147	**114**	129	**119**	**161**	**106**	133	**112**	141	*	*	*	*
08:00	89	**171**	87	**165**	105	**171**	82	142	101	**188**	93	**167**	*	*	*	*
09:00	86	97	100	107	99	110	94	99	*	*	95	103	*	*	*	*
10:00	88	121	92	107	88	116	103	103	*	*	93	112	*	*	*	*
11:00	102	101	98	100	91	95	87	96	*	*	94	98	*	*	*	*
12:00 PM	107	104	111	122	114	115	145	113	*	*	119	114	*	*	*	*
01:00	118	112	120	114	121	118	110	134	*	*	117	120	*	*	*	*
02:00	138	141	127	121	129	147	127	119	*	*	130	132	*	*	*	*
03:00	117	136	163	133	166	143	156	**165**	*	*	150	144	*	*	*	*
04:00	176	**157**	**209**	**153**	147	140	168	162	*	*	175	153	*	*	*	*
05:00	**189**	153	164	153	**213**	**189**	177	154	*	*	186	**162**	*	*	*	*
06:00	185	141	174	147	197	145	**229**	159	*	*	**196**	148	*	*	*	*
07:00	132	92	108	81	161	133	137	123	*	*	134	107	*	*	*	*
08:00	71	66	100	93	109	113	89	113	*	*	92	96	*	*	*	*
09:00	59	42	52	38	74	50	58	59	*	*	61	47	*	*	*	*
10:00	54	32	32	35	41	33	49	28	*	*	44	32	*	*	*	*
11:00	21	9	16	9	32	21	32	22	*	*	25	15	*	*	*	*
Total	1928	1969	1953	1994	2086	2143	2040	2121	296	497	2002	2061	0	0	0	0
Day	3897		3947		4229		4161		793		4063		0		0	
AM Peak	07:00	08:00	07:00	08:00	07:00	08:00	07:00	07:00	07:00	08:00	07:00	08:00	-	-	-	-
Vol.	107	171	114	165	114	171	119	161	106	188	112	167	-	-	-	-
PM Peak	17:00	16:00	16:00	16:00	17:00	17:00	18:00	15:00	-	-	18:00	17:00	-	-	-	-
Vol.	189	157	209	153	213	189	229	165	-	-	196	162	-	-	-	-

Comb. Total	3897	3947	4229	7019	5181	8446	4220	4008

ADT ADT 4,150 AADT 4,150

Maser Consulting

400 Columbus Avenue, Suite 180E
Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

Project: EAGLE BAY
Location: STONY POINT, NY
MC Job No. 18005404A

Site Code: 18005404 999
E. MAIN STREET (EAST OF LEE AVENUE
AND WEST OF HUDSON AVENUE)
Latitude: 0' 0.0000 Undefined
Longitude: 0' 0.0000 Undefined

Start	10/1/2018		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
Time	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	*	*	*	*	*	*	*	*	*	*	*	*	40	24	30	19
01:00	*	*	*	*	*	*	*	*	*	*	*	*	22	16	26	26
02:00	*	*	*	*	*	*	*	*	*	*	*	*	14	9	13	7
03:00	*	*	*	*	*	*	*	*	*	*	*	*	4	5	7	5
04:00	*	*	*	*	*	*	*	*	*	*	*	*	4	12	6	8
05:00	*	*	*	*	*	*	*	*	*	*	*	*	4	11	6	10
06:00	*	*	*	*	*	*	*	*	*	*	*	*	12	20	10	13
07:00	*	*	*	*	*	*	*	*	*	*	*	*	36	78	18	33
08:00	*	*	*	*	*	*	*	*	*	*	*	*	82	90	63	66
09:00	*	*	*	*	*	*	*	*	*	*	*	*	105	113	145	88
10:00	*	*	*	*	*	*	*	*	99	98	99	98	**195**	**129**	101	164
11:00	*	*	*	*	*	*	*	*	**116**	**137**	**116**	**137**	116	127	**182**	**169**
12:00 PM	*	*	*	*	*	*	*	*	137	126	137	126	110	**233**	154	**199**
01:00	*	*	*	*	*	*	*	*	138	139	138	139	136	143	137	157
02:00	*	*	*	*	*	*	*	*	145	136	145	136	160	125	119	108
03:00	*	*	*	*	*	*	*	*	173	160	173	160	100	148	128	126
04:00	*	*	*	*	*	*	*	*	180	171	180	171	127	108	**161**	141
05:00	*	*	*	*	*	*	*	*	**197**	**197**	**197**	**197**	**162**	114	128	125
06:00	*	*	*	*	*	*	*	*	169	165	169	165	119	180	143	145
07:00	*	*	*	*	*	*	*	*	123	110	123	110	89	72	88	114
08:00	*	*	*	*	*	*	*	*	91	75	91	75	58	63	78	111
09:00	*	*	*	*	*	*	*	*	81	73	81	73	58	61	62	60
10:00	*	*	*	*	*	*	*	*	75	64	75	64	56	40	52	40
11:00	*	*	*	*	*	*	*	*	50	32	50	32	38	41	33	33
Total	0	0	0	0	0	0	0	0	1774	1683	1774	1683	1847	1962	1890	1967
Day	0		0		0		0		3457		3457		3809		3857	
AM Peak	-	-	-	-	-	-	-	-	11:00	11:00	11:00	11:00	10:00	10:00	11:00	11:00
Vol.	-	-	-	-	-	-	-	-	116	137	116	137	195	129	182	169
PM Peak	-	-	-	-	-	-	-	-	17:00	17:00	17:00	17:00	17:00	12:00	16:00	12:00
Vol.	-	-	-	-	-	-	-	-	197	197	197	197	162	233	161	199

Project: EAGLE BAY
Location: STONY POINT, NY
MC Job No. 18005404A

Maser Consulting

400 Columbus Avenue, Suite 180E
Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

Site Code: 18005404 999
E. MAIN STREET (EAST OF LEE AVENUE
AND WEST OF HUDSON AVENUE)
Latitude: 0' 0.0000 Undefined
Longitude: 0' 0.0000 Undefined

Start	10/8/2018		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
Time	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	25	13	16	15	*	*	*	*	*	*	20	14	*	*	*	*
01:00	8	5	8	5	*	*	*	*	*	*	8	5	*	*	*	*
02:00	5	4	6	5	*	*	*	*	*	*	6	4	*	*	*	*
03:00	5	8	0	5	*	*	*	*	*	*	2	6	*	*	*	*
04:00	9	17	8	18	*	*	*	*	*	*	8	18	*	*	*	*
05:00	10	28	15	43	*	*	*	*	*	*	12	36	*	*	*	*
06:00	29	48	29	74	*	*	*	*	*	*	29	61	*	*	*	*
07:00	82	86	**110**	**155**	*	*	*	*	*	*	96	120	*	*	*	*
08:00	58	117	83	147	*	*	*	*	*	*	70	**132**	*	*	*	*
09:00	118	106	89	106	*	*	*	*	*	*	104	106	*	*	*	*
10:00	**124**	122	87	92	*	*	*	*	*	*	**106**	107	*	*	*	*
11:00	80	**157**	95	95	*	*	*	*	*	*	88	126	*	*	*	*
12:00 PM	100	132	*	*	*	*	*	*	*	*	100	132	*	*	*	*
01:00	118	117	*	*	*	*	*	*	*	*	118	117	*	*	*	*
02:00	120	122	*	*	*	*	*	*	*	*	120	122	*	*	*	*
03:00	87	111	*	*	*	*	*	*	*	*	87	111	*	*	*	*
04:00	102	116	*	*	*	*	*	*	*	*	102	116	*	*	*	*
05:00	**146**	**133**	*	*	*	*	*	*	*	*	**146**	**133**	*	*	*	*
06:00	99	92	*	*	*	*	*	*	*	*	99	92	*	*	*	*
07:00	105	74	*	*	*	*	*	*	*	*	105	74	*	*	*	*
08:00	68	48	*	*	*	*	*	*	*	*	68	48	*	*	*	*
09:00	64	40	*	*	*	*	*	*	*	*	64	40	*	*	*	*
10:00	44	30	*	*	*	*	*	*	*	*	44	30	*	*	*	*
11:00	21	25	*	*	*	*	*	*	*	*	21	25	*	*	*	*
Total	1627	1751	546	760	0	0	0	0	0	0	1623	1775	0	0	0	0
Day	3378		1306		0		0		0		3398		0		0	
AM Peak	10:00	11:00	07:00	07:00	-	-	-	-	-	-	10:00	08:00	-	-	-	-
Vol.	124	157	110	155	-	-	-	-	-	-	106	132	-	-	-	-
PM Peak	17:00	17:00	-	-	-	-	-	-	-	-	17:00	17:00	-	-	-	-
Vol.	146	133	-	-	-	-	-	-	-	-	146	133	-	-	-	-

Comb. Total	3378	1306	0	0	3457	6855	3809	3857

ADT ADT 3,828 AADT 3,828

EAGLE BAY

APPENDIX F

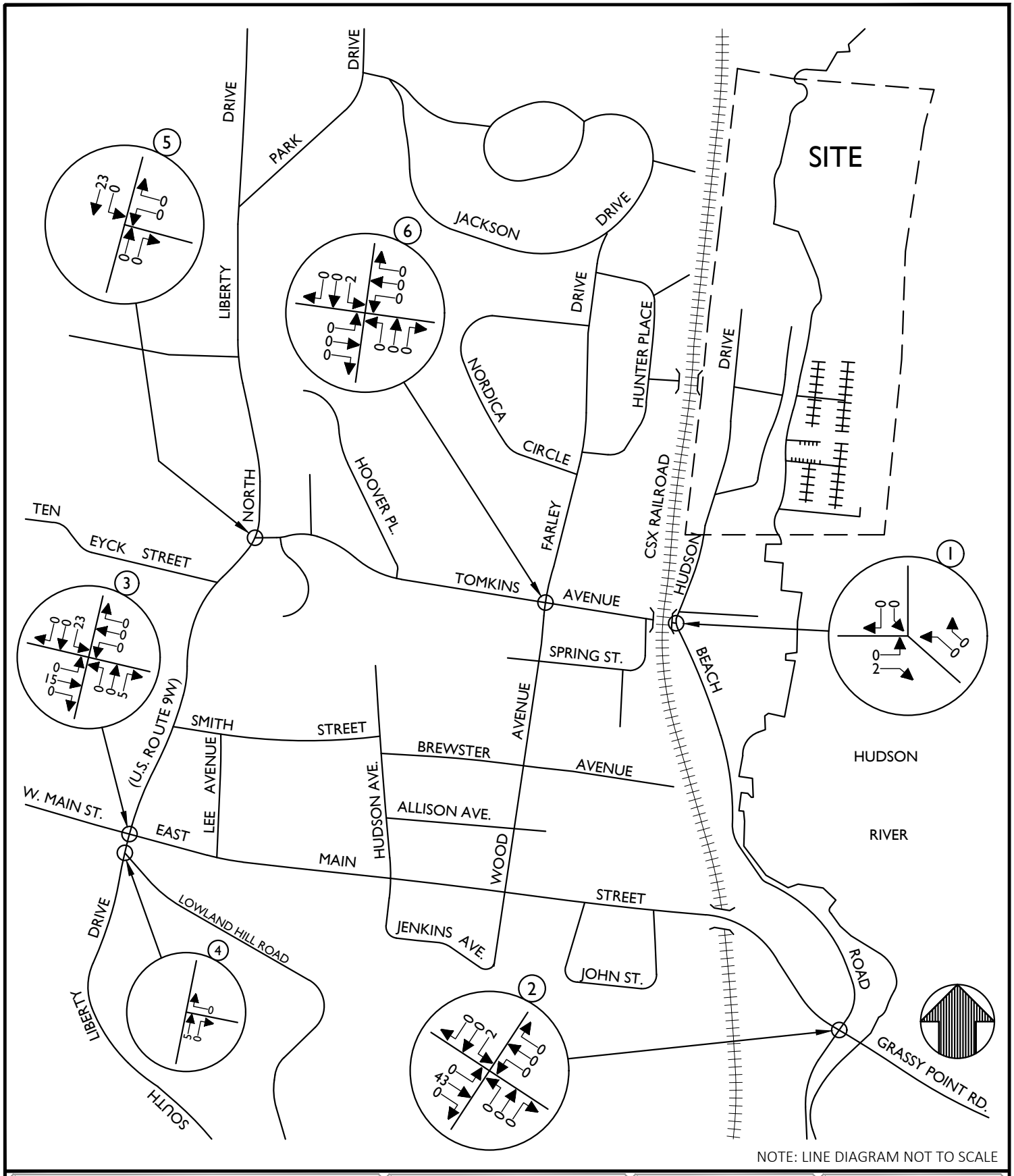
U.S. GYPSUM DATA

TABLE NO. 1-G

HOURLY TRIP GENERATION RATES & ANTICIPATED SITE GENERATED TRAFFIC VOLUMES

U.S. GYPSUM	ENTRY HTGR*	VOLUME	EXIT HTGR*	VOLUME	TOTAL HTGR*	VOLUME
MANUFACTURING (1) (300 EMPLOYEES)						
WEEKDAY PEAK AM HOUR	0.27	82	0.10	29	0.37	111
WEEKDAY PEAK PM HOUR	0.13	39	0.20	60	0.33	99
SUMMER FRIDAY PEAK PM HOUR	0.13	39	0.20	60	0.33	99
SUMMER SATURDAY PEAK HOUR	0.00	0	0.00	0	0.00	0

THE HOURLY TRIP GENERATION RATES (HTGR) ARE BASED ON DATA PUBLISHED BY THE INSTITUTE OF TRANSPORTATION ENGINEERS (ITE) - TRIP GENERATION HANDBOOK - 10TH EDITION
(1) ITE LAND USE 140 - MANUFACTURING



NOTE: LINE DIAGRAM NOT TO SCALE

MASER CONSULTING P.A.

Customer Loyalty *through* Client Satisfaction
www.maserconsulting.com

Engineers ✖ Planners ✖ Surveyors
Landscape Architects ✖ Environmental Scientists

State of N.Y. Cert. of Authorization: 0008671/0008821

Office Locations:
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- Hamilton, NJ
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- Montvale, NJ
- Mt. Arlington, NJ
- Mt. Laurel, NJ
- Albany, NY
- Newburgh, NY
- Weschester, NY
- Columbia, MD
- Lehigh Valley, PA
- Exton, PA
- Philadelphia, PA
- Pittsburgh, PA
- Tampa, FL
- Orlando, FL
- Miami, FL
- Sterling, VA
- Norfolk, VA
- Albuquerque, NM
- Charlotte, NC

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EAGLE BAY

HUDSON DRIVE
STONY POINT
ROCKLAND COUNTY
NEW YORK

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Suite 180E
Valhalla, NY 10595

Phone: 914.347.7500
Fax: 914.347.7266

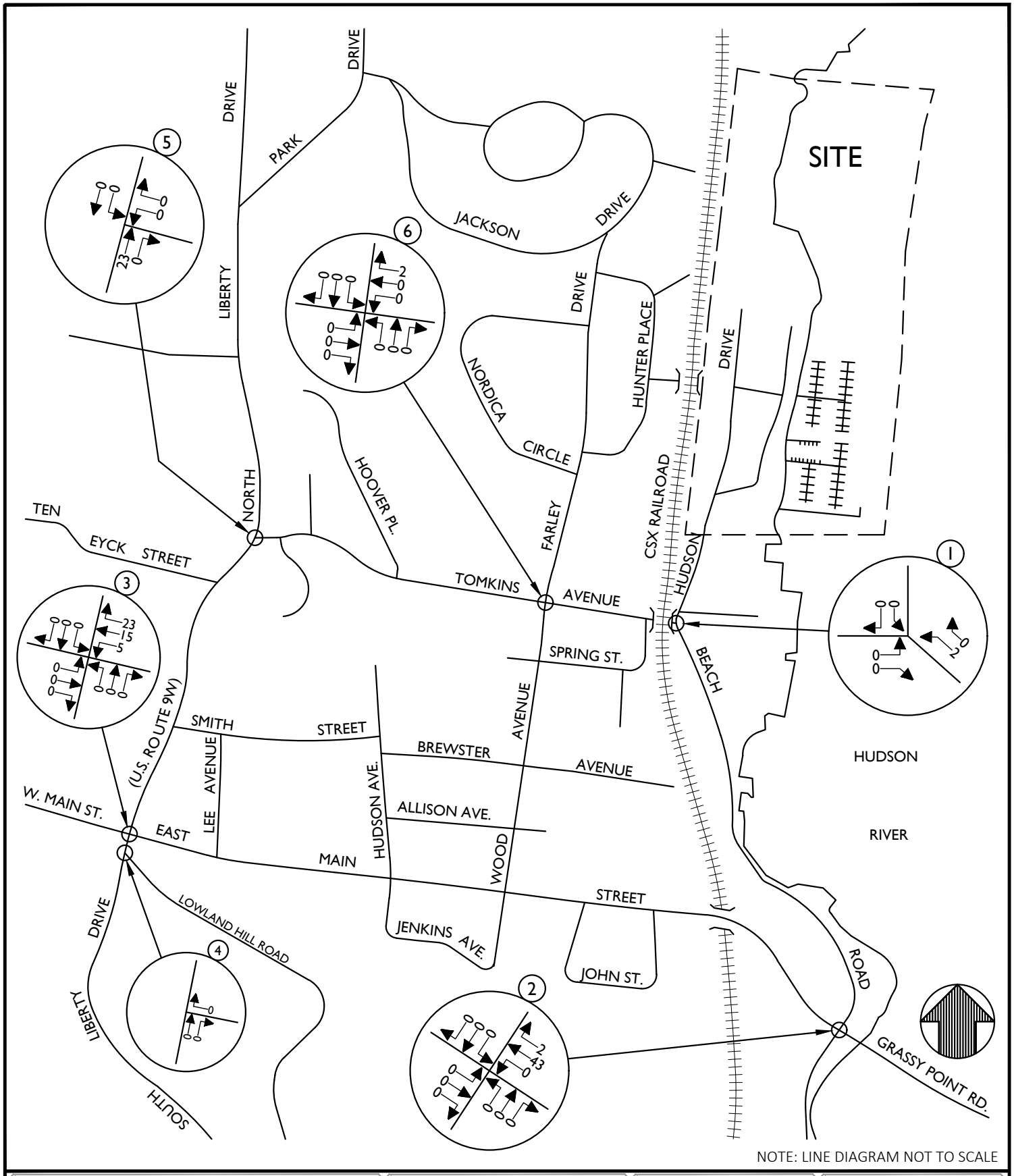
TRAFFIC IMPACT STUDY

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
N.T.S.	5/28/2019	N.S.T.	P.J.G.

PROJECT NUMBER: 18005404A
DRAWING NAME: 190528_NT_US GYP FIGURES_TYPICAL

SHEET TITLE:
ARRIVAL DISTRIBUTION
[U.S. GYPSUM]
(EXPRESSED AS A %)

SHEET NUMBER:
FIGURE NO. 1-G



NOTE: LINE DIAGRAM NOT TO SCALE

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- Weschester, NY
- Columbia, MD
- Lehigh Valley, PA
- Exton, PA
- Philadelphia, PA
- Pittsburgh, PA
- Tampa, FL
- Orlando, FL
- Miami, FL
- Sterling, VA
- Norfolk, VA
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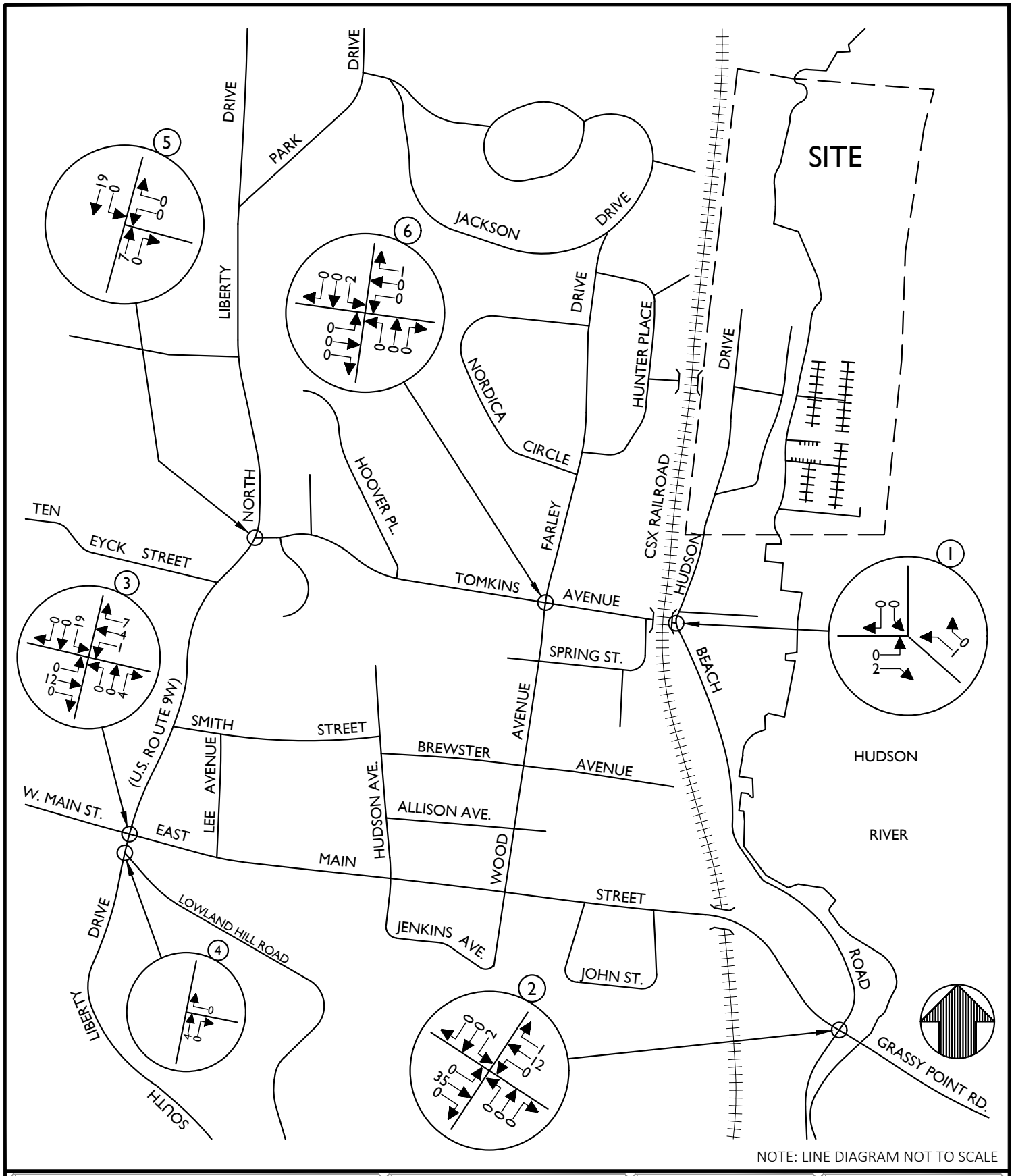
SHEET TITLE:
DEPARTURE DISTRIBUTION
[U.S. GYPSUM]
(EXPRESSED AS A %)

SHEET NUMBER:
FIGURE NO. 2-G



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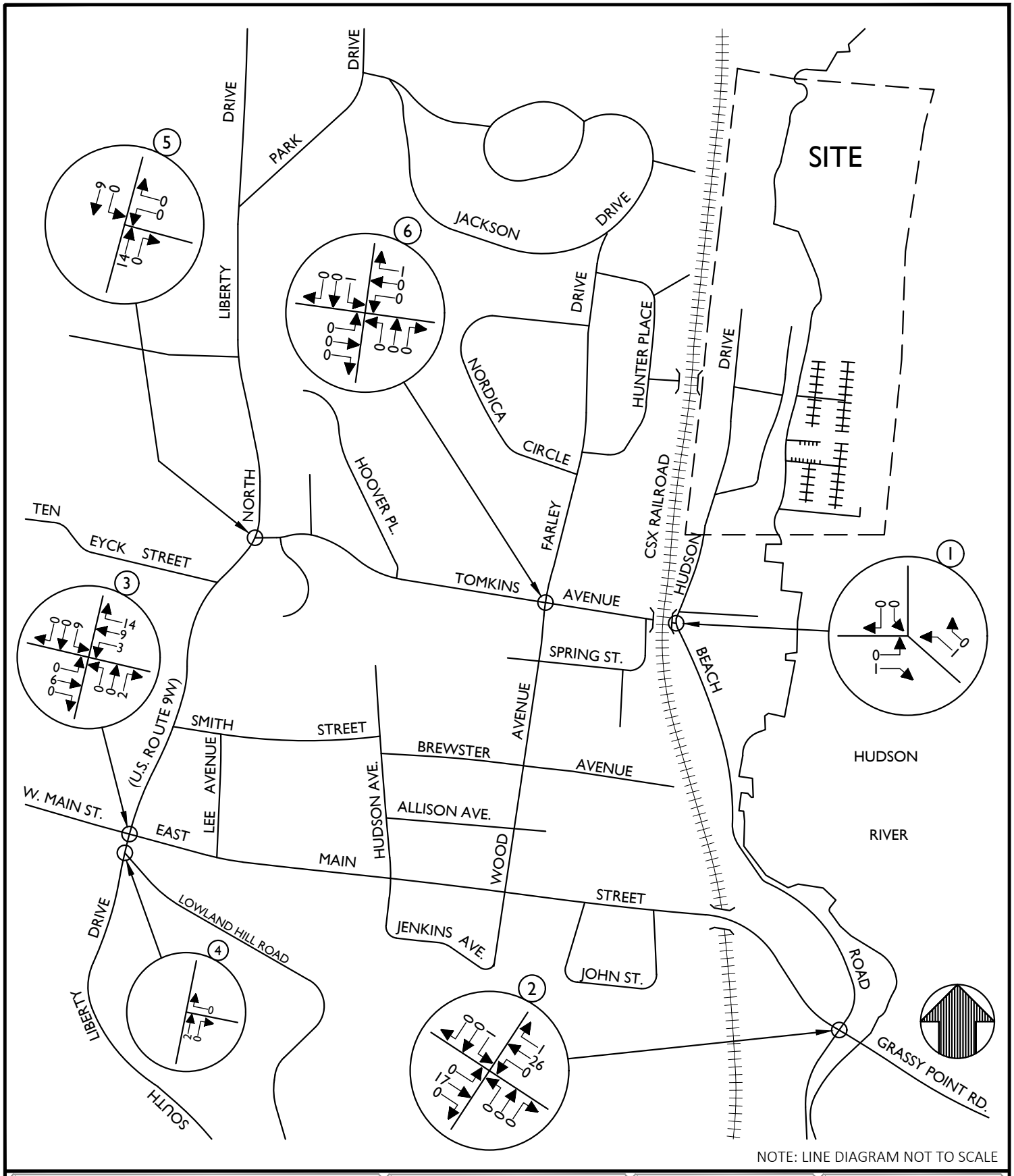
DRAWING NAME: 190528_NT_US GYP FIGURES_TYPICAL

SHEET TITLE:
SITE GENERATED TRAFFIC VOLUMES
[U.S. GYPSUM]
WEEKDAY PEAK AM HOUR

SHEET NUMBER:
FIGURE NO. 3-G



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[U.S. GYPSUM]
WEEKDAY PEAK PM HOUR

SHEET NUMBER:
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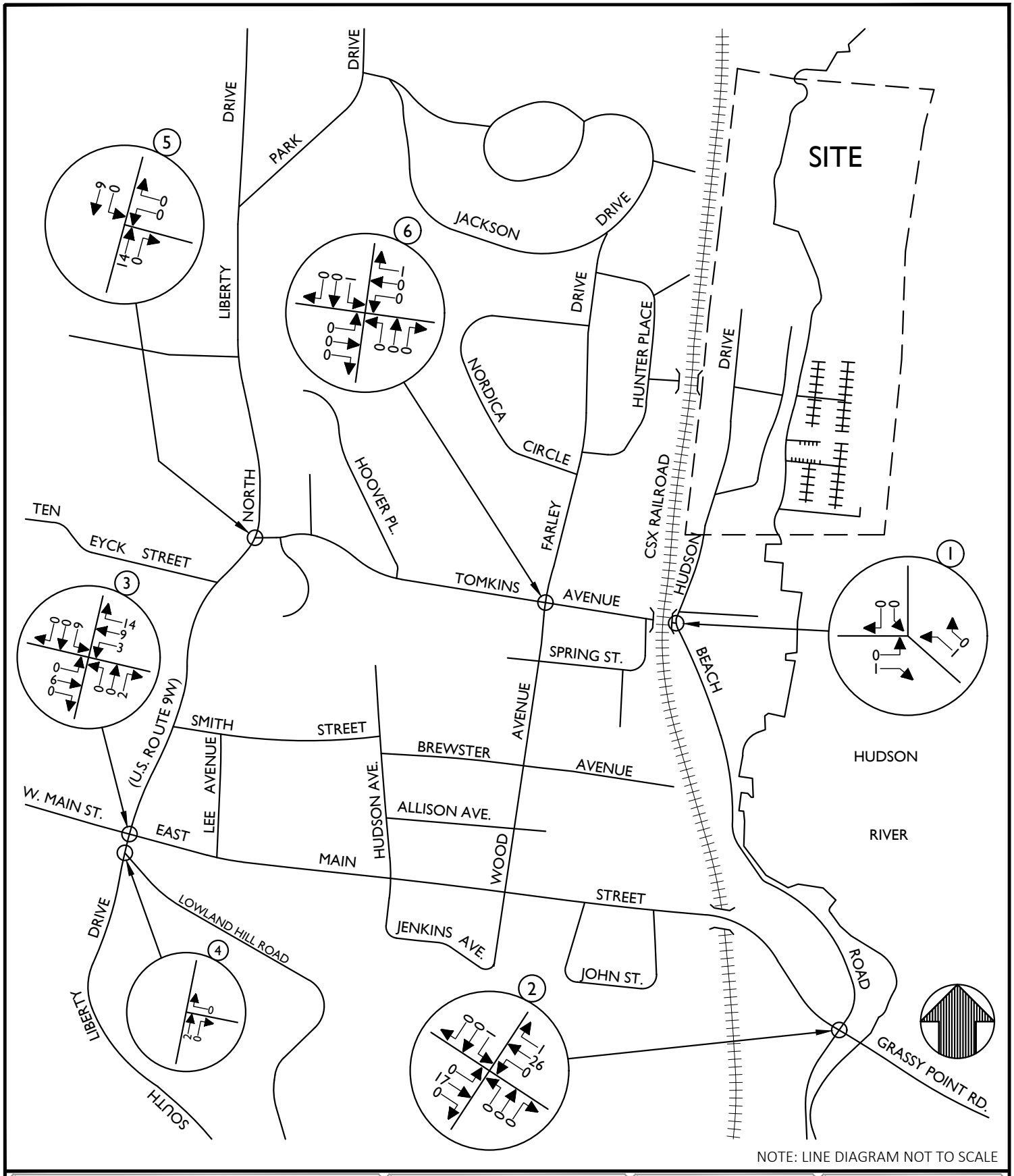

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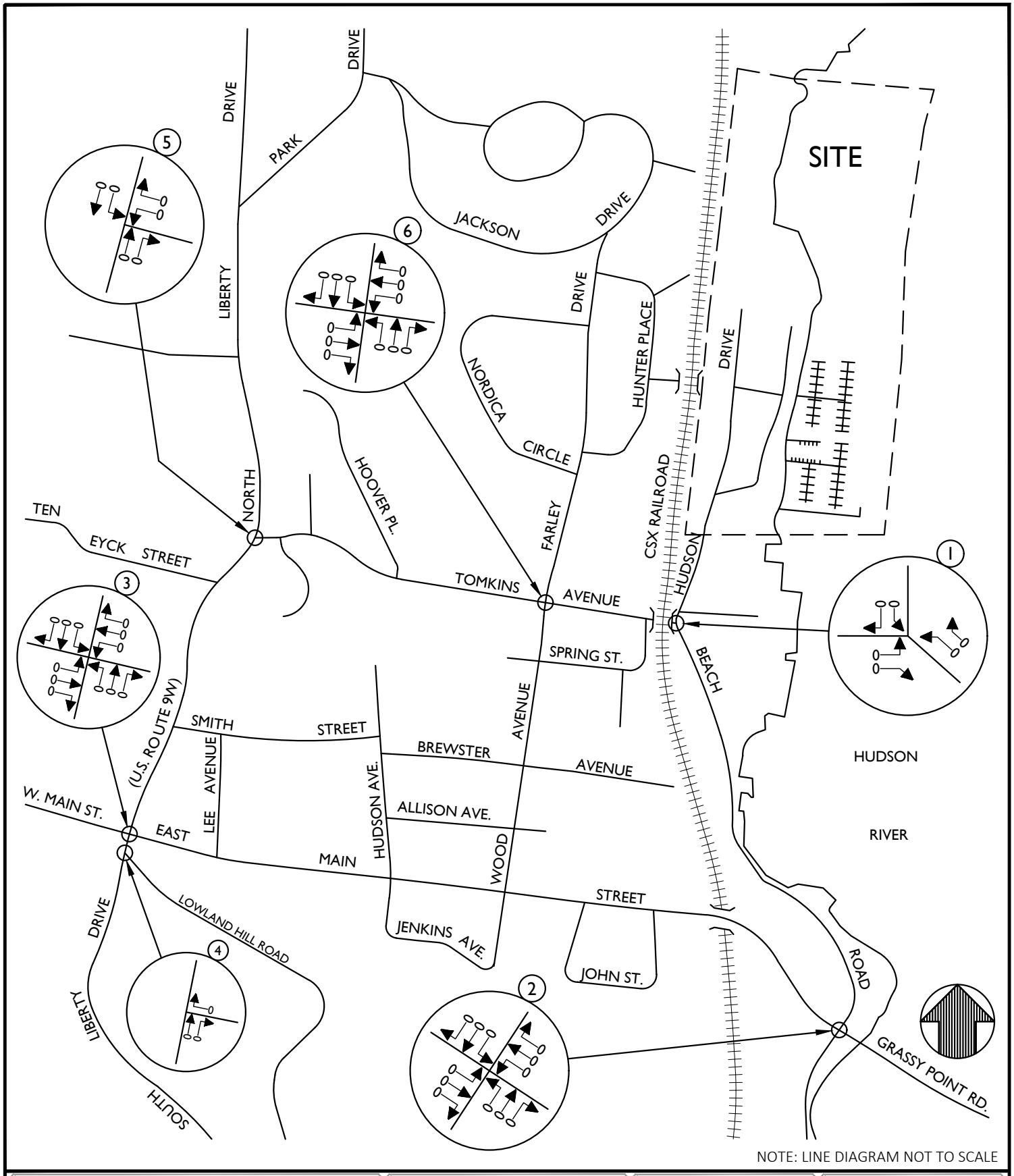
18005404A	190528_NT_US GYP FIGURES_SUMMER

SHEET TITLE:
SITE GENERATED TRAFFIC VOLUMES
[U.S. GYPSUM]
SUMMER FRIDAY PEAK PM HOUR

SHEET NUMBER:
FIGURE NO. 5-G



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DRAWING NAME: 190528_NT_US GYP FIGURES_SUMMER

SHEET TITLE:
SITE GENERATED TRAFFIC VOLUMES
[U.S. GYPSUM]
SUMMER SATURDAY PEAK HOUR

SHEET NUMBER:
FIGURE NO. 6-G

EAGLE BAY

APPENDIX G

U.S. CENSUS DATA/GRAVITY MODEL

Table G

Area Population Gravity Model

Municipality*	2010 U.S. Census Data		Expected Travel Pattern to Eagle Bay Site	Percentage of Total Area Population
Via U.S. 9W SB				
Town of Stony Point	3,011	0.90%	via U.S. 9W SB	18.36%
Fort Montgomery CDP	1,571	0.47%	via U.S. 9W SB	
Village of Highland Falls	3,900	1.17%	via U.S. 9W SB	
West Point CDP (part)	6,763	2.03%	via U.S. 9W SB	
Town of Highlands (remaining)	8,058	2.42%	via U.S. 9W SB	
Beaver Dam Lake CDP (part)	1,470	0.44%	via U.S. 9W SB	
Firthcliffe CDP (part)	145	0.04%	via U.S. 9W SB	
New Windsor CDP	8,922	2.68%	via U.S. 9W SB	
Vails Gate CDP (part)	3,369	1.01%	via U.S. 9W SB	
Town of New Windsor (remaining)	11,338	3.40%	via U.S. 9W SB	
Beaver Dam Lake CDP (part)	569	0.17%	via U.S. 9W SB	
Village of Cornwall-on-Hudson	3,018	0.91%	via U.S. 9W SB	
Firthcliffe CDP (part)	4,804	1.44%	via U.S. 9W SB	
Salisbury Mills CDP (part)	392	0.12%	via U.S. 9W SB	
Town of Cornwall (remaining)	3,863	1.16%	via U.S. 9W SB	
Via U.S. 9W NB				
New City CDP	33,559	10.07%	via C.R. 33 to U.S. 9W NB	49.11%
Town of Clarkstown (remaining)	2,409	0.72%	via C.R. 33 to U.S. 9W NB	
Village of Pomona (part)	1,352	0.41%	via Call Hollow Road, Willow Grove Road to U.S. 9W NB	
Village of Kaser	4,724	1.42%	via NYS 306, Willow Grove Road to U.S. 9W NB	
Monsey CDP	18,412	5.53%	via NYS 306, Willow Grove Road to U.S. 9W NB	
Village of Wesley Hills	5,628	1.69%	via NYS 306, Willow Grove Road to U.S. 9W NB	
Hillcrest CDP	7,558	2.27%	via NYS 45, Thiells Mt Ivy Road to U.S. 9W NB	
Village of New Square	6,944	2.08%	via NYS 45, Thiells Mt Ivy Road to U.S. 9W NB	
Village of New Hempstead	5,132	1.54%	via NYS 45, Thiells Mt Ivy Road to U.S. 9W NB	
Village of Spring Valley (part)	2,567	0.77%	via NYS 45, Thiells Mt Ivy Road to U.S. 9W NB	
Village of Spring Valley (part)	28,780	8.64%	via NYS 45, Thiells Mt Ivy Road to U.S. 9W NB	
West Nyack CDP	3,439	1.03%	via PIP NB, Thiells Mt Ivy Road to U.S. 9W NB	
Village of Montebello	4,526	1.36%	via U.S. 202, Willow Grove Road to U.S. 9W NB	
Village of Suffern	10,723	3.22%	via U.S. 202, Willow Grove Road to U.S. 9W NB	
Village of Hillburn	951	0.29%	via U.S. 202, Willow Grove Road to U.S. 9W NB	
Viola CDP	6,868	2.06%	via U.S. 202, Willow Grove Road to U.S. 9W NB	
Town of Ramapo (remaining)	5,414	1.62%	via U.S. 202, Willow Grove Road to U.S. 9W NB	
Village of Airmont	8,628	2.59%	via U.S. 202, Willow Grove Road to U.S. 9W NB	
Town of Stony Point	6,024	1.81%	via U.S. 9W NB	
Via C.R. 108 (W Main St) EB				
Town of Stony Point	6,024	1.81%	via C.R. 108 (W Main St) EB	22.75%
Bardonia CDP	4,108	1.23%	via PIP NB to C.R. 108 (W Main St) EB	
Nanuet CDP	17,882	5.37%	via PIP NB to C.R. 108 (W Main St) EB	
Blauvelt CDP	5,689	1.71%	via PIP NB to C.R. 108 (W Main St) EB	
Orangeburg CDP	4,568	1.37%	via PIP NB to C.R. 108 (W Main St) EB	
Pearl River CDP	15,876	4.76%	via PIP NB to C.R. 108 (W Main St) EB	
Sparkill CDP	1,565	0.47%	via PIP NB to C.R. 108 (W Main St) EB	
Tappan CDP	6,613	1.98%	via PIP NB to C.R. 108 (W Main St) EB	
Town of Orangetown (remaining)	2,521	0.76%	via PIP NB to C.R. 108 (W Main St) EB	
Village of Chestnut Ridge	7,916	2.38%	via PIP NB to C.R. 108 (W Main St) EB	
Village of Sloatsburg	3,039	0.91%	via Seven Lakes Drive, Gate Hill Road to C.R. 108 (W Main St) EB	
Via Beach Road				
Congers CDP	8,363	2.51%	via U.S. 9W to Beach Road	9.78%
Village of Upper Nyack	2,063	0.62%	via U.S. 9W to Beach Road	
Village of Nyack (part)	690	0.21%	via U.S. 9W to Beach Road	
Valley Cottage CDP	9,107	2.73%	via U.S. 9W to Beach Road	
Village of Grand View-on-Hudson	285	0.09%	via U.S. 9W to Beach Road	
Village of Nyack (part)	6,075	1.82%	via U.S. 9W to Beach Road	
Village of South Nyack	3,510	1.05%	via U.S. 9W to Beach Road	
Village of Piermont	2,510	0.75%	via U.S. 9W to Beach Road	

Based on 2010 U.S. Census Data

Summary

via U.S. 9W SB	18.36%
via U.S. 9W NB	49.11%
via C.R. 108 (W Main St) EB	22.75%
via Beach Road	9.78%

DP03

SELECTED ECONOMIC CHARACTERISTICS

2013-2017 American Community Survey 5-Year Estimates

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Technical Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities, and towns and estimates of housing units for states and counties.

Subject	Stony Point town, Rockland County, New York			
	Estimate	Margin of Error	Percent	Percent Margin of Error
EMPLOYMENT STATUS				
Population 16 years and over	12,830	+/-286	12,830	(X)
In labor force	8,544	+/-337	66.6%	+/-2.3
Civilian labor force	8,544	+/-337	66.6%	+/-2.3
Employed	7,995	+/-282	62.3%	+/-2.3
Unemployed	549	+/-211	4.3%	+/-1.6
Armed Forces	0	+/-18	0.0%	+/-0.2
Not in labor force	4,286	+/-327	33.4%	+/-2.3
Civilian labor force	8,544	+/-337	8,544	(X)
Unemployment Rate	(X)	(X)	6.4%	+/-2.3
Females 16 years and over	6,557	+/-287	6,557	(X)
In labor force	3,918	+/-266	59.8%	+/-3.1
Civilian labor force	3,918	+/-266	59.8%	+/-3.1
Employed	3,686	+/-273	56.2%	+/-3.3
Own children of the householder under 6 years	743	+/-214	743	(X)
All parents in family in labor force	662	+/-213	89.1%	+/-7.2
Own children of the householder 6 to 17 years	2,479	+/-224	2,479	(X)
All parents in family in labor force	1,912	+/-248	77.1%	+/-8.0
COMMUTING TO WORK				
Workers 16 years and over	7,854	+/-296	7,854	(X)
Car, truck, or van -- drove alone	6,360	+/-299	81.0%	+/-2.7
Car, truck, or van -- carpooled	744	+/-181	9.5%	+/-2.2
Public transportation (excluding taxicab)	312	+/-113	4.0%	+/-1.4
Walked	26	+/-25	0.3%	+/-0.3
Other means	154	+/-80	2.0%	+/-1.0
Worked at home	258	+/-89	3.3%	+/-1.2
Mean travel time to work (minutes)	32.0	+/-2.1	(X)	(X)

Subject	Stony Point town, Rockland County, New York			
	Estimate	Margin of Error	Percent	Percent Margin of Error
OCCUPATION				
Civilian employed population 16 years and over	7,995	+/-282	7,995	(X)
Management, business, science, and arts occupations	3,366	+/-322	42.1%	+/-3.8
Service occupations	1,352	+/-219	16.9%	+/-2.7
Sales and office occupations	1,895	+/-267	23.7%	+/-3.1
Natural resources, construction, and maintenance occupations	747	+/-162	9.3%	+/-2.0
Production, transportation, and material moving occupations	635	+/-120	7.9%	+/-1.5
INDUSTRY				
Civilian employed population 16 years and over	7,995	+/-282	7,995	(X)
Agriculture, forestry, fishing and hunting, and mining	28	+/-27	0.4%	+/-0.3
Construction	498	+/-143	6.2%	+/-1.8
Manufacturing	581	+/-116	7.3%	+/-1.4
Wholesale trade	164	+/-69	2.1%	+/-0.9
Retail trade	823	+/-169	10.3%	+/-2.0
Transportation and warehousing, and utilities	473	+/-152	5.9%	+/-1.9
Information	327	+/-114	4.1%	+/-1.5
Finance and insurance, and real estate and rental and leasing	546	+/-144	6.8%	+/-1.8
Professional, scientific, and management, and administrative and waste management services	916	+/-188	11.5%	+/-2.3
Educational services, and health care and social assistance	2,299	+/-317	28.8%	+/-3.8
Arts, entertainment, and recreation, and accommodation and food services	584	+/-127	7.3%	+/-1.6
Other services, except public administration	330	+/-106	4.1%	+/-1.3
Public administration	426	+/-106	5.3%	+/-1.3
CLASS OF WORKER				
Civilian employed population 16 years and over	7,995	+/-282	7,995	(X)
Private wage and salary workers	5,951	+/-334	74.4%	+/-2.7
Government workers	1,777	+/-213	22.2%	+/-2.7
Self-employed in own not incorporated business workers	257	+/-94	3.2%	+/-1.2
Unpaid family workers	10	+/-16	0.1%	+/-0.2
INCOME AND BENEFITS (IN 2017 INFLATION-ADJUSTED DOLLARS)				
Total households	5,209	+/-185	5,209	(X)
Less than $10,000	115	+/-55	2.2%	+/-1.1
$10,000 to $14,999	75	+/-40	1.4%	+/-0.8
$15,000 to $24,999	316	+/-113	6.1%	+/-2.2
$25,000 to $34,999	270	+/-77	5.2%	+/-1.5
$35,000 to $49,999	482	+/-121	9.3%	+/-2.2
$50,000 to $74,999	661	+/-129	12.7%	+/-2.4
$75,000 to $99,999	634	+/-119	12.2%	+/-2.3
$100,000 to $149,999	1,265	+/-194	24.3%	+/-3.6
$150,000 to $199,999	636	+/-151	12.2%	+/-2.8
$200,000 or more	755	+/-117	14.5%	+/-2.2
Median household income (dollars)	101,630	+/-5,673	(X)	(X)
Mean household income (dollars)	119,660	+/-6,540	(X)	(X)
With earnings	4,108	+/-177	78.9%	+/-2.7
Mean earnings (dollars)	115,554	+/-7,518	(X)	(X)
With Social Security	1,870	+/-183	35.9%	+/-3.1
Mean Social Security income (dollars)	23,498	+/-1,691	(X)	(X)
With retirement income	1,696	+/-197	32.6%	+/-3.5
Mean retirement income (dollars)	35,558	+/-3,581	(X)	(X)
With Supplemental Security Income	164	+/-69	3.1%	+/-1.3

Subject	Stony Point town, Rockland County, New York			
	Estimate	Margin of Error	Percent	Percent Margin of Error
Mean Supplemental Security Income (dollars)	10,861	+/-2,049	(X)	(X)
With cash public assistance income	77	+/-48	1.5%	+/-0.9
Mean cash public assistance income (dollars)	3,475	+/-3,793	(X)	(X)
With Food Stamp/SNAP benefits in the past 12 months	199	+/-69	3.8%	+/-1.3
Families	3,965	+/-185	3,965	(X)
Less than $10,000	15	+/-17	0.4%	+/-0.4
$10,000 to $14,999	19	+/-21	0.5%	+/-0.5
$15,000 to $24,999	163	+/-87	4.1%	+/-2.2
$25,000 to $34,999	119	+/-53	3.0%	+/-1.3
$35,000 to $49,999	239	+/-86	6.0%	+/-2.1
$50,000 to $74,999	436	+/-107	11.0%	+/-2.6
$75,000 to $99,999	576	+/-114	14.5%	+/-2.8
$100,000 to $149,999	1,119	+/-170	28.2%	+/-4.0
$150,000 to $199,999	593	+/-141	15.0%	+/-3.4
$200,000 or more	686	+/-115	17.3%	+/-2.9
Median family income (dollars)	118,071	+/-6,973	(X)	(X)
Mean family income (dollars)	137,148	+/-9,215	(X)	(X)
Per capita income (dollars)	41,431	+/-2,764	(X)	(X)
Nonfamily households	1,244	+/-203	1,244	(X)
Median nonfamily income (dollars)	42,614	+/-4,467	(X)	(X)
Mean nonfamily income (dollars)	57,180	+/-8,033	(X)	(X)
Median earnings for workers (dollars)	41,589	+/-2,031	(X)	(X)
Median earnings for male full-time, year-round workers (dollars)	62,552	+/-7,216	(X)	(X)
Median earnings for female full-time, year-round workers (dollars)	51,776	+/-5,903	(X)	(X)
HEALTH INSURANCE COVERAGE				
Civilian noninstitutionalized population	15,501	+/-30	15,501	(X)
With health insurance coverage	14,782	+/-262	95.4%	+/-1.7
With private health insurance	13,112	+/-424	84.6%	+/-2.7
With public coverage	3,982	+/-372	25.7%	+/-2.4
No health insurance coverage	719	+/-258	4.6%	+/-1.7
Civilian noninstitutionalized population under 19 years	3,603	+/-257	3,603	(X)
No health insurance coverage	110	+/-72	3.1%	+/-2.1
Civilian noninstitutionalized population 19 to 64 years	9,294	+/-299	9,294	(X)
In labor force:	7,802	+/-340	7,802	(X)
Employed:	7,332	+/-274	7,332	(X)
With health insurance coverage	6,841	+/-299	93.3%	+/-2.8
With private health insurance	6,567	+/-345	89.6%	+/-3.5
With public coverage	383	+/-134	5.2%	+/-1.9
No health insurance coverage	491	+/-210	6.7%	+/-2.8
Unemployed:	470	+/-208	470	(X)
With health insurance coverage	426	+/-204	90.6%	+/-8.0
With private health insurance	346	+/-197	73.6%	+/-14.7
With public coverage	80	+/-45	17.0%	+/-11.4
No health insurance coverage	44	+/-34	9.4%	+/-8.0
Not in labor force:	1,492	+/-206	1,492	(X)
With health insurance coverage	1,418	+/-206	95.0%	+/-4.6
With private health insurance	1,115	+/-200	74.7%	+/-8.3
With public coverage	445	+/-140	29.8%	+/-8.0
No health insurance coverage	74	+/-69	5.0%	+/-4.6

Subject	Stony Point town, Rockland County, New York			
	Estimate	Margin of Error	Percent	Percent Margin of Error
PERCENTAGE OF FAMILIES AND PEOPLE WHOSE INCOME IN THE PAST 12 MONTHS IS BELOW THE POVERTY LEVEL				
All families	(X)	(X)	3.3%	+/-1.9
With related children of the householder under 18 years	(X)	(X)	5.8%	+/-4.0
With related children of the householder under 5 years only	(X)	(X)	4.3%	+/-6.7
Married couple families	(X)	(X)	2.1%	+/-1.3
With related children of the householder under 18 years	(X)	(X)	2.8%	+/-2.6
With related children of the householder under 5 years only	(X)	(X)	6.1%	+/-9.5
Families with female householder, no husband present	(X)	(X)	11.6%	+/-11.4
With related children of the householder under 18 years	(X)	(X)	17.7%	+/-17.0
With related children of the householder under 5 years only	(X)	(X)	0.0%	+/-33.3
All people	(X)	(X)	6.9%	+/-2.8
Under 18 years	(X)	(X)	8.4%	+/-6.4
Related children of the householder under 18 years	(X)	(X)	7.9%	+/-6.4
Related children of the householder under 5 years	(X)	(X)	1.7%	+/-2.8
Related children of the householder 5 to 17 years	(X)	(X)	9.2%	+/-7.6
18 years and over	(X)	(X)	6.5%	+/-2.8
18 to 64 years	(X)	(X)	7.4%	+/-3.6
65 years and over	(X)	(X)	3.2%	+/-1.6
People in families	(X)	(X)	3.6%	+/-2.3
Unrelated individuals 15 years and over	(X)	(X)	28.7%	+/-12.7

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

Employment and unemployment estimates may vary from the official labor force data released by the Bureau of Labor Statistics because of differences in survey design and data collection. For guidance on differences in employment and unemployment estimates from different sources go to Labor Force Guidance.

Workers include members of the Armed Forces and civilians who were at work last week.

Industry codes are 4-digit codes and are based on the North American Industry Classification System 2012. The Industry categories adhere to the guidelines issued in Clarification Memorandum No. 2, "NAICS Alternate Aggregation Structure for Use By U.S. Statistical Agencies," issued by the Office of Management and Budget.

Occupation codes are 4-digit codes and are based on Standard Occupational Classification 2010.

Logical coverage edits applying a rules-based assignment of Medicaid, Medicare and military health coverage were added as of 2009 -- please see https://www.census.gov/library/working-papers/2010/demo/coverage_edits_final.html for more details. The 2008 data table in American FactFinder does not incorporate these edits. Therefore, the estimates that appear in these tables are not comparable to the estimates in the 2009 and later tables. Select geographies of 2008 data comparable to the 2009 and later tables are available at https://www.census.gov/data/tables/time-series/acs/1-year-re-run-health-insurance.html. The health insurance coverage category names were modified in 2010. See https://www.census.gov/topics/health/health-insurance/about/glossary.html#par_textimage_18 for a list of the insurance type definitions.

Beginning in 2017, selected variable categories were updated, including age-categories, income-to-poverty ratio (IPR) categories, and the age universe for certain employment and education variables. See user note entitled "Health Insurance Table Updates" for further details.

While the 2013-2017 American Community Survey (ACS) data generally reflect the February 2013 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic entities.

Estimates of urban and rural populations, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

Explanation of Symbols:

1. An '**' entry in the margin of error column indicates that either no sample observations or too few sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate.
2. An '-' entry in the estimate column indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest interval or upper interval of an open-ended distribution.
3. An '-' following a median estimate means the median falls in the lowest interval of an open-ended distribution.
4. An '+' following a median estimate means the median falls in the upper interval of an open-ended distribution.
5. An '***' entry in the margin of error column indicates that the median falls in the lowest interval or upper interval of an open-ended distribution. A statistical test is not appropriate.
6. An '*****' entry in the margin of error column indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate.
7. An 'N' entry in the estimate and margin of error columns indicates that data for this geographic area cannot be displayed because the number of sample cases is too small.
8. An '(X)' means that the estimate is not applicable or not available.

EAGLE BAY

APPENDIX H

TRAFFIC SIGNAL TIMING PLANS

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

PROJECT MANAGER
CHECK
DRAFTING
CHECK
DESIGN
JOB MANAGER
DESIGN SUPERVISOR

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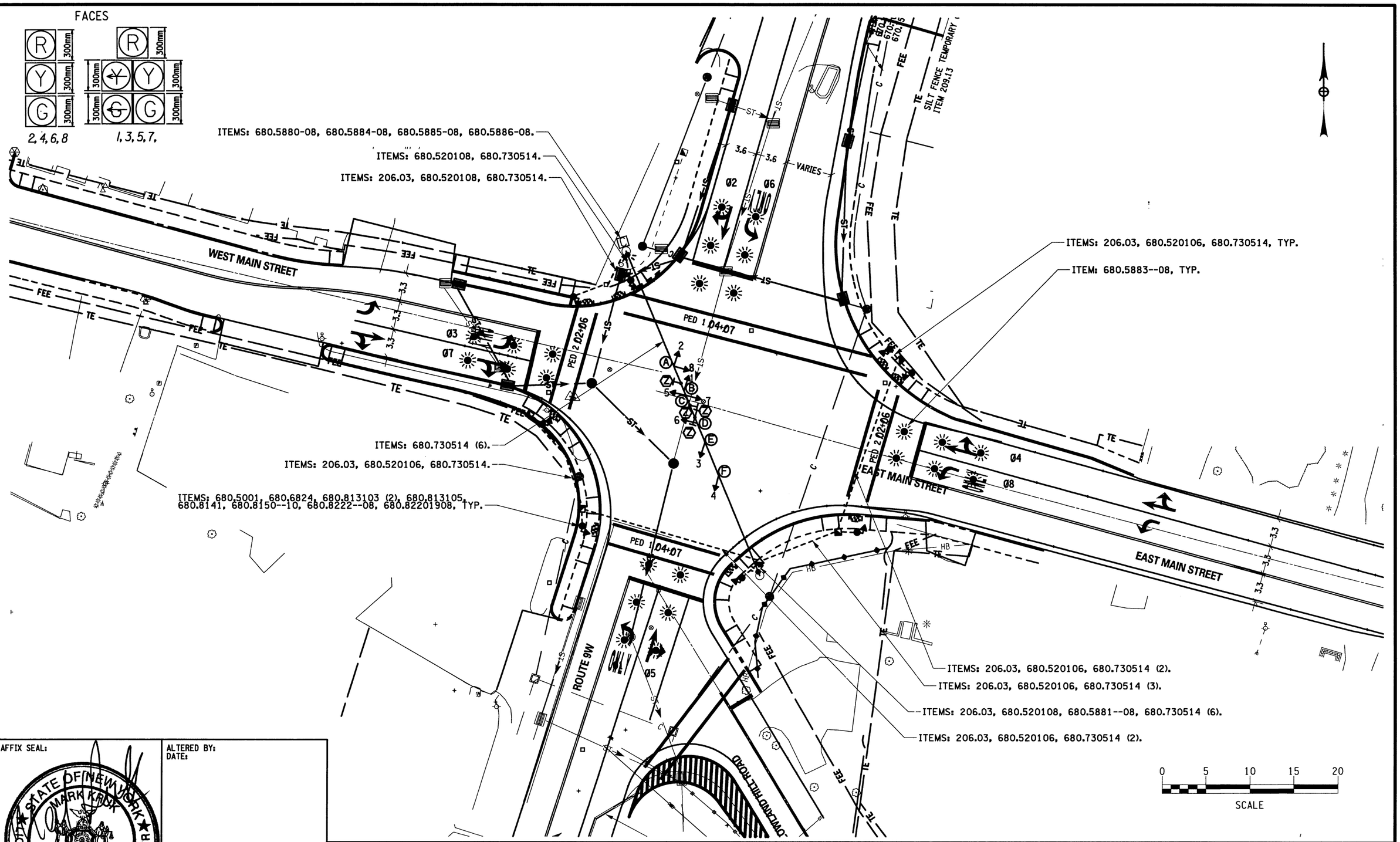
DATE/TIME = 28-OCT-2010 09:07
USER = ssmith1



AFFIX SEAL:

STATE OF NEW YORK
MARK KRUK
070974
LICENSED PROFESSIONAL ENGINEER

ALTERED BY:
DATE:

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

ROUTE 9W AT EAST MAIN STREET
TOWN OF STONY POINT
COUNTY: ROCKLAND
DOCUMENT NAME: 823913C2_CHP_TRF.DGN

PIN 8239.13
PS&E DATE 11/2010

BRIDGES
CULVERTS

ALL DIMENSIONS IN m UNLESS OTHERWISE NOTED

SIGNAL R-9
ROUTE 9W AT EAST MAIN STREET
10/24/10

CONTRACT NUMBER
D261615
DRAWING NO. TSP-1
SHEET NO. 50

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

PROJECT MANAGER ____ CHECK ____ DRAFTING ____ DESIGN ____ CHECK ____ JOB MANAGER ____ DESIGN SUPERVISOR ____

FILE NAME =
DATE/TIME = 28-OCT-2010 08:25
USER = ssmith1

ESTIMATE OF QUANTITES

ITEM NO.	DESCRIPTION	UNIT	QUANT.
206.03	CONDUIT EXCAVATION AND BACKFILL	M	100
619.1612	MAINTAIN TRAFFIC SIGNAL EQUIPMENT (REQUIREMENT B)	IM	6
680.5001	POLE EXCAVATION AND CONCRETE FOUNDATION	CM	7.2
680.510501	PULLBOX - RECT. 660 X 460 REINFORCED CONCRETE	EA	5
680.520106	CONDUIT - METAL - STEEL, ZINC COATED, 2 NPS	M	100
680.520108	CONDUIT - METAL - STEEL, ZINC COATED, 3 NPS	M	5
680.5880--08	WIRELESS VEHICLE DETECTION SYSTEM ACCESS PT	EA	1
680.5881--08	WIRELESS VEHICLE DETECTION SYSTEM REPEATER	EA	1
680.5883--08	WIRELESS VEHICLE DETECTION SYSYTEM INTERSECTION SENSOR	EA	24
680.5884--08	WIRELESS V D S MASTER CONTACT CLOSURE CARD	EA	1
680.5885--08	WIRELESS V D S EXTENSION CONTACT CLOSURE CARD	EA	2
680.5886--08	W V D S MASTER CONTACT CLOSURE ETHERNET ACCESS BOX	EA	1
680.6824	TRAFFIC SIGNAL POLE	EA	8
680.730514	SIGNAL CABLE - 5 CONDUCTOR, 14 AWG	M	635
680.731014	SIGNAL CABLE - 10 CONDUCTOR, 14 AWG	M	105
680.731514	SIGNAL CABLE - 15 CONDUCTOR, 14 AWG	M	35
680.7802--08	REMOVE EXISTING TRAFFIC SIGNAL CABLE + APPURTENANCES	EA	1
680.7803--08	REMOVE EXISTING TRAFFIC SIGNAL HEADS	EA	5
680.810101	TRAFFIC SIGNAL MODULE - RED BALL, LED 300MM	EA	8
680.810103	TRAFFIC SIGNAL MODULE - YELLOW BALL, LED 300MM	EA	8
680.810104	TRAFFIC SIGNAL MODULE - YELLOW ARROW, LED 300MM	EA	4
680.810105	TRAFFIC SIGNAL MODULE - GREEN BALL, LED 300MM	EA	8
680.810106	TRAFFIC SIGNAL MODULE - GREEN ARROW, LED 300MM	EA	4
680.810107	TRAFFIC SIGNAL SECTION, TYPE 1 300MM	EA	32
680.8111	TRAFFIC SIGNAL BRACKET ASSEMBLY - 1 WAY	EA	4
680.8112	TRAFFIC SIGNAL BRACKET ASSEMBLY - 2 WAY	EA	2
680.813103	PEDESTRIAN SIGNAL SECTION, TYPE 1 - 300MM	EA	16
680.813105	PEDESTRIAN SIGNAL MODULE BI-MODAL HAND/MAN, 300MM	EA	8
680.8141	PEDESTRIAN SIGNAL BRACKET MOUNT ASSEMBLY	EA	8
680.8150--10	PEDESTRIAN COUNT-DOWN TIMER MODULE	EA	8
680.8201	OVERHEAD SIGN ASSEMBLY - TYPE A	EA	4
680.82201908	BREAKAWAY TRANSFORMER BASE	EA	8
680.8222--08	PEDESTRIAN PUSHBUTTON + SIGN WITHOUT POST	EA	8

TABLE OF HEADS AND CABLE

HEAD	BRACKET	CABLE ITEM NO.	CABLE DESCRIPTION	FACE	ITEM NUMBERS
A	680.8112	680.731014	14/10C-A-X/X	2	ITEMS: 680.810101, 680.810103, 680.810105, 680.810107 (3)
				8	ITEMS: 680.810101, 680.810103, 680.810105, 680.810107 (3)
B	680.8111	680.731014	14/10C-B-X/X	1	ITEMS: 680.810101, 680.810103, 680.810104, 680.810105, 680.810106, 680.810107 (5)
C	680.8112	680.731514	14/15C-C-X/X	5	ITEMS: 680.810101, 680.810103, 680.810104, 680.810105, 680.810106, 680.810107 (5)
				7	ITEMS: 680.810101, 680.810103, 680.810104, 680.810105, 680.810106, 680.810107 (5)
D	680.8111	680.730514	14/05C-D-X/X	6	ITEMS: 680.810101, 680.810103, 680.810105, 680.810107 (3)
E	680.8111	680.731014	14/10C-E-X/X	3	ITEMS: 680.810101, 680.810103, 680.810104, 680.810105, 680.810106, 680.810107 (5)
F	680.8111	680.730514	14/05C-F-X/X	4	ITEMS: 680.810101, 680.810103, 680.810105, 680.810107 (3)

TABLE OF OPERATION

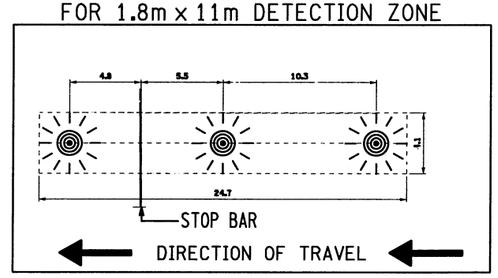
PHASE	FACE 1	2	3	4	5	6	7	8	PED 1	PED 2
Ø1	R	R	R/~~G~~	R	R	R	R	R	D.W.	D.W.
Ø1 + Ø5	R	R	G/~~G~~	G	R	R	R	R	D.W.	D.W.
Ø1 + Ø6	R/~~G~~	R	R/~~G~~	R	R	R	R	R	D.W.	D.W.
Ø2	G	G	R	R	R	R	R	R	D.W.	D.W.
Ø2+ Ø5	G	G	G	G	R	R	R	R	D.W.	D.W.
Ø2+ Ø6	G/~~G~~	G	R	R	R	R	R	R	D.W.	D.W.*
Ø3	R	R	R	R	R/~~G~~	R	R	R	D.W.	D.W.
Ø3+ Ø7	R	R	R	R	G/~~G~~	G	R	R	D.W.	D.W.
Ø3+ Ø8	R	R	R	R	R/~~G~~	R	R/~~G~~	R	D.W.	D.W.
Ø4	R	R	R	R	R	R	G	G	D.W.	D.W.
Ø4+ Ø7	R	R	R	R	G	G	G	G	D.W.*	D.W.
Ø4+ Ø8	R	R	R	R	G/~~G~~	G	R	R	D.W.	D.W.
Ø5	R	R	G	G	R	R	R	R	D.W.	D.W.
Ø6	R/~~G~~	R	R	R	R	R	R	R	D.W.	D.W.
Ø7	R	R	R	R	G	G	R	R	D.W.	D.W.
Ø8	R	R	R	R	R	R	R/~~G~~	R	D.W.	D.W.
FLASHING OPERATION	FL. Y	FL. Y	FL. Y	FL. Y	FL. R	FL. R	FL. R	FL. R	DARK	DARK

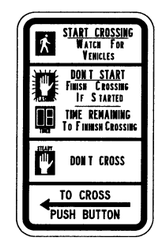
*THIS INDICATION SHALL BE **WALK** FOLLOWED BY A **FLASHING DON'T WALK** AND **STEADY DON'T WALK** WHEN AN ASSOCIATED PEDESTRIAN BUTTON IS ACTUATED.

TABLE OF SIGNS

LOC.	ITEM	MUTCD	TEXT
Z	680.8201 (4)	R3-5 L	ONLY

WIRELESS SENSOR DETAIL
FOR 1.8m x 11m DETECTION ZONE





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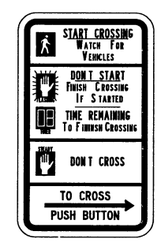
(4 EACH)



ITEM 680.8222--08
(4 EACH)

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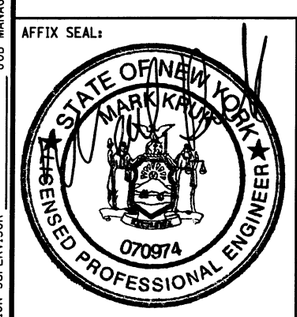


ALTERED BY:
DATE:

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

ROUTE 9W AT EAST MAIN STREET
TOWN OF STONY POINT
COUNTY: ROCKLAND
DOCUMENT NAME: 823913C2_CHP_TRF.DGN

PIN 8239.13
PS&E DATE 11/2010

BRIDGES | CULVERTS

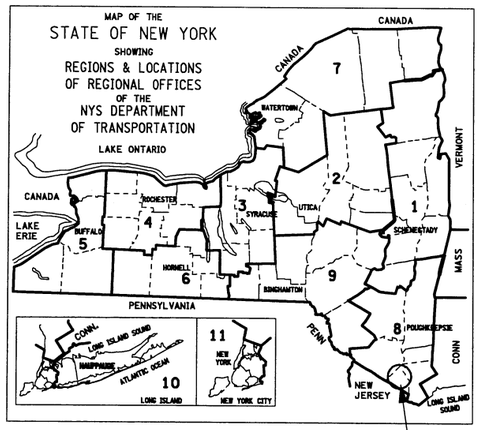
ALL DIMENSIONS IN m UNLESS OTHERWISE NOTED

SIGNAL R-9
ROUTE 9W AT EAST MAIN STREET
10/24/10

CONTRACT NUMBER D261615
DRAWING NO. TST-1
SHEET NO. 51

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

D261615



PROJECT LOCATION

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION

REPLACEMENT OF THE JAMES A. FARLEY MEMORIAL BRIDGE CARRYING ROUTE 9W OVER CEDAR POND BROOK STAGE II INTERSECTION AND APPROACH RECONSTRUCTION

F. A. PROJECT

ROCKLAND COUNTY CONTRACT D261615

D261615

THE LATEST REVISIONS OF THE STANDARD SHEETS MAINTAINED BY THE DEPARTMENT, WHICH ARE CURRENT ON THE DATE OF ADVERTISEMENT FOR BIDS, SHALL BE CONSIDERED TO BE IN EFFECT. ALL PAY ITEMS AND WORK CONTAINED IN THE CONTRACT AND ANY ADDITIONAL PAY ITEMS AND WORK ENCOUNTERED DURING THE COURSE OF THE CONTRACT SHALL BE SUBJECT TO THE APPLICABLE STANDARD SHEET(S) UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS.

ALL WORK CONTEMPLATED UNDER THIS CONTRACT IS TO BE COVERED BY AND IN CONFORMITY WITH THE STANDARD SPECIFICATIONS (METRIC UNITS) OF MAY 4, 2006, EXCEPT AS MODIFIED ON THESE PLANS AND IN THE ITEMIZED PROPOSAL.

CONTRACT PLANS HAVE BEEN DESIGNED IN ACCORDANCE WITH NYSDOT POLICIES AND GUIDELINES AND THE FINAL DESIGN REPORT APPROVED ON 11/10/2008

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

GreenLITES Certified

CONTRACTOR'S NAME _____

AWARD DATE _____

COMPLETION DATE _____

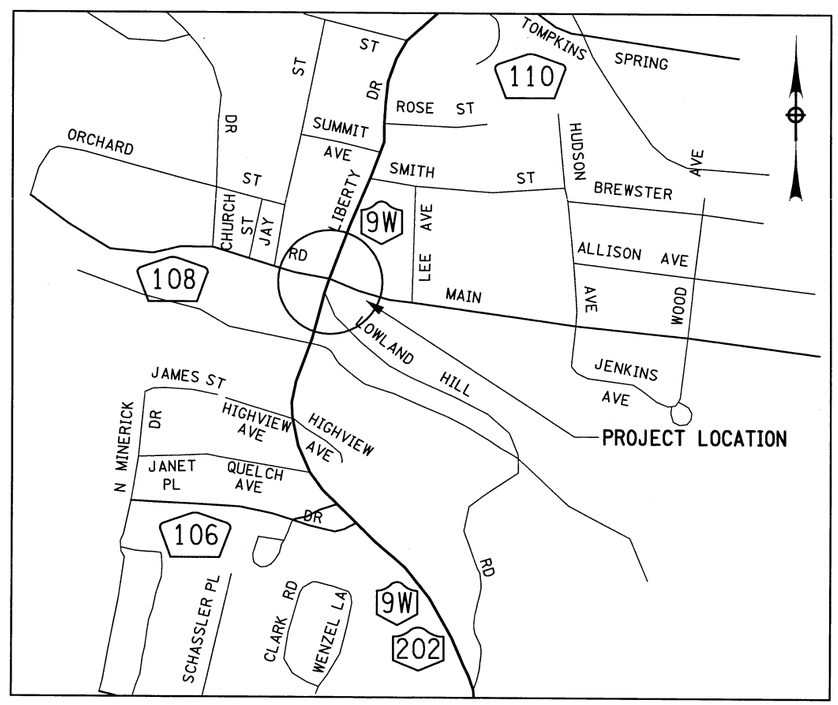
FINAL ACCEPTANCE DATE _____

REGIONAL DIRECTOR _____

ENGINEER IN CHARGE _____

FINAL COST TOTAL _____

FISCAL SHARE COST(S)



PROJECT LOCATION

THIS PROJECT IS LOCATED AT THE CROSSING OF ROUTE 9W OVER CEDAR POUND BROOK IN THE TOWN OF STONY POINT

RECOMMENDED BY 11-2-10
REGIONAL DESIGN ENGINEER DATE

RECOMMENDED BY 11/2/10
REGIONAL CONSTRUCTION ENGINEER DATE

RECOMMENDED BY 11/2/10
REGIONAL TRANSPORTATION MAINTENANCE ENGINEER DATE

RECOMMENDED BY 11/3/10
REGIONAL TRAFFIC ENGINEER DATE

APPROVED BY 11/3/10
REGIONAL DIRECTOR DATE

TOMPKINS COVE - WEST HAVERSTRAW			
S.H. 8049 & S.H. 8049A			
ROUTE 9W OVER CEDAR POND BROOK			
COUNTY: ROCKLAND			
FED. ROAD REG. NO.	STATE	SHEET NO.	
1	N.Y.	1	
FEDERAL AID PROJECT NO.			
CAPITAL PROJECT IDENTIFICATION NO. 823913			
INDEX ON SHEET NO. 2			

D261615

CHECKED BY ____ DRAFTED BY ____ ESTIMATED BY ____ CHECKED BY ____

DESIGN SUPERVISOR DAVE BENNETT JOB MANAGER OSCAR OLARTE DESIGNED BY OSCAR OLARTE

FILE NAME = 823913_cph_cvr.dgn
DATE/TIME = 29-OCT-2010 08:29
USER = yylu

D261615

ALIGNMENT

ABBR.	DESCRIPTION
AH	AHEAD
AZ	AZIMUTH
BK	BACK
℄	BASELINE
BRG	BEARING
℄	CENTERLINE
CS	CURVE TO SPIRAL
e	SUPERELEVATION RATE (CROSS SLOPE)
EQ	EQUALITY
EXT	EXTERNAL
HCL	HORIZONTAL CONTROL LINE
HSD	HEADLIGHT SIGHT DISTANCE
L	LENGTH OF CIRCULAR CURVE
LS	LENGTH OF SPIRAL
LVC	LENGTH OF VERTICAL CURVE
E	CENTER CORRECTION OF VERTICAL CURVE
ML	MAIN LINE
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
POL	POINT ON LINE
PSD	PASSING SIGHT DISTANCE
PT	POINT OF TANGENT
PVC	POINT OF VERTICAL CURVE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENT
R	RADIUS
SC	SPIRAL TO CURVE
SSD	STOPPING SIGHT DISTANCE
ST	SPIRAL TO TANGENT
STA	STATION
T	TANGENT LENGTH
TGL	THEORETICAL GRADE LINE
TS	TANGENT TO SPIRAL
VC	VERTICAL CURVE

TOPOGRAPHY (DRAINAGE)

ABBR.	DESCRIPTION
BB	BOTTOM OF BANK (STREAM)
BC	BOTTOM OF CURB
BO	BOTTOM OF OPENING
CAP	CORRUGATED ALUMINUM PIPE
CB	CATCH BASIN
CIP	CAST IRON PIPE
℄ STRM	CENTERLINE OF STREAM
CMP	CORRUGATED METAL PIPE
CP	CONCRETE PIPE
CSP	CORRUGATED STEEL PIPE
CULV	CULVERT
DIA	DIAMETER
DMH	DRAINAGE MANHOLE
DS	DRAINAGE STRUCTURE PIPE
D'XING	DITCH CROSSING
EHW	EXTREME HIGH WATER
EL	ELEVATION
ELEV	ELEVATION
ELW	EXTREME LOW WATER
ES	END SECTION
HW	HEADWALL
INV	INVERT
MH	MANHOLE
MHW	MEAN HIGH WATER
OHW	ORDINARY HIGH WATER
OLW	ORDINARY LOW WATER
RCP	REINFORCED CONCRETE PIPE
SICPP	SMOOTH INTERIOR CORRUGATED POLYETHYLENE PIPE
TB	TOP OF BANK (STREAM)
TC	TOP OF CURB
TG	TOP OF GRATE
VCP	VITRIFIED CLAY PIPE

TOPOGRAPHY (MISCELLANEOUS)

ABBR.	DESCRIPTION
ABUT	ABUTMENT
AOBE	AS ORDERED BY ENGINEER
ASPH	ASPHALT
BDY	BOUNDARY
BLDG	BUILDING
BM	BENCH MARK
CC	CENTER TO CENTER
CONC	CONCRETE
CONST	CONSTRUCTION
CR	COUNTY ROAD
D	DEED DISTANCE
DM	DIRECT MEASUREMENT
DWY	DRIVEWAY
EP	EDGE OF PAVEMENT
ES	EDGE OF SHOULDER
FEE	FEE ACQUISITION
FEE WO/A	FEE ACQUISITION WITHOUT ACCESS
FP	FENCE POST
FD	FOUNDATION
FL	FENCE LINE
GAR	GARAGE
GR	GRAVEL
HO	HOUSE
HWY	HIGHWAY
IP	IRON PIN OR IRON PIPE
MB	MAILBOX
MON	MONUMENT
N&W	NAIL AND WASHER
OG	ORIGINAL GROUND
O/H	OVERHEAD
P	PARCEL
PAV'T	PAVEMENT
PE	PERMANENT EASEMENT
PED POLE	PEDESTRIAN POLE
PL	PROPERTY LINE
POR	PORCH
RR	RAILROAD
RTE	ROUTE
ROW	RIGHT OF WAY
RW	RETAINING WALL
SH	STATE HIGHWAY
SHLDR	SHOULDER
SPK	SPIKE
ST	STREET
STK	STAKE
STY	STORY
SW	SIDEWALK
TE	TEMPORARY EASEMENT
TO	TEMPORARY OCCUPANCY
U/G	UNDERGROUND
WW	WING WALL

UTILITIES

ABBR.	DESCRIPTION
E	ELECTRIC
EMH	ELECTRIC MANHOLE
G	GAS
GP	GUY POLE
GSB	GAS SERVICE BOX (HOUSE LINE)
GV	GAS VALVE (MAIN LINE)
HYD	HYDRANT
LP	LIGHT POLE
LPG	LOW PRESSURE GAS
PP	POWER POLE
SA	SANITARY SEWER
SMH	SANITARY MANHOLE
ST	STORM SEWER
T	TELEPHONE
TCB	TRAFFIC CONTROL BOX
TELBOX	TELEPHONE BOX
TEL P	TELEPHONE POLE
TMH	TELEPHONE MANHOLE
CTV	CABLE TELEVISION
W	WATER
WSB	WATER SERVICE BOX (HOUSE LINE)
WV	WATER VALVE (MAIN LINE)

SUBSURFACE EXPLORATION

ABBR.	DESCRIPTION
REPLACE ABBREVIATION "AB" WITH:	
AH	HAND AUGER
CP	CONE PENETROMETER
DA	60 mm CASED DRILL HOLE
DM	DRILLING MUD
DN	100 mm CASED DRILL HOLE
FH	HOLLOW FLIGHT AUGER
PA	POWER AUGER
PH	PROBE
PT	PERCOLATION TEST HOLE
RP	25 mm SAMPLER (RETRACTABLE PLUG)
	TO BE DEFINED AT THE TIME OF EXPLORATION
SP	SEISMIC POINT
TP	TEST PIT
ABBREVIATION "C" IN CATEGORIES: DA, DM, DN, AND FH WITH:	
B	BRIDGE
C	CUT
D	DAM
F	FILL
K	CULVERT
W	WALL
X	TO BE USED IF ONE OF THE ABOVE CANNOT BE DEFINED AT THE TIME THE EXPLORATION IS MADE

STANDARD SYMBOL (PLANS)	ITEM PAYMENT UNIT: ESTIMATE OF QUANTITIES SHEET	EQUIVALENT NOMENCLATURE: (SPECS/PROPOSAL)
m	M	METER
m^2	SQM	SQUARE METER
m^3	CM	CUBIC METER
km	KM	KILOMETER
ha	HA	HECTARE
kg	KG	KILOGRAM
† OR Mg*	MT	METRIC TON
L	L	LITER
* THE METRIC TON IS EQUIVALENT TO ONE MEGAGRAM (Mg)		

INDEX

TOTAL NUMBER OF SHEETS 75

SHEET NUMBER	DESCRIPTION	DRAWING NUMBER
1	TITLE SHEET	COVER
2	INDEX AND ABBREVIATIONS	INDEX
3-7	TYPICAL SECTIONS	TYP-1 TO TYP-5
8-10	ESTIMATE OF QUANTITIES	EOQ-1 TO EOQ-3
11-12	LEGEND, LINE AND POINT SYMBOLOGY	LEG-1 TO LEG-2
13	GENERAL NOTES	GNN-1
14	PLAN AND TABLE OF HIGHWAY MAINTENANCE JURISDICTION	MJP-1
15	BASELINE TIES & BENCH MARK TABLE	BLT-1
16	CONTRACT CONTROL PLAN	CCP-1
17	ALIGNMENT TABLE	ALG-01
18	DRAINAGE TABLE	DRT-1
19-21	MISCELLANEOUS TABLES	MST-1 TO MST-3
22-25	MISCELLANEOUS DETAILS	MSD-1 TO MSD-4
26-27	EARTHWORK SUMMARY SHEETS	ESS-1 TO ESS-2
28	KEY PLAN	GNP-KY
29-34	GENERAL PLANS	GNP-1 TO GNP-6
35-37	PROFILE	PRO-1 TO PRO-3
38-43	DRAINAGE AND UTILITY PLANS	DRP-1 TO DRP-6
44-49	UTILITY CONFLICTS PLANS	UCP-1 TO UCP-6
50-51	TRAFFIC SIGNAL PLANS	TSP-1 TO TSP-2
52-57	PAVEMENT MARKING AND SIGNING PLANS	PMSP-1 TO PMSP-6
58	SIGNING DETAIL SHEET	SGD-01
59-61	SIGNING TEXT DATA SHEETS	SDS-01 TO SDS-03
62-69	LANDSCAPE DETAIL SHEETS	DTL-01 TO DTL-08
70	LANDSCAPE TABLES	TBL-01
71-75	LANDSCAPE AND LIGHTING PLANS	LND-01 TO LND-05

STANDARD SHEETS

M203-1	M608-8	M619-51	M646-13	M680-4
M203-3R1	M608-9	M619-60	M646-14	M680-5
M203-4R1	M608-10	M619-61	M646-15	M680-6
M204-1	M608-11	M625-1R1	M646-16	M680-7
M209-1R1	M608-12	M645-50R1	M655-8R3	M680-8R3
M209-5R1	M608-13	M645-51	M655-9R2	M680-9
M402-1R1	M609-2R1	M645-52R1	M655-10R2	M680-12
M603-1R1	M609-4R1	M645-53	M655-11R2	M680-13R2
M604-2	M611-1	M645-55R1	M663-2	M680-14R1
M604-5R2	M619-10	M645-56R1	M663-3	M680-15R1
M604-6R1	M619-11	M645-70R1	M663-4	M680-16
M604-7	M619-12	M645-72	M664-1	M680-17
M604-8R1	M619-13	M645-73	M670-1	M680.23
M605-1	M619-20	M645-76R1	M670-2	M685-1R1
M607-10	M619-21	M645-80R1	M680-1R1	M685-2R3
M608-6	M619-41	M646-11	M680-2R2	M685-3R2
M308-7R1	M619-50	M646-12	M680-3R3	M685-4R2
				M685-5R1

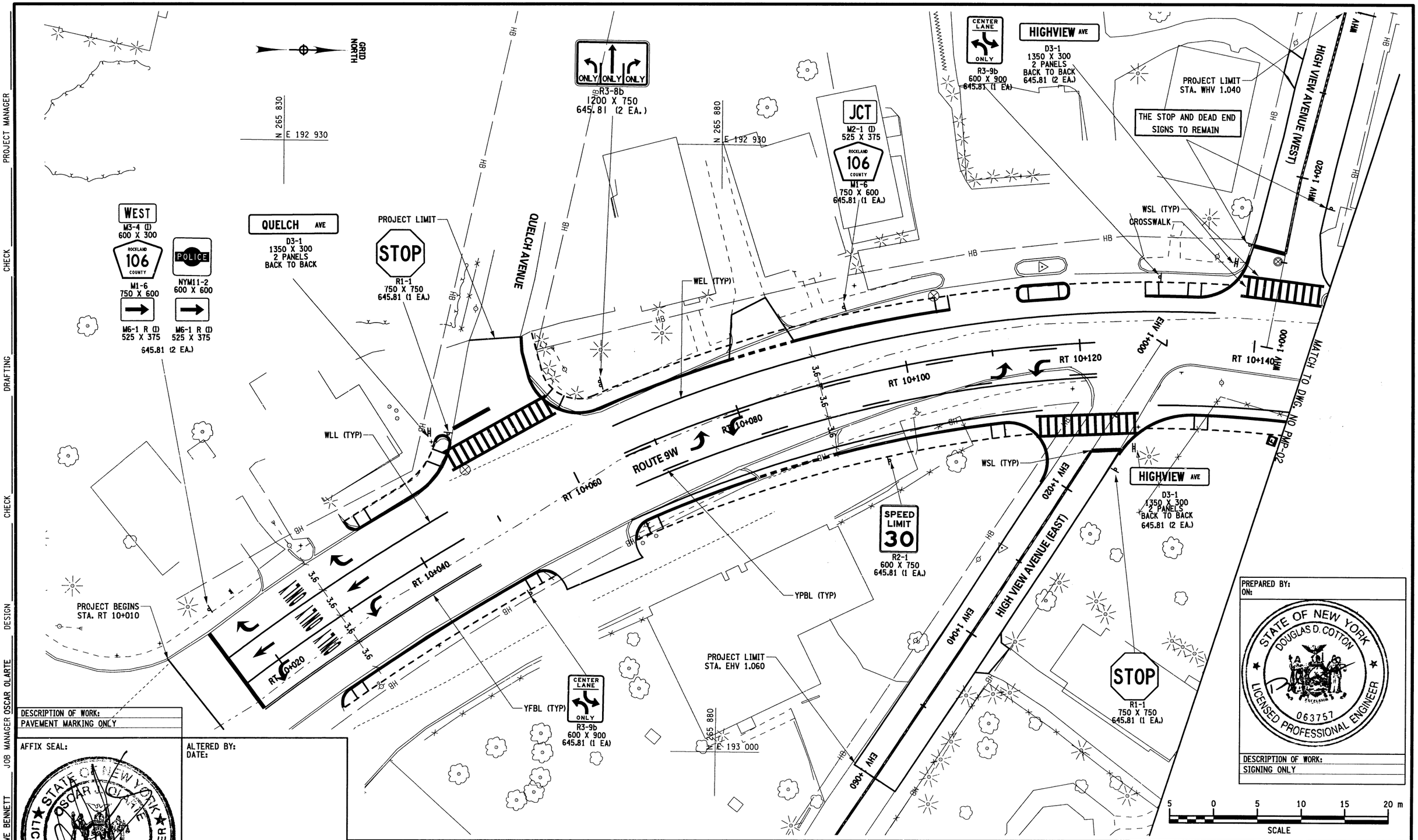
TOMPKINS COVE - WEST HAVERSTRAW S.H. 8049 & S.H. 8049A ROUTE 9W OVER CEDAR POND BROOK TOWN OF STONY POINT COUNTY: ROCKLAND	PIN 823913 PS&E DATE 11-2010	BRIDGES 1007140	CULVERTS	ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED INDEX AND ABBREVIATIONS	CONTRACT NUMBER D261615 DRAWING NO. IND-1 SHEET NO. 2
DOCUMENT NAME: 823913_cph_ind.dgn					NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION 08

FILE NAME = 823913_cph_ind.dgn
DATE/TIME = 03-NOV-2010 14:17
USER = yyliu

DESIGN SUPERVISOR DAVE BENNETT JOB MANAGER OSCAR OLARTE DESIGNED BY OSCAR OLARTE CHECKED BY
DRAFTED BY
ESTIMATED BY
CHECKED BY

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

PROJECT MANAGER ____ CHECK ____ DRAFTING ____ CHECK ____ DESIGN ____ JOB MANAGER OSCAR OLARTE DESIGN SUPERVISOR DAVE BENNETT



DESCRIPTION OF WORK:
PAVEMENT MARKING ONLY

AFFIX SEAL:

STATE OF NEW YORK
OSCAR J. OLARTE
065037
LICENSED PROFESSIONAL ENGINEER

ALTERED BY:
DATE:

PREPARED BY:
ON:

STATE OF NEW YORK
DOUGLAS D. COTTON
063757
LICENSED PROFESSIONAL ENGINEER

DESCRIPTION OF WORK:
SIGNING ONLY

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

S.H. 8049 AND S.H. 8049A - WEST HAVERSTRAW	PIN 823913	BRIDGES 1007140	CULVERTS	ALL DIMENSIONS IN m UNLESS OTHERWISE NOTED	CONTRACT NUMBER
ROUTE 9W OVER CEDAR POND BROOK	PS&E DATE 11-2010			PAVEMENT MARKING AND SIGNING PLANS	D261615
TOWN OF STONY POINT	UTILITY QUALITY LEVEL D				DRAWING NO. PMSP-01
					SHEET NO. 52
COUNTY: ROCKLAND					
DOCUMENT NAME: 823913_cph_pmp_01.dgn					NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION 08

FILE NAME = 823913_cph_pmp_01.dgn
DATE/TIME = 02-NOV-2010 09:44
USER = jiapoce

R-9
Signal #

STATE OF NEW YORK – DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING SAFETY DIVISION
TRAFFIC CONTROL SPECIFICATION

County of ROCKLAND

Study: OFFICE
Contract: D261615
PIN: 8239.13
File: 39.17-9W

INTERSECTION: RT 9W / RT 202 @ MAIN STREET

☐ CITY ☐ VILLAGE ☑ TOWN OF STONY POINT

Department Order filed 7-11-1988 as Section: 2039.17 Subdivision: (b)

Prior specification hereby superseded ☐ None ☑ Dated: February 9, 2010

Purpose: SIGNAL UPGRADE DURING THE FINAL STAGE OF SUCCESSIVE CONTRACTS: D261615 /INTERSECTION EXPANSION and D260648 / BRIDGE REPLACEMENT.

These specifications will be effective upon the ☐ Installation ☑ Modification / Reinstallation of the necessary traffic control device(s) required by and conforming to the Federal Manual on Uniform Traffic Control Devices.

This signal shall

A. Operate in accordance with the table of operations and / or change intervals as shown on the attached pages as a:

- ☐ Pretimed Signal
- ☐ Semi-traffic actuated
- ☑ Full-traffic actuated
- ☑ Pedestrian actuated
- ☐ Other

B.
- ☑ Display vehicular indications
- ☑ Display pedestrian indications
- ☑ Be equipped with vehicle detectors
- ☑ Be equipped with pedestrian buttons

as shown in the attached plans / drawings.

C. Be equipped with ☐ Pre-emption ☐ Interconnection and/or coordination which are described as follows:

Description:

cc:
- ☑ Region 8 Traffic Engineer
- ☑ Signal Shop
- ☐ Contract Maintainer
- ☐ Main Office

Date

Nicholas Chubah /s Acting R.T.E.
Signature Title

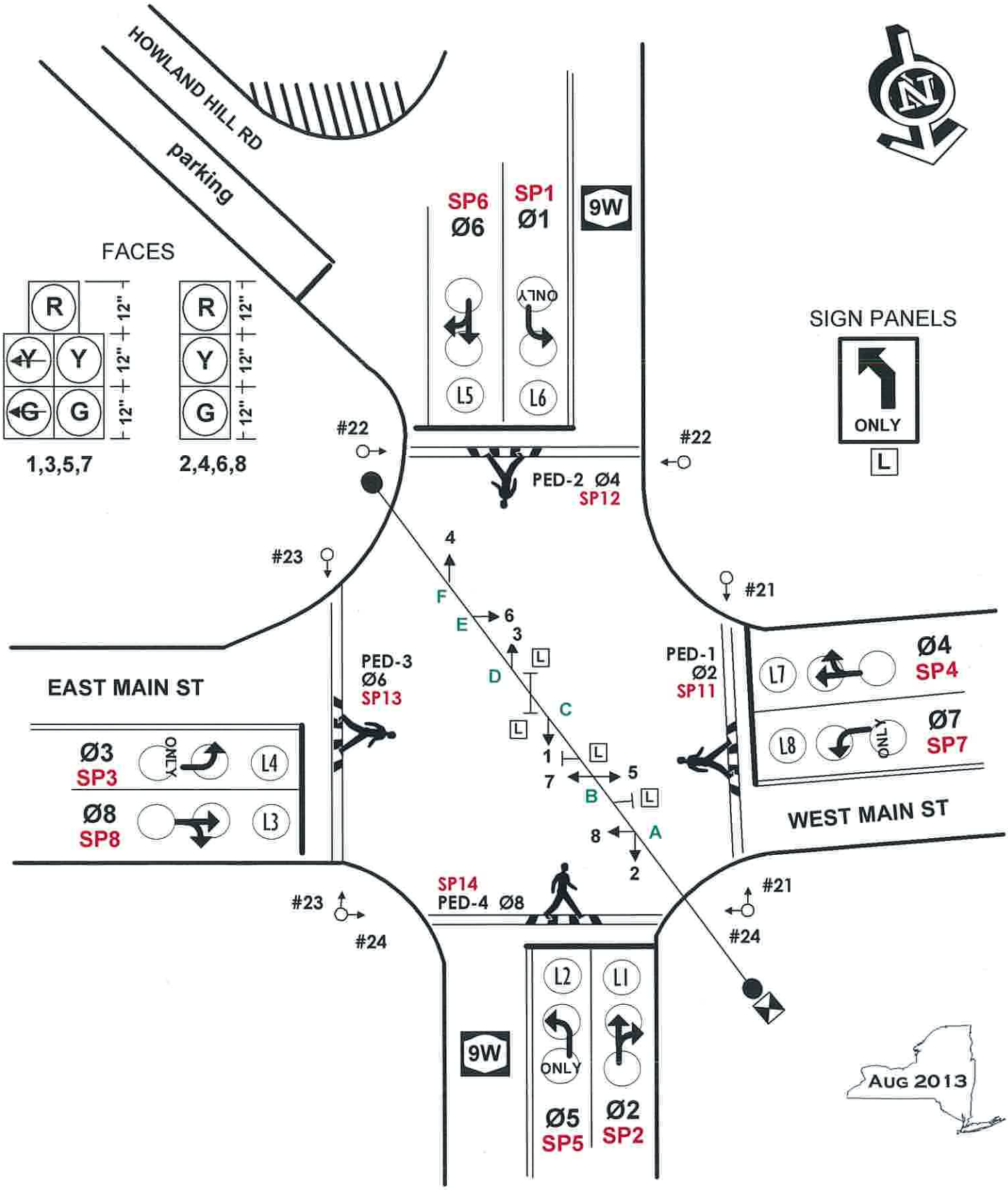
11-5-2013
Installation Date Reinstallation/Modification

STATE OF NEW YORK - DEPARTMENT OF TRANSPORTATION
TRAFFIC AND SAFETY DIVISION
TRAFFIC CONTROL SPECIFICATIONS (CONTINUED)

PROJECT:
CONTRACT: D261615
PIN: 8239.13
FILE: 39.17-9W

R-9
SIGNAL NO(S)

ROCKLAND
COUNTY



R-9

STD8

8-9-2013

Phase Times [1.1.1]

Times [1.1.1]	1	2	3	4	5	6	7	8
Min Green	3	10	3	5	3	10	3	5
Gap, Ext	2	2	2	2	2	2	2	2
Max 1	15	45	15	20	15	45	15	20
Max 2								
Yel Clearance	5	5	5	5	5	5	5	5
Red Clearance	1	1	1	1	1	1	1	1
Walk		7		7		7		7
Ped Clearance		12		13		14		27
Red Revert								
Add Initial								
Max Initial								
Time B4 Reduct								
Cars B4 Reduct								
Time To Reduce								
Reduce By								
Min Gap								
DyMaxLim								
Max Step								

Options [1.1.2]	1	2	3	4	5	6	7	8
Enable	1	1	1	1	1	1	1	1
Min Recall		1				1		
Max Recall								
Ped Recall								
Soft Recall								
Lock Calls								
Auto Flash Entry								
Auto Flash Exit								
Dual Entry		1		1		1		1
Enable Simul Gap	1	1	1	1	1	1	1	1
Gaurantee Passag								
Rest In Walk								
Conditon Service								
Non-Actuated 1								
Non-Actuated 2								
Add Init Calc								

Options+ [1.1.3]	1	2	3	4	5	6	7	8
Reservice								
PedClr Thru Yel								
Skip Red No Call								
Red Rest								
Max II								
Conflicting Phase								
Red Rest On Gap								
Omit Yellow								
Ped Delay								
Grn/Ped Delay								

Coordination Patterns [2.4] and Coordination Split Tables [2.7.1]

Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq
1	0	0	1	1	13	0	0	13	1	25	0	0		1	37	0	0		1
2	0	0	2	1	14	0	0	14	1	26	0	0		1	38	0	0		1
3	0	0	3	1	15	0	0	15	1	27	0	0		1	39	0	0		1
4	0	0	4	1	16	0	0	16	1	28	0	0		1	40	0	0		1
5	0	0	5	1	17	0	0	17	1	29	0	0		1	41	0	0		1
6	0	0	6	1	18	0	0	18	1	30	0	0		1	42	0	0		1
7	0	0	7	1	19	0	0	19	1	31	0	0		1	43	0	0		1
8	0	0	8	1	20	0	0	20	1	32	0	0		1	44	0	0		1
9	0	0	9	1	21	0	0	21	1	33	0	0		1	45	0	0		1
10	0	0	10	1	22	0	0	22	1	34	0	0		1	46	0	0		1
11	0	0	11	1	23	0	0	23	1	35	0	0		1	47	0	0		1
12	0	0	12	1	24	0	0	24	1	36	0	0		1	48	0	0		1

Split		1	2	3	4	5	6	7	8	Split		1	2	3	4	5	6	7	8
1	Coord	0	0	0	0	0	0	0	0	13	Coord	0	0	0	0	0	0	0	0
2	Coord	0	0	0	0	0	0	0	0	14	Coord	0	0	0	0	0	0	0	0
3	Coord	0	0	0	0	0	0	0	0	15	Coord	0	0	0	0	0	0	0	0
4	Coord	0	0	0	0	0	0	0	0	16	Coord	0	0	0	0	0	0	0	0
5	Coord	0	0	0	0	0	0	0	0	17	Coord	0	0	0	0	0	0	0	0
6	Coord	0	0	0	0	0	0	0	0	18	Coord	0	0	0	0	0	0	0	0
7	Coord	0	0	0	0	0	0	0	0	19	Coord	0	0	0	0	0	0	0	0
8	Coord	0	0	0	0	0	0	0	0	20	Coord	0	0	0	0	0	0	0	0
9	Coord	0	0	0	0	0	0	0	0	21	Coord	0	0	0	0	0	0	0	0
10	Coord	0	0	0	0	0	0	0	0	22	Coord	0	0	0	0	0	0	0	0
11	Coord	0	0	0	0	0	0	0	0	23	Coord	0	0	0	0	0	0	0	0
12	Coord	0	0	0	0	0	0	0	0	24	Coord	0	0	0	0	0	0	0	0

Page#	
1	8 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
1A&1B	16 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
2	Overlaps; Channel Settings; Coord Alt Table+ (values not associated with time-of-day)
3	Detection; Sample Time and Unit Parameters related to detection
4	Preemption and Alternate Phase Time and Phase Options
5	Annual Schedule
6	Day Plans; Action Tables; Coord Alt Table+ (values varied by time-of-day)
7	Communications; Secutiry; I/O Setup
8	Misc - Events/Alarms; Call/Inhibit/Redirect; P/OLAP Auto Flash; CIC; Misc Unit Param

Ring/Startup [1.1.4]

Phs	Ring	Start	Enable
1	1	RED	1
2	1	GREEN	1
3	1	RED	1
4	1	RED	1
5	2	RED	1
6	2	GREEN	1
7	2	RED	1
8	2	RED	1

Coord Modes [2.1]

Test OpMode	0
Correction	SHRT/LNG
Maximum	MAX 1
Force-Off	FLOAT
Closed Loop	ON
Stop-in-Walk	OFF
Auto Reset	ON
Expand Splt	OFF
Ped Recycle	NO_RECYCLE
Before	TIMED
After	TIMED

Auto Flash [1.4.1]

Auto Flash	PH OVER
Flash Yel	4.5
Flash Red	2

Unit Params [1.2.1]

Phase Mode	STD8
IO Mode	USER
Loc Flsh Start	ON
Start Flash(s)	0
Start AllRed(s)	0
Yellow < 3"	OFF
Display Time	20
Red Revert	0
MCE Timeout	0
Feature Profile	0
Free Ring Seq	1
Auxswitch	STOPTM
SDLC Retry	0
TS2 Det Faults	ON
Auto Ped Clear	OFF
SDLC Retry	0

Overlap 1-16 Program Parms & Parm+ [1.5.2.1] [1.5.2.2]

Overlap Conflict Lock	OFF	Overlap Lock Inhibit	OFF	Parent Ph Clearance	ON	Extra Included Ph	ON

1	Included Ø									NORMAL		9	Included Ø										NORMAL
	Modifier Ø									Grn			Modifier Ø										Grn
	Conflict Ø									Yel	3.5		Conflict Ø										Yel 3.5
A	Conflict Olap									Red	1.5	I	Conflict Olap										Red 1.5
	Conflict Ped									LG			Conflict Ped										LG
2	Included Ø									NORMAL		10	Included Ø										NORMAL
	Modifier Ø									Grn			Modifier Ø										Grn
	Conflict Ø									Yel	3.5		Conflict Ø										Yel 3.5
B	Conflict Olap									Red	1.5	J	Conflict Olap										Red 1.5
	Conflict Ped									LG			Conflict Ped										LG
3	Included Ø									NORMAL		11	Included Ø										NORMAL
	Modifier Ø									Grn			Modifier Ø										Grn
	Conflict Ø									Yel	3.5		Conflict Ø										Yel 3.5
C	Conflict Olap									Red	1.5	K	Conflict Olap										Red 1.5
	Conflict Ped									LG			Conflict Ped										LG
4	Included Ø									NORMAL		12	Included Ø										NORMAL
	Modifier Ø									Grn			Modifier Ø										Grn
	Conflict Ø									Yel	3.5		Conflict Ø										Yel 3.5
D	Conflict Olap									Red	1.5	L	Conflict Olap										Red 1.5
	Conflict Ped									LG			Conflict Ped										LG
5	Included Ø									NORMAL		13	Included Ø										NORMAL
	Modifier Ø									Grn			Modifier Ø										Grn
	Conflict Ø									Yel	3.5		Conflict Ø										Yel 3.5
E	Conflict Olap									Red	1.5	M	Conflict Olap										Red 1.5
	Conflict Ped									LG			Conflict Ped										LG
6	Included Ø									NORMAL		14	Included Ø										NORMAL
	Modifier Ø									Grn			Modifier Ø										Grn
	Conflict Ø									Yel	3.5		Conflict Ø										Yel 3.5
F	Conflict Olap									Red	1.5	N	Conflict Olap										Red 1.5
	Conflict Ped									LG			Conflict Ped										LG
7	Included Ø									NORMAL		15	Included Ø										NORMAL
	Modifier Ø									Grn			Modifier Ø										Grn
	Conflict Ø									Yel	3.5		Conflict Ø										Yel 3.5
G	Conflict Olap									Red	1.5	O	Conflict Olap										Red 1.5
	Conflict Ped									LG			Conflict Ped										LG
8	Included Ø									NORMAL		16	Included Ø										NORMAL
	Modifier Ø									Grn			Modifier Ø										Grn
	Conflict Ø									Yel	3.5		Conflict Ø										Yel 3.5
H	Conflict Olap									Red	1.5	P	Conflict Olap										Red 1.5
	Conflict Ped									LG			Conflict Ped										LG

Channel Settings [1.8.1]

.....Channel ->>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Phase / Olap #	1	2	3	4	5	6	7	8			2	4	6	8										
Channel Type	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	PED	PED	PED	PED	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH
Channel Flash	DRK	YEL	DRK	RED	DRK	YEL	DRK	RED	RED	RED	DRK	DRK	DRK	DRK	RED	RED	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK
Alt Hz																								

Channel+ Settings [1.8.4]

.....Channel ->>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Flash Red+																								
Flash Yellow+																								
Flash Green+																								
Flash Inh Red+																								

Channel Params[1.8.3]	C1 IO Mode	USER	Single BIU Map	SINGLE	Invert Rail Input	OFF	Olap Ovrd							

Coord Transition, CoorPhs [2.5]

Pat#	Short	Long	Dwell	No Shortway Ø				E-Yld	Offset	RetHld	Float	Min Veh Perm	Min Ped Perm
1	12	22							EndGRN				
2	12	22							EndGRN				
3	12	22							EndGRN				
4	12	22							EndGRN				
5	12	22							EndGRN				
6	12	22							EndGRN				
7	12	22							EndGRN				
8	12	22							EndGRN				
9	12	22							EndGRN				
10	12	22							EndGRN				
11	12	22							EndGRN				
12	12	22							EndGRN				
13	12	22							EndGRN				
14	12	22							EndGRN				
15	12	22							EndGRN				
16	12	22							EndGRN				
17	12	22							EndGRN				
18	12	22							EndGRN				
19	12	22							EndGRN				
20	12	22							EndGRN				
21	12	22							EndGRN				
22	12	22							EndGRN				
23	12	22							EndGRN				
24	12	22							EndGRN				
25	0	0							BegGRN				
26	0	0							BegGRN				
27	0	0							BegGRN				
28	0	0							BegGRN				
29	0	0							BegGRN				
30	0	0							BegGRN				
31	0	0							BegGRN				
32	0	0							BegGRN				
33	0	0							BegGRN				
34	0	0							BegGRN				
35	0	0							BegGRN				
36	0	0							BegGRN				
37	0	0							BegGRN				
38	0	0							BegGRN				
39	0	0							BegGRN				
40	0	0							BegGRN				
41	0	0							BegGRN				
42	0	0							BegGRN				
43	0	0							BegGRN				
44	0	0							BegGRN				
45	0	0							BegGRN				
46	0	0							BegGRN				
47	0	0							BegGRN				
48	0	0							BegGRN				

R-9

Veh Par 1-64 [5.1]

Det #	Call Ø	Swi Ø	Dlay	Ext	Que	No Act	Max Pres	Err Cnt	Fail Time
1	8						45	50	2
2	3		5				45	50	2
3	2						45	50	2
4	5		5				45	50	2
5	4						45	50	2
6	7		5				45	50	2
7	6						45	50	2
8	1		5				45	50	2
9							45	50	2
10							45	50	2
11							45	50	2
12							45	50	2
13							45	50	2
14							45	50	2
15							45	50	2
16							45	50	2
17							45	50	2
18							45	50	2
19							45	50	
20							45	50	
21							45	50	
22							45	50	
23							45	50	
24							45	50	
25							45	50	
26							45	50	
27							45	50	
28							45	50	
29							45	50	
30							45	50	
31							45	50	
32							45	50	

Veh Par 1-64 [5.1]

Det #	Call Ø	Swi Ø	Dlay	Ext	Que	No Act	Max Pres	Err Cnt	Fail Time
33							45	50	
34							45	50	
35							45	50	
36							45	50	
37							45	50	
38							45	50	
39							45	50	
40							45	50	
41							45	50	
42							45	50	
43							45	50	
44							45	50	
45							45	50	
46							45	50	
47							45	50	
48							45	50	
49							45	50	
50							45	50	
51							45	50	
52							45	50	
53							45	50	
54							45	50	
55							45	50	
56							45	50	
57							45	50	
58							45	50	
59							45	50	
60							45	50	
61							45	50	
62							45	50	
63							45	50	
64							45	50	

Vehicle Options 1-64 [5.2]

Det #	Call	Ext	Que	Add Init	Red Lock	Yell Lock	occ	vol
1	1	1		1				
2	1	1		1				
3	1	1		1				
4	1	1		1				
5	1	1		1				
6	1	1		1				
7	1	1		1				
8	1	1		1				
9	1	1		1				
10	1	1		1				
11	1	1		1				
12	1	1		1				
13	1	1		1				
14	1	1		1				
15	1	1		1				
16	1	1		1				
17	1	1		1				
18	1	1		1				
19	1	1		1				
20	1	1		1				
21	1	1		1				
22	1	1		1				
23	1	1		1				
24	1	1		1				
25	1	1		1				
26	1	1		1				
27	1	1		1				
28	1	1		1				
29	1	1		1				
30	1	1		1				
31	1	1		1				
32	1	1		1				

Vehicle Options 1-64 [5.2]

Det #	Call	Ext	Que	Add AddIni	Red Lock	Yell Lock	occ	vol
33	1	1		1				
34	1	1		1				
35	1	1		1				
36	1	1		1				
37	1	1		1				
38	1	1		1				
39	1	1		1				
40	1	1		1				
41	1	1		1				
42	1	1		1				
43	1	1		1				
44	1	1		1				
45	1	1		1				
46	1	1		1				
47	1	1		1				
48	1	1		1				
49	1	1		1				
50	1	1		1				
51	1	1		1				
52	1	1		1				
53	1	1		1				
54	1	1		1				
55	1	1		1				
56	1	1		1				
57	1	1		1				
58	1	1		1				
59	1	1		1				
60	1	1		1				
61	1	1		1				
62	1	1		1				
63	1	1		1				
64	1	1		1				

Parameters+ 1-64 [5.3]

Det #	oc G	oc Y	oc R	Dlay 1	Dlay 2	Type	Src
1						NORM	
2						NORM	
3						NORM	
4						NORM	
5						NORM	
6						NORM	
7						NORM	
8						NORM	
9						NORM	
10						NORM	
11						NORM	
12						NORM	
13						NORM	
14						NORM	
15						NORM	
16						NORM	
17						NORM	
18						NORM	
19						NORM	
20						NORM	
21						NORM	
22						NORM	
23						NORM	
24						NORM	
25						NORM	
26						NORM	
27						NORM	
28						NORM	
29						NORM	
30						NORM	
31						NORM	
32						NORM	

Parameters+ 1-64 [5.3]

Det #	occ Grn	occ Yell	occ Red	Dlay 1	Dlay 2	Type	Src	Det #	occ Grn	occ Yell	occ Red	Dlay 1	Dlay 2	Type	Src	Det #	occ Grn	occ Yell	occ Red	Dlay 1	Dlay 2	Type	Src
33						NORM		44						NORM		55						NORM	
34						NORM		45						NORM		56						NORM	
35						NORM		46						NORM		57						NORM	
36						NORM		47						NORM		58						NORM	
37						NORM		48						NORM		59						NORM	
38						NORM		49						NORM		60						NORM	
39						NORM		50						NORM		61						NORM	
40						NORM		51						NORM		62						NORM	
41						NORM		52						NORM		63						NORM	
42						NORM		53						NORM		64						NORM	
43						NORM		54						NORM									

Ped Det Parms [5.4]

Det #	Call Ø	No Act	Max Pres	Err Cnt
1	2	0	15	0
2	4	0	15	0
3	6	0	15	0
4	8	0	15	0
5		0	15	0
6		0	15	0
7		0	15	0
8		0	15	0

Unit Paramters [1.2.1]

TS2 Det Faults	ON

Vol/Occ Report Parm [1.5.8]

Vol/Occ Period Minutes	0
Vol/Occ Period Minutes	15

R-9

Preemption Times [3.1], Options+ [3.6]

Pre #	Enable	Type	Output	Delay	MinDura
1	ON	RAIL	DWELL		
2	ON	RAIL	DWELL		
3	ON	EMERG	DWELL		
4	ON	EMERG	DWELL		
5	ON	EMERG	DWELL		
6	ON	EMERG	DWELL		

Pre #	MaxPres	MinGrn	MinWlk	PedClr	Co+Pre
1					ON
2					ON
3					ON
4					ON
5					ON
6					ON

Pre #	Track Grn	Min Dwell	Ext Dwell	PedClr	Yel
1		2			
2		2			
3		2			
4		2			
5		2			
6		2			

Pre #	Red	Pattern	Skip
1			OFF
2			OFF
3			OFF
4			OFF
5			OFF
6			OFF

Low Priority Preempts

Pre #	Type	Min	Max
7	OFF	0	0
8	OFF	0	0
9	OFF	0	0
10	OFF	0	0

Unit Parameters [1.2.1]

Stop Timer Over Preempt	OFF
Preempt or Ext Output	PRE
Max Seek Track Time	0
Max Seek Dwell Time	0

Channel Parameters [1.8.3]

D Conn Mappings	NONE
Pre Invert Rail Input	

Adv Timers [3.8]

enterYellowChange			
enterRedClr		trackRedClr	
trackYellowClr		AllRedB4Dwell	

Track Clear Phases [3.2], Track Clear Overlaps+ [3.5]

Pre #	Track Phases	Track Overlaps
1		
2		
3		
4		
5		
6		

Dwell Phases [3.2] and Overlaps+ [3.5]

Pre #		
1	Phases	
	Overlaps	
	Peds	
2	Phases	
	Overlaps	
	Peds	
3	Phases	
	Overlaps	
	Peds	
4	Phases	
	Overlaps	
	Peds	
5	Phases	
	Overlaps	
	Peds	
6	Phases	
	Overlaps	
	Peds	

Exit Phases [3.2]

Pre #	Exit Phase
1	
2	
3	
4	
5	
6	

Preemption 1, Options+ [3.6]

Pre #	Lock	Override Auto Flsh	Override Higher	Flsh Dwel	Link
1	ON	ON	ON	OFF	
2	ON	ON	ON	ON	
3	ON	ON	ON	OFF	
4	ON	ON	ON	OFF	
5	ON	ON	ON	OFF	
6	ON	ON	ON	OFF	

Init'l Dwell [3.9]

Phases								
Peds								
Overlap								

R-9

Alt# 1 Times Table [1.1.6.1]

Column#..... ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Alt# 2 Times Table [1.1.6.1]

Column#..... ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Alt# 3 Times Table [1.1.6.1]

Column#..... ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Alt# 1 Options Table [1.1.6.2]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø								
Lock Calls	1	1	1	1	1	1	1	1
Soft Recall								
Dual Enrty								
Enabl SimGap	1	1	1	1	1	1	1	1
Gaur Passage								
Rest In Walk								
Cond Service								
Reservice								
Non-Act 1								
Red Rest								
Max2								
Ped Delay								
Conflicting Ø1								

R-7

Annual Schedule [4.3] Month of Year | Day of Week | Date

	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Day Plan	Link To
1																																																				1	
2																																																				1	
3																																																				1	
4																																																				1	
5																																																				1	
6																																																				1	
7																																																				1	
8																																																				1	
9																																																				1	
10																																																				1	
11																																																				1	
12																																																				1	
13																																																				1	
14																																																				1	
15																																																				1	
16																																																				1	
17																																																				1	
18																																																				1	
19																																																				1	
20																																																				1	
21																																																				1	
22																																																				1	
23																																																				1	
24																																																				1	

R-9

R-9

Day Plans [4.4]

Day Plan	Hour	Min	Act
Day Plan 1	1		
	2		
	3		
	4		
	5		
	6		
	7		
	8		
	9		
	10		
	11		
	12		
	13		
	14		
	15		
	16		
Day Plan 2	1		
	2		
	3		
	4		
	5		
	6		
	7		
	8		
	9		
	10		
	11		
	12		
	13		
	14		
	15		
	16		
Day Plan 3	1		
	2		
	3		
	4		
	5		
	6		
	7		
	8		
	9		
	10		
	11		
	12		
	13		
	14		
	15		
	16		
Day Plan 4	1		
	2		
	3		
	4		
	5		
	6		
	7		
	8		
	9		
	10		
	11		
	12		
	13		
	14		
	15		
	16		
Day Plan 5	1		
	2		
	3		
	4		
	5		
	6		
	7		
	8		
	9		
	10		
	11		
	12		
	13		
	14		
	15		
	16		
Day Plan 6	1		
	2		
	3		
	4		
	5		
	6		
	7		
	8		
	9		
	10		
	11		
	12		
	13		
	14		
	15		
	16		
Day Plan 7	1		
	2		
	3		
	4		
	5		
	6		
	7		
	8		
	9		
	10		
	11		
	12		
	13		
	14		
	15		
	16		
Day Plan 8	1		
	2		
	3		
	4		
	5		
	6		
	7		
	8		
	9		
	10		
	11		
	12		
	13		
	14		
	15		
	16		
Day Plan 9	1		
	2		
	3		
	4		
	5		
	6		
	7		
	8		
	9		
	10		
	11		
	12		
	13		
	14		
	15		
	16		
Day Plan 10	1		
	2		
	3		
	4		
	5		
	6		
	7		
	8		
	9		
	10		
	11		
	12		
	13		
	14		
	15		
	16		
Day Plan 11	1		
	2		
	3		
	4		
	5		
	6		
	7		
	8		
	9		
	10		
	11		
	12		
	13		
	14		
	15		
	16		
Day Plan 12	1		
	2		
	3		
	4		
	5		
	6		
	7		
	8		
	9		
	10		
	11		
	12		
	13		
	14		
	15		
	16		
Day Plan 13	1		
	2		
	3		
	4		
	5		
	6		
	7		
	8		
	9		
	10		
	11		
	12		
	13		
	14		
	15		
	16		
Day Plan 14	1		
	2		
	3		
	4		
	5		
	6		
	7		
	8		
	9		
	10		
	11		
	12		
	13		
	14		
	15		
	16		
Day Plan 15	1		
	2		
	3		
	4		
	5		
	6		
	7		
	8		
	9		
	10		
	11		
	12		
	13		
	14		
	15		
	16		

Action Table [4.5]

Act#	Pat#	A1	A2	A3	S1	S2	S3	S4	S5	S6	S7	S8
1	1											
2	2											
3	3											
4	4											
5	5											
6	6											
7	7											
8	8											
9	9											
10	10											
11	11											
12	12											
13	13											
14	14											
15	15											
16	16											
17	17											
18	18											
19	19											
20	20											
21	21											
22	22											
23	23											
24	24											
25												
26												
27												
28												
29												
30												
31												
32												
33												
34												
35												
36												
37												
38												
39												
40												
48												
98												
99												
100	255											

Coord Alternate Tables - Pat+ [2.6]

Pat#	ØOpt	ØTime	DetG	CIR	CIC	CNA1	Overlap Off 1	2	3	4	5	6	7	8	Dia	Max2
1															DFT	
2															DFT	
3															DFT	
4															DFT	
5															DFT	
6															DFT	
7															DFT	
8															DFT	
9															DFT	
10															DFT	
11															DFT	
12															DFT	
13															DFT	
14															DFT	
15															DFT	
16															DFT	
17															DFT	
18															DFT	
19															DFT	
20															DFT	
21															DFT	
22															DFT	
23															DFT	
24															DFT	
25															DFT	
26															DFT	
27															DFT	
28															DFT	
29															DFT	
30															DFT	
31															DFT	
32															DFT	
33															DFT	
34															DFT	
35															DFT	
36															DFT	
37															DFT	
38															DFT	
39															DFT	
40															DFT	
41															DFT	
42															DFT	
43															DFT	
44															DFT	
45															DFT	
46															DFT	
47															DFT	
48															DFT	

R-9

R-9

C1-USER IO Map [1.8.9.1 In]

I1-1	1	Veh Call 1
I1-2	2	Veh Call 2
I1-3	3	Veh Call 3
I1-4	4	Veh Call 4
I1-5	5	Veh Call 5
I1-6	6	Veh Call 6
I1-7	7	Veh Call 7
I1-8	8	Veh Call 8
I2-1	189	Unused
I2-2	189	Unused
I2-3	189	Unused
I2-4	189	Unused
I2-5	189	Unused
I2-6	189	Unused
I2-7	189	Unused
I2-8	189	Unused
I3-1	189	Unused
I3-2	189	Unused
I3-3	189	Unused
I3-4	189	Unused
I3-5	129	Ped Call 1
I3-6	130	Ped Call 2
I3-7	131	Ped Call 3
I3-8	132	Ped Call 4
I4-1		C11S Connector
I4-2		
I4-3		
I4-4		
I4-5	189	Unused
I4-6	189	Unused
I4-7	229	33xCMUStop
I4-8	228	33xFlashSns
I5-1	189	Unused
I5-2	189	Unused
I5-3	189	Unused
I5-4	189	Unused
I5-5	189	Unused
I5-6	189	Unused
I5-7	189	Unused
I5-8	189	Unused
I6-1	189	Unused
I6-2	189	Unused
I6-3	189	Unused
I6-4	189	Unused
I6-5	189	Unused
I6-6	189	Unused
I6-7	189	Unused
I6-8	189	Unused

C1-USER IO Map [1.8.9.2 Out]

O1-1	1	Ch1 Red
O1-2	49	Ch1 Green
O1-3	2	Ch2 Red
O1-4	26	Ch2 Yellow
O1-5	50	Ch2 Green
O1-6	3	Ch3 Red
O1-7	27	Ch3 Yellow
O1-8	51	Ch3 Green
O2-1	4	Ch4 Red
O2-2	52	Ch4 Green
O2-3	5	Ch5 Red
O2-4	29	Ch5 Yellow
O2-5	53	Ch5 Green
O2-6	6	Ch6 Red
O2-7	30	Ch6 Yellow
O2-8	54	Ch6 Green
O3-1	7	Ch7 Red
O3-2	55	Ch7 Green
O3-3	8	Ch8 Red
O3-4	32	Ch8 Yellow
O3-5	56	Ch8 Green
O3-6	9	Ch9 Red
O3-7	33	Ch9 Yellow
O3-8	57	Ch9 Green
O4-1	10	Ch10 Red
O4-2	58	Ch10 Green
O4-3	11	Ch11 Red
O4-4	35	Ch11 Yellow
O4-5	59	Ch11 Green
O4-6	12	Ch12 Red
O4-7	36	Ch12 Yellow
O4-8	60	Ch12 Green
O5-1	28	Ch4 Yellow
O5-2	34	Ch10 Yellow
O5-3	25	Ch1 Yellow
O5-4	31	Ch7 Yellow
O5-5	115	Not Used
O5-6	115	Not Used
O5-7	115	Not Used
O5-8	114	Watchdog
O6-1	115	Not Used
O6-2	115	Not Used
O6-3	13	Ch13 Red
O6-4	37	Ch13 Yellow
O6-5	61	Ch13 Green
O6-6	14	Ch14 Red
O6-7	38	Ch14 Yellow
O6-8	62	Ch14 Green

C1-USER IO Map [1.8.9.2 Out]

O7-1	115	Not Used
O7-2	115	Not Used
O7-3	115	Not Used
O7-4	115	Not Used
O7-5	115	Not Used
O7-6	115	Not Used
O7-7	115	Not Used
O7-8	115	Not Used

C11S-USER IO Map [1.8.9.1 In]

I4-1	189	Unused
I4-2	189	Unused
I4-3	189	Unused
I4-4	189	Unused
I7-1	189	Unused
I7-2	189	Unused
I7-3	189	Unused
I7-4	189	Unused
I7-5	189	Unused
I7-6	189	Unused
I7-7	189	Unused
I7-8	189	Unused
I8-1	189	Unused
I8-2	189	Unused
I8-3	189	Unused
I8-4	189	Unused
I8-5	189	Unused
I8-6	189	Unused
I8-7	189	Unused
I8-8	189	Unused

C11S-USER IO Map [1.8.9.2 Out]

O8-1	115	Not Used
O8-2	115	Not Used
O8-3	115	Not Used
O8-4	115	Not Used
O8-5	115	Not Used
O8-6	115	Not Used
O8-7	115	Not Used
O8-8	115	Not Used

IO Logic [1.8.7]

	Result			Fcn	Oper		Fcn	Oper		Fcn	Timer	
I	0	=	I	0	---	I	0	---	I	0	DLY	0
I	0	=	I	0	---	I	0	---	I	0	DLY	0
I	0	=	I	0	---	I	0	---	I	0	DLY	0
I	0	=	I	0	---	I	0	---	I	0	DLY	0
I	0	=	I	0	---	I	0	---	I	0	DLY	0
I	0	=	I	0	---	I	0	---	I	0	DLY	0
I	0	=	I	0	---	I	0	---	I	0	DLY	0
I	0	=	I	0	---	I	0	---	I	0	DLY	0
I	0	=	I	0	---	I	0	---	I	0	DLY	0
I	0	=	I	0	---	I	0	---	I	0	DLY	0

Security Access Levels [8.2]

1	SWLOAD	22	NONE	43	NONE
2	SECURE	23	NONE	44	NONE
3	NONE	24	NONE	45	NONE
4	NONE	25	NONE	46	NONE
5	NONE	26	NONE	47	NONE
6	NONE	27	NONE	48	NONE
7	NONE	28	NONE	49	NONE
8	NONE	29	NONE	50	NONE
9	NONE	30	NONE	51	NONE
10	NONE	31	NONE	52	NONE
11	NONE	32	NONE	53	NONE
12	NONE	33	NONE	54	NONE
13	NONE	34	NONE	55	NONE
14	NONE	35	NONE	56	NONE
15	NONE	36	NONE	57	NONE
16	NONE	37	NONE	58	NONE
17	NONE	38	NONE	59	NONE
18	NONE	39	NONE	60	NONE
19	NONE	40	NONE	61	NONE
20	NONE	41	NONE	62	NONE
21	NONE	42	NONE	63	NONE
				64	NONE

Com Parameters [6.1]

Station ID	5009
Group ID	
Master ID	0
Backup Time	900

SysUp Modem [6.1]

Enable Modem	OFF
Idle Time	15
Dial Time	5
Tel:	0,0-000-000-0000
Alt:	0,0-000-000-0000

2070 Port Parms [6.2]

Port	Baud Rate	FCM
SP1	9600	6
SP2	9600	6
SP3	19200	6
SP4	38400	6
SP5	1200	
SP6	1200	
SP7	1200	
SP8	1200	

2070 IP 1 Addressing [6.5]

	Addressing			
Addr				
Mask				
Brdcst				
GtWay				
Port				

2070 IP 2 Addressing [6.5]

	Addressing			
Addr				
Mask				
Brdcst				
GtWay				
Port				

2070 Port Binding Ports [6.6]

	Port	Echo	Mode
ASYNC1	SP1	NONE	
ASYNC2	SP2	NONE	
ASYNC3	SP3	NONE	
ASYNC4	SP4	NONE	
SYNC1	SP5S		
SYNC2	OFF		

2070 Port Binding Functions [6.6]

Function	Channel	Function	Channel
TS2/CVM	NONE	SYSUp	ASYNC2
CMU/MMU	NONE	SYSDown	ASYNC1
Opticom	NONE	Shell	NONE
Loop Det.	NONE		
GPS	NONE		

R-9

R-9

#	Event / Alarm	Ev	Alr
1	Power Up Alarm.	1	1
2	Stop Timing	1	1
3	TS1 Cabinet Door		
4	Coordination Failure	1	1
5	External Alarm # 1	1	1
6	External Alarm # 2	1	1
7	External Alarm # 3		
8	External Alarm # 4		
9	Closed Loop Disabled	1	
10	External Alarm # 5		
11	External Alarm # 6		
12	Manual Control Enable	1	1
13	Coord Free Input		
14	Local Flash Input	1	1
15	MMU Flash		
16	CMU Flash		
17	Cycle Fault	1	
18	Cycle Failure	1	
19	Coordination Fault	1	
20	Controller Fault	1	1
21	Detector SDLC Failure		
22	MMU SDLC Failure		
23	Critical SDLC Failure		
24	Reserved		
25	EEPROM CRC Fault	1	1
26	Detector Diagnostic Failur		
27	BIU Detector Failure	1	1
28	Queue detector alarm	1	
29	Ped Detector Fault	1	
30	Coord Diagnostic Fault		
41	TempAlert Probe Ch. A		
42	TempAlert Probe Ch. B		
47	Coord Active		
48	Preempt Active	1	
49	Preempt 1 Input	1	
50	Preempt 2 Input	1	
51	Preempt 3 Input	1	
52	Preempt 4 Input	1	
53	Preempt 5 Input	1	
54	Preempt 6 Input	1	
55	Preempt 7 Input	1	
56	Preempt 8 Input	1	
57	Preempt 9 Input	1	
58	Preempt 10 Input	1	
61	In Transition	1	
81	FIO Status Alarm		

Call Phases[1.1.5]

Ø	Phases Called By Ø
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	

Redirect Phases[1.1.5]

	From	To	From	To	From	To	From	To
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								

Inhibit Phases[1.1.5]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																

Alt Call & Redirect # 1 [1.1.6.3]

Col	Ø	Phases Called By Ø
1		
2		
3		
4		
5		
6		
7		
8		

	From	To	From	To	From	To	From	To
1								
2								
3								
4								
5								
6								
7								
8								

Alt Inhibit Phases # 1 [1.1.6.3]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																

Alt Call & Redirect # 2 [1.1.6.3]

Col	Ø	Phases Called By Ø
1		
2		
3		
4		
5		
6		
7		
8		

	From	To	From	To	From	To	From	To
1								
2								
3								
4								
5								
6								
7								
8								

Alt Inhibit Phases # 2 [1.1.6.3]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																

Coord, CIC Plans [2.3]

CIC	CoØ	Grow	1	2	3	4	5	6	7	8
1	OFF									
2	OFF									
3	OFF									
4	OFF									

Auto Flash Phase/Olap Settings [1.4.2]

Yel Ø								
Yel (olaps)								

Unit Parameters [1.2.1]

Allow Skip Yellow	OFF	Max Cycle Time	0
TOD Dim Enable	OFF	Cycle Fault Action	ALARM
Tone Disable	OFF		
Diamond Mode	4Ph		
Backup Time (s)	900		
Disable Init Ped	OFF		
Cycle Fault Action	ALARM		
Enable Run Timer	ON		

Advanced Warning [1.1.9]

	Phase	Time
Aux Out 1	0	0
Aux Out 2	0	0

R-9

R-9
Signal #

MODEL 2070 SIGNAL OPERATION
PROGRAMMABLE FEATURES
SIGNAL OPERATION SPECIFICATION

County of ROCKLAND

Signal: **R-9**
Contract: D261615
PIN: 8239.13
File: 39.17-9W
Date: 08/07/13

TABLE OF SWITCH PACKS

SWITCH PACK	FUNCTION	INDICATIONS	FACE	TERMINAL WIRING BOARD		FACE	TERMINAL WIRING BOARD	
				TERMINAL	WIRE COLOR CODE		TERMINAL	WIRE COLOR CODE
1	Ø 1	-----	3	SP 1 R	----------		SP 1 R	
		⊖		SP 1 Y	14 / 10C - D - O / B		SP 1 Y	
		←		SP 1 G	- G / B		SP 1 G	
		Ground Wire		Grnd Bus	- W / B		Grnd Bus	
2	Ø 2	Red	1	SP 2 R	14 / 10C - C - R	2	SP 2 R	14 / 10C - A - R
		Yellow		SP 2 Y	- O		SP 2 Y	- O
		Green		SP 2 G	- G		SP 2 G	- G
		Ground Wire		Grnd Bus	- W		Grnd Bus	- W
3	Ø 3	-----	7	SP 3 R	----------		SP 3 R	
		⊖		SP 3 Y	14 / 15C - B - R / B		SP 3 Y	
		←		SP 3 G	- BL		SP 3 G	
		Ground Wire		Grnd Bus	- B		Grnd Bus	
4	Ø 4	Red	5	SP 4 R	14 / 15C - B - R	6	SP 4 R	14 / 05C - E - R
		Yellow		SP 4 Y	- O		SP 4 Y	- O
		Green		SP 4 G	- G		SP 4 G	- G
		Ground Wire		Grnd Bus	- W		Grnd Bus	- W
5	Ø 5	-----	1	SP 5 R	--------		SP 5 R	
		⊖		SP 5 Y	14 / 10C - C - O / B		SP 5 Y	
		←		SP 5 G	- G / B		SP 5 G	
		Ground Wire		Grnd Bus	- W / B		Grnd Bus	
6	Ø 6	Red	3	SP 6 R	14 / 10C - D - R	4	SP 6 R	14 / 05C - F - R
		Yellow		SP 6 Y	- O		SP 6 Y	- O
		Green		SP 6 G	- G		SP 6 G	- G
		Ground Wire		Grnd Bus	- W		Grnd Bus	- W
7	Ø 7	-----	5	SP 7 R	--------		SP 7 R	
		⊖		SP 7 Y	14 / 15C - B – O / B		SP 7 Y	
		←		SP 7 G	- G / B		SP 7 G	
		Ground Wire		Grnd Bus	- W / B		Grnd Bus	
8	Ø 8	Red	7	SP 8 R	14 / 15C - B - R / W	8	SP 8 R	14 / 10C - A - R / B
		Yellow		SP 8 Y	- BL / W		SP 8 Y	- O / B
		Green		SP 8 G	- G / W		SP 8 G	- G / B
		Ground Wire		Grnd Bus	- B / W		Grnd Bus	- W / B
9				SP 9 R			SP 9 R	
				SP 9 Y			SP 9 Y	
				SP 9 G			SP 9 G	
		Ground Wire		Grnd Bus			Grnd Bus	
10				SP 10 R			SP 10 R	
				SP 10 Y			SP 10 Y	
				SP 10 G			SP 10 G	
		Ground Wire		Grnd Bus			Grnd Bus	
11	PED-1 Ø 2	HAND	21	SP 11 R	14 / 05C - 1P - R		SP 11 R	
		-------		SP 11 Y	-----		SP 11 Y	
		MAN		SP 11 G	- G		SP 11 G	
		Ground Wire		Grnd Bus	- W		Grnd Bus	
12	PED-2 Ø 4	HAND	22	SP 12 R	14 / 05C - 2P - R		SP 12 R	
		-------		SP 12 Y	-----		SP 12 Y	
		MAN		SP 12 G	- G		SP 12 G	
		Ground Wire		Grnd Bus	- W		Grnd Bus	
13	PED-3 Ø 6	HAND	23	SP 13 R	14 / 05C - 3P - R		SP 13 R	
		-------		SP 13 Y	-----		SP 13 Y	
		MAN		SP 13 G	- G		SP 13 G	
		Ground Wire		Grnd Bus	- W		Grnd Bus	
14	PED-4 Ø 8	HAND	24	SP 14 R	14 / 05C - 4P - R		SP 14 R	
		-------		SP 14 Y	-----		SP 14 Y	
		MAN		SP 14 G	- G		SP14 G	
		Ground Wire		Grnd Bus	- W		Grnd Bus	

R-9
Signal #

MODEL 2070 SIGNAL OPERATION
PROGRAMMABLE FEATURES
SIGNAL OPERATION SPECIFICATION

County of ROCKLAND

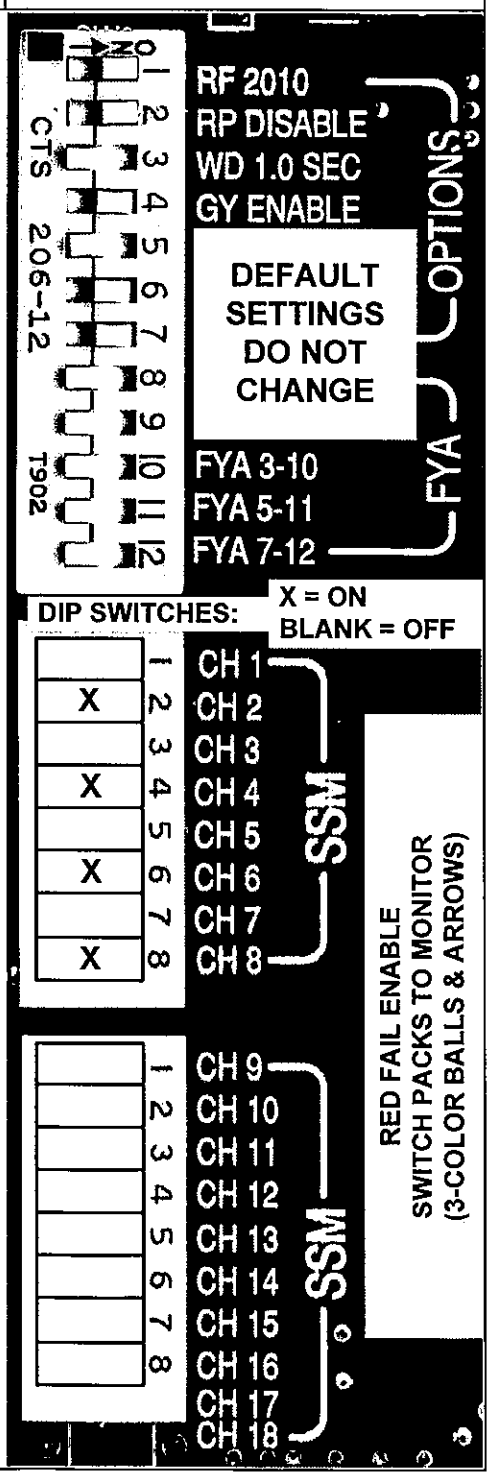
Signal:	**R-9**
Contract:	D261615
PIN:	8239.13
File:	39.17-9W
Date:	08/07/13

TRAFFIC SIGNAL MONITOR PROGRAMMING

CONFLICT MONITOR DIODES TO BE CUT (SWITCH PACKS TO RUN TOGETHER)		
SP1 – SP5	SP4 – SP7	SP8 – SP12
SP1 – SP6	SP4 – SP8	SP8 – SP14
SP1 – SP13	SP4 – SP12	
	SP4 – SP14	SP11 – SP13
SP2 – SP5		
SP2 – SP6	SP5 – SP11	SP12 – SP14
SP2 – SP11		
SP2 – SP13	SP6 – SP11	
	SP6 – SP13	
SP3 – SP7		
SP3 – SP8	SP7 – SP12	
~~SP3 – SP13~~		
3-14		

YELLOW DISABLE: WIRE JUMPERS TO BE INSTALLED FOR PEDS	
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	X
12	X
13	X
14	X
15	
16	

210NYR MONITOR BOARD
(SWITCH PACKS TO MONITOR)



CURRENT MONITOR BOARD (IF USED)

CURRENT MONITOR DIODES TO BE CUT (SWITCH PACKS TO *NOT* MONITOR)
1, 3, 5, 7, 9-16

Notes:

R-9
Signal #

MODEL 2070 SIGNAL OPERATION
PROGRAMMABLE FEATURES
SIGNAL OPERATION SPECIFICATION

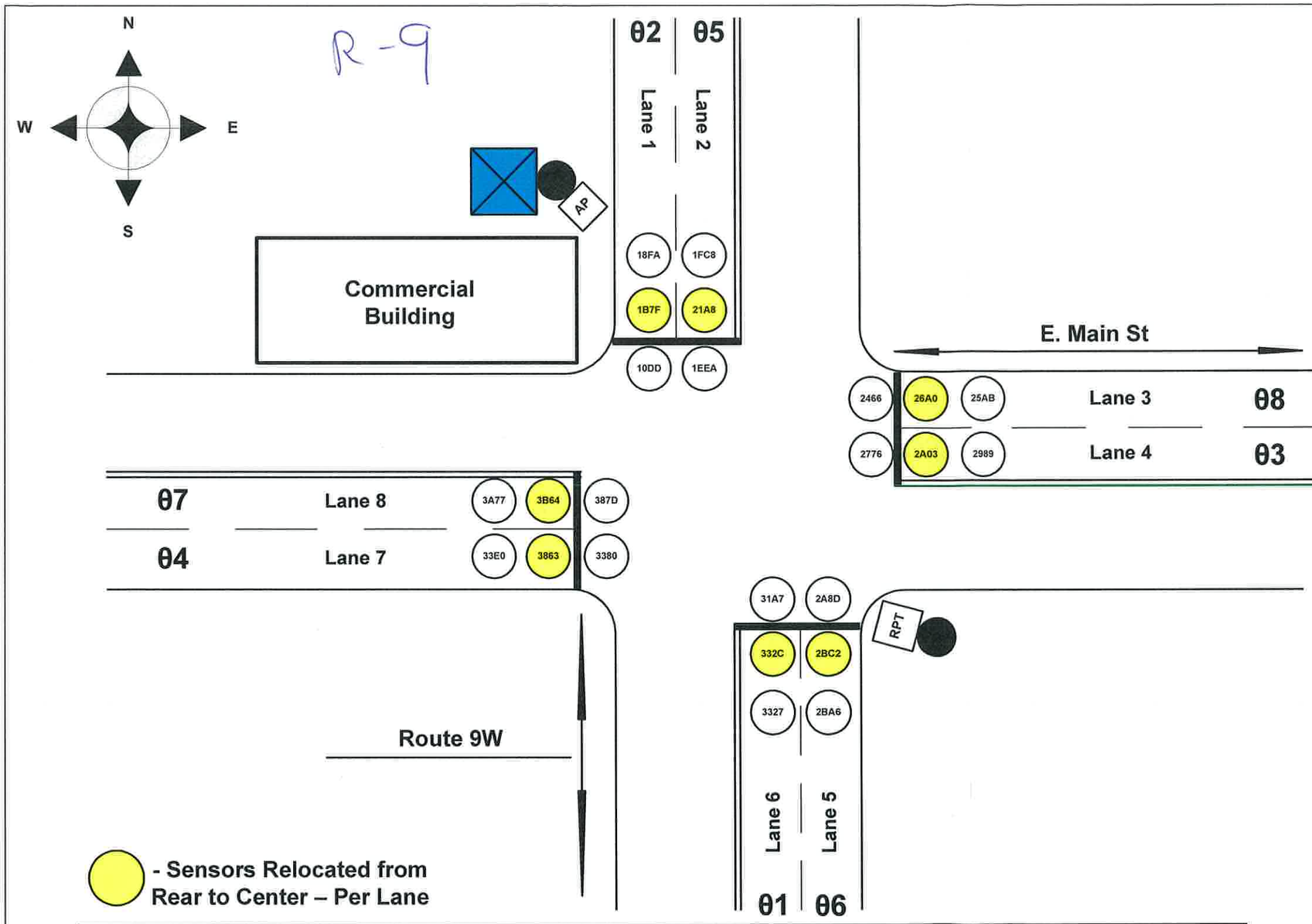
County of ROCKLAND

Signal: **R-9**
Contract: D261615
PIN: 8239.13
File: 39.17-9W
Date: 08/07/13

TABLE OF INPUT WIRING

TERM. NUMBER	FUNCTION	DET. # INPUT #	DET. TYPE	LANE NO.	REMARKS
1A, 1B	Ø 8	1	WIRELESS PUCK	L 3	WB THRU
2A, 2B	Ø 3	2	WIRELESS PUCK	L 4	WB LEFT
3A, 3B	Ø 2	3	WIRELESS PUCK	L 1	SB THRU
4A, 4B	Ø 5	4	WIRELESS PUCK	L 2	SB LEFT
5A, 5B	Ø 4	5	WIRELESS PUCK	L 7	EB THRU
6A, 6B	Ø 7	6	WIRELESS PUCK	L 8	EB LEFT
7A, 7B	Ø 6	7	WIRELESS PUCK	L 5	NB THRU
8A, 8B	Ø 1	8	WIRELESS PUCK	L 6	NB LEFT
9A, 9B					
10A, 10B					
11A, 11B					
12A, 12B					
13A, 13B					
14A, 14B					
15A, 15B					
16A, 16B					
17A, 17B					
18A, 18B					
19A, 19B					
20A, 20B					
21A, 21B	PED 1 - Ø 2	21A	BUTTON		PEDESTRIAN
22A, 22B	PED 2 - Ø 4	22A	BUTTON		PEDESTRIAN
23A, 23B	PED 3 - Ø 6	23A	BUTTON		PEDESTRIAN
24A, 24B	PED 4 - Ø 8	24A	BUTTON		PEDESTRIAN
25A, 25B					
26A, 26B					
27A, 27B					
28A, 28B					

R-9



- Sensors Relocated from Rear to Center – Per Lane

R-9

Access Point/Repeater Configuration Chart

	AP	RP1	RP2	RP3	RP4	RP5
ID Number	11979	2A71				
Radio Ch.	15	15				
Sensor Ch.	15	14				

Sensor Configuration Chart

Lane ID	Sensor ID	Sensor Channel	Sensor Type	CC/EX Card ID	Output Ch.
Lane 1	10DD	15	StopBar	3-15-4	Phase 2
Lane 1	1B7F	15	StopBar	3-15-4	Phase 2
Lane 1	18FA	15	StopBar	3-15-4	Phase 2
Lane 2	1EEA	15	StopBar	3-14-3	Phase 5
Lane 2	21A8	15	StopBar	3-14-3	Phase 5
Lane 2	1FC8	15	StopBar	3-14-3	Phase 5
Lane 3	2466	15	StopBar	3-14-2	Phase 8
Lane 3	26A0	15	StopBar	3-14-2	Phase 8
Lane 3	25AB	15	StopBar	3-14-2	Phase 8
Lane 4	2776	15	StopBar	3-15-1	Phase 3
Lane 4	2A03	15	StopBar	3-15-1	Phase 3
Lane 4	2989	15	StopBar	3-15-1	Phase 3
Lane 5	2A8D	15	StopBar	3-14-4	Phase 6
Lane 5	2BC2	14	StopBar	3-14-4	Phase 6
Lane 5	2BA6	14	StopBar	3-14-4	Phase 6
Lane 6	31A7	15	StopBar	3-15-3	Phase 1
Lane 6	332C	15	StopBar	3-15-3	Phase 1
Lane 6	3327	15	StopBar	3-15-3	Phase 1
Lane 7	3380	15	StopBar	3-15-2	Phase 4
Lane 7	3863	14	StopBar	3-15-2	Phase 4
Lane 7	33E0	14	StopBar	3-15-2	Phase 4
Lane 8	387D	15	StopBar	3-14-1	Phase 7
Lane 8	3B64	15	StopBar	3-14-1	Phase 7
Lane 8	3A77	15	StopBar	3-14-1	Phase 7

INPUT FILE LAYOUT

SLOT 1	SLOT 2	SLOT 3	SLOT 4	SLOT 5	SLOT 6	SLOT 7	SLOT 8	SLOT 9	SLOT 10	SLOT 11	SLOT 12	SLOT 13	SLOT 14
Card:	Card:	Card:	Card:	Card:	Card:	Card:	Card:	Card:	Card:	Card:	Card:	Card:	Card:
Input 1	Input 3	Input 5	Input 7	Input 9	Input 11	Input 13	Input 15	Input 17	Input 19	Input 21	Input 23	Input 25	Input 27
ID: 3-15	ID: 3-15	ID: 3-14	ID: 3-14	ID:	ID:	ID:	ID:	ID:	ID:	ID:	ID:	ID:	ID:
Chan: 3	Chan: 1	Chan: 3	Chan: 1	Chan:	Chan:	Chan:	Chan:	Chan:	Chan:	Chan:	Chan:	Chan:	Chan:
Phase: θ1	Phase: θ3	Phase: θ5	Phase: θ7	Phase:	Phase:	Phase:	Phase:	Phase:	Phase:	Phase:	Phase:	Phase:	Phase:
Input 2	Input 4	Input 6	Input 8	Input 10	Input 12	Input 14	Input 16	Input 18	Input 20	Input 22	Input 24	Input 26	Input 28
ID: 3-15	ID: 3-15	ID: 3-14	ID: 3-14	ID:	ID:	ID:	ID:	ID:	ID:	ID:	ID:	ID:	ID:
Chan: 4	Chan: 2	Chan: 4	Chan: 2	Chan:	Chan:	Chan:	Chan:	Chan:	Chan:	Chan:	Chan:	Chan:	Chan:
Phase: θ2	Phase: θ4	Phase: θ6	Phase: θ8	Phase:	Phase:	Phase:	Phase:	Phase:	Phase:	Phase:	Phase:	Phase:	Phase:

Pucks activated on 12-5-2013

R-9

Date: Nov.2013	Traffic Systems Incorporated	224 North Fehr Way Bayshore, NY 11706 Ph # (631) 242-4292
Drawn By: FD		
Approval:		
Rev:	Description:	
Rev Date:	Manufactured For:	
Scale: None	Location:	
Sheet: 1 of 1	Job# / S/N / PO#	

EAGLE BAY

APPENDIX I

TRAFFIC SIGNAL WARRANT ANALYSIS

TABLE TSW-1

SIGNAL WARRANTS ANALYSIS

(Based on National Manual of Uniform Traffic Control Devices)

INTERSECTION DATA

MAJOR STREET: U.S. Route 9W
MINOR STREET: Tomkins Avenue

LOCATION: Town of Stony Point, Rockland County, NY

DATE: 6/3/2019

VOLUME BASIS..... 2023 Build Traffic Volumes

CONDITION ..... Typical Weekday

CHARACTERISTICS

Number Of Lanes For Moving Traffic By Approach	
Major Street (Excluding Auxiliary Lanes) =	1
Minor Street (Including Auxiliary Lanes) =	1
Speed	
85 % Speed >= 40 mph (Y or N)----->	N
Median	
Raised median 4' or more in width on major street (Y or N)?------>	N
Population	
Community < 10,000 (Y or N)------>	N

TIME	VOLUMES		WARRANT 1 CONDITION A		WARRANT 1 CONDITION B		WARRANT 1 CONDITION A & B COMBINED				WARRANT MET?			
							CONDITION A		CONDITION B				COMBINED	
Hour Begin	Major Street	Minor Street	Major Street	Minor Street	Major Street	Minor Street	Major Street	Minor Street	Major Street	Minor Street	1A	1B	1A	1B
12:00 AM	61	16	500	150	750	75	400	120	600	60	NO	NO	NO	NO
01:00 AM	40	12	500	150	750	75	400	120	600	60	NO	NO	NO	NO
02:00 AM	33	11	500	150	750	75	400	120	600	60	NO	NO	NO	NO
03:00 AM	26	12	500	150	750	75	400	120	600	60	NO	NO	NO	NO
04:00 AM	65	20	500	150	750	75	400	120	600	60	NO	NO	NO	NO
05:00 AM	170	35	500	150	750	75	400	120	600	60	NO	NO	NO	NO
06:00 AM	456	68	500	150	750	75	400	120	600	60	NO	NO	NO	NO
07:00 AM	666	106	500	150	750	75	400	120	600	60	NO	NO	NO	YES
08:00 AM	701	139	500	150	750	75	400	120	600	60	NO	NO	YES	YES
09:00 AM	600	104	500	150	750	75	400	120	600	60	NO	NO	NO	YES
10:00 AM	533	98	500	150	750	75	400	120	600	60	NO	NO	NO	NO
11:00 AM	629	110	500	150	750	75	400	120	600	60	NO	NO	NO	YES
12:00 PM	661	92	500	150	750	75	400	120	600	60	NO	NO	NO	YES
01:00 PM	620	105	500	150	750	75	400	120	600	60	NO	NO	NO	YES
02:00 PM	686	101	500	150	750	75	400	120	600	60	NO	NO	NO	YES
03:00 PM	816	131	500	150	750	75	400	120	600	60	NO	YES	YES	YES
04:00 PM	943	153	500	150	750	75	400	120	600	60	YES	YES	YES	YES
05:00 PM	899	119	500	150	750	75	400	120	600	60	NO	YES	NO	YES
06:00 PM	732	103	500	150	750	75	400	120	600	60	NO	NO	NO	YES
07:00 PM	537	80	500	150	750	75	400	120	600	60	NO	NO	NO	NO
08:00 PM	427	69	500	150	750	75	400	120	600	60	NO	NO	NO	NO
09:00 PM	303	53	500	150	750	75	400	120	600	60	NO	NO	NO	NO
10:00 PM	168	21	500	150	750	75	400	120	600	60	NO	NO	NO	NO
TOTAL HOURS MEETING WARRANTS											**1**	**3**	**3**	**11**
TOTAL HOURS NEEDED TO SATISFY											**8**	**8**	**8***	**8***

MINIMUM VEHICULAR VOLUME	WARRANT 1A: NOT SATISFIED -- NO SIGNAL
INTERRUPTION OF CONTINUOUS TRAFFIC	WARRANT 1B: NOT SATISFIED -- NO SIGNAL
COMBINED CONDITION	WARRANT 1A & 1B COMBINED: NOT SATISFIED -- NO SIGNAL

*NOTE: FOR COMBINED WARRANT BOTH CONIDTIONS 1A & 1B MUST BE SATISFIED FOR 8 HOURS.

TABLE TSW-2

SIGNAL WARRANTS ANALYSIS

(Based on National Manual of Uniform Traffic Control Devices)

INTERSECTION DATA

MAJOR STREET: U.S. Route 9W
MINOR STREET: Tomkins Avenue

LOCATION: Town of Stony Point, Rockland County, NY

DATE: 6/3/2019

VOLUME BASIS..... 2023 Build Traffic Volumes

CONDITION ..... Typical Weekday

CHARACTERISTICS

Number Of Lanes For Moving Traffic By Approach	
Major Street (Excluding Auxiliary Lanes) =	1
Minor Street (Including Auxiliary Lanes) =	1
Speed	
85 % Speed >= 40 mph (Y or N)----->	N
Median	
Raised median 4' or more in width on major street (Y or N)?------>	N
Population	
Community < 10,000 (Y or N)------>	N

TIME	VOLUMES		WARRANT 2[1]		WARRANT 3[1]		WARRANT MET?	
Hour Begin	Major Street	Minor Street	Major Street	Minor Street	Major Street	Minor Street	2	3
			1100	80	1500	100		
12:00 AM	61	16	SEE FIGURE 4C-1		SEE FIGURE 4C-3		NO	NO
01:00 AM	40	12					NO	NO
02:00 AM	33	11					NO	NO
03:00 AM	26	12					NO	NO
04:00 AM	65	20					NO	NO
05:00 AM	170	35					NO	NO
06:00 AM	456	68					NO	NO
07:00 AM	666	106					NO	NO
08:00 AM	701	139					NO	NO
09:00 AM	600	104					NO	NO
10:00 AM	533	98					NO	NO
11:00 AM	629	110					NO	NO
12:00 PM	661	92					NO	NO
01:00 PM	620	105					NO	NO
02:00 PM	686	101					NO	NO
03:00 PM	816	131					NO	NO
04:00 PM	943	153					YES	NO
05:00 PM	899	119					NO	NO
06:00 PM	732	103					NO	NO
07:00 PM	537	80					NO	NO
08:00 PM	427	69					NO	NO
09:00 PM	303	53					NO	NO
10:00 PM	168	21					NO	NO

NOTE major peds = highest volume on major street crosswalk

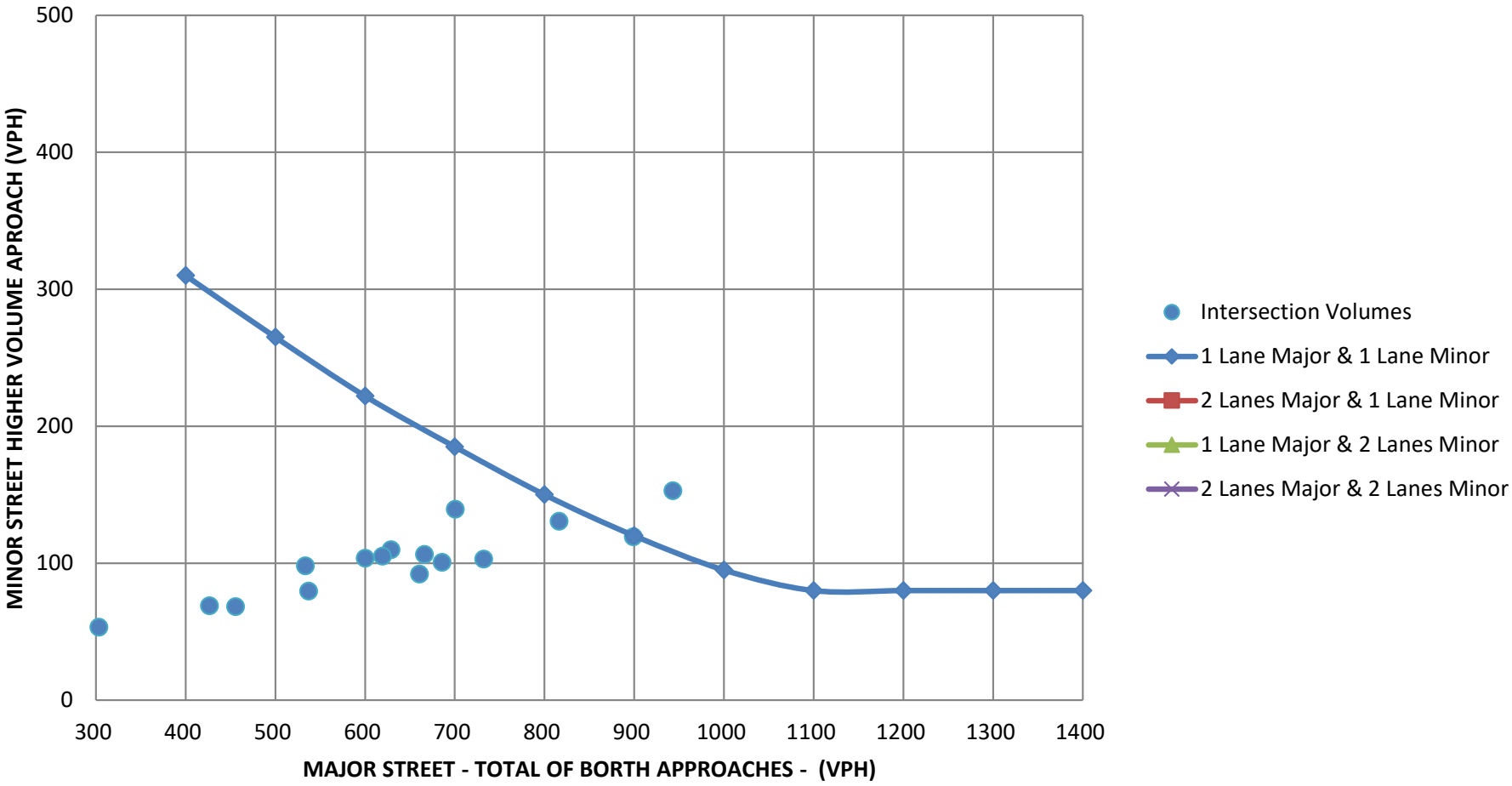
TOTAL HOURS MEETING WARRANTS	**1**	**0**
TOTAL HOURS NEEDED TO SATISFY	**4**	**1**

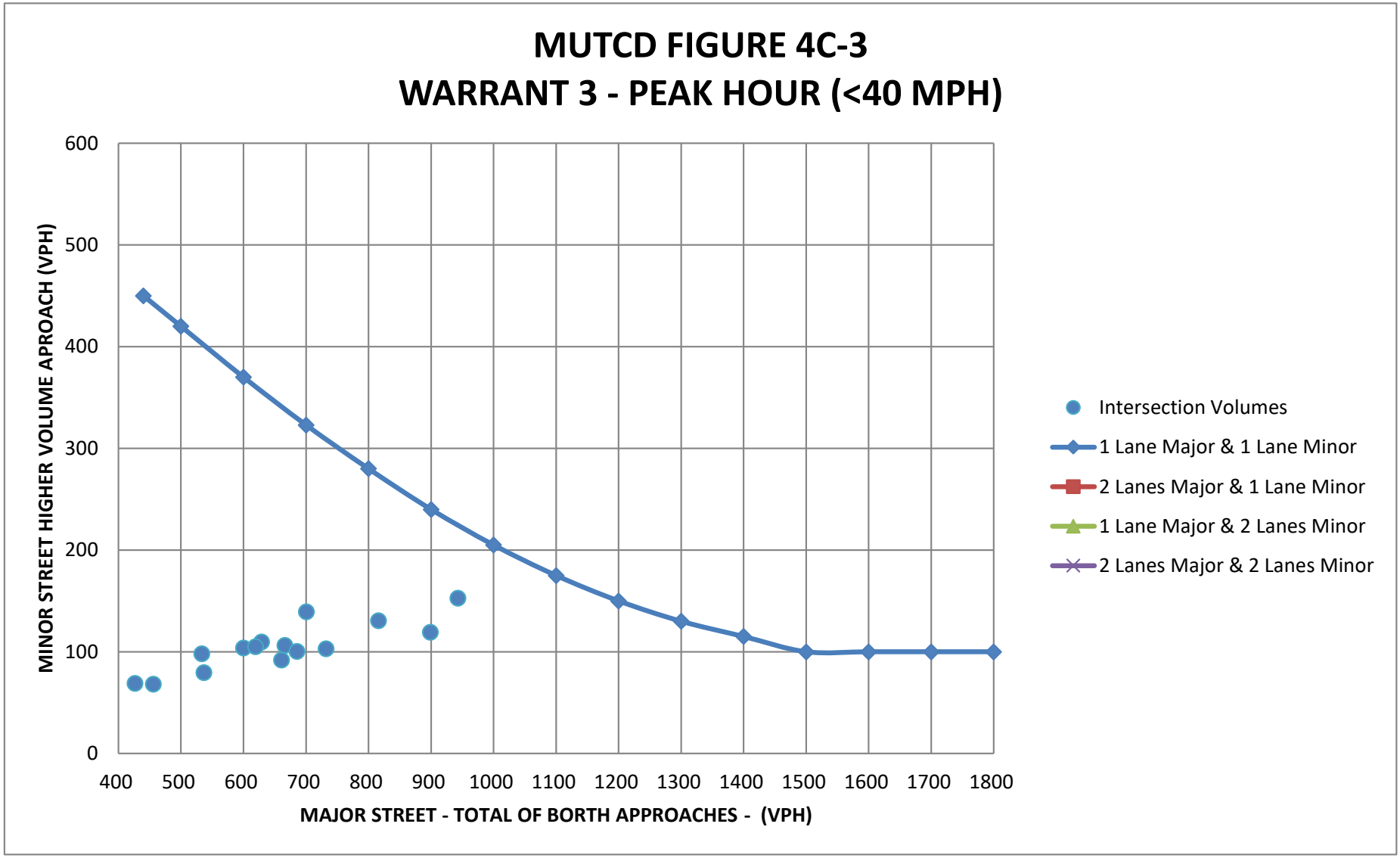
FOUR HOUR VEHICULAR VOLUME	WARRANT 2: NOT SATISFIED -- NO SIGNAL
PEAK HOUR VOLUME	WARRANT 3: NOT SATISFIED -- NO SIGNAL

NOTES:

1) VOLUMES FOR WARRANTS 2 AND 3 ARE COMPARED TO MUTCD FIGURE 4C-2 FOR WARRANT 2 AND FIGURE 4C-4 FOR WARRANT 3 ATTACHED.

MUTCD FIGURE 4C-1
WARRANT 2 - FOUR HOUR VEHICULAR WARRANT (<40 MPH)




MUTCD FIGURE 4C-3
WARRANT 3 - PEAK HOUR (<40 MPH)
MINOR STREET HIGHER VOLUME APROACH (VPH)
600
500
400
300
200
100
0
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
MAJOR STREET - TOTAL OF BORTH APPROACHES - (VPH)
Intersection Volumes
1 Lane Major & 1 Lane Minor
2 Lanes Major & 1 Lane Minor
1 Lane Major & 2 Lanes Minor
2 Lanes Major & 2 Lanes Minor

EAGLE BAY

APPENDIX J

SENSITIVITY ANALYSIS

TABLE NO. 1-S

SENSITIVITY ANALYSIS

HOURLY TRIP GENERATION RATES & ANTICIPATED SITE GENERATED TRAFFIC VOLUMES

EAGLE BAY	ENTRY		EXIT		TOTAL	
	HTGR*	VOLUME	HTGR*	VOLUME	HTGR*	VOLUME
RESIDENTIAL (1) (264 UNITS)						
WEEKDAY PEAK AM HOUR	0.09	25	0.27	70	0.36	95
WEEKDAY PEAK PM HOUR	0.27	71	0.17	45	0.44	116
SUMMER FRIDAY PEAK PM HOUR	0.27	71	0.17	45	0.44	116
SUMMER SATURDAY PEAK HOUR	0.22	57	0.22	59	0.44	116
RESTAURANT (2) (13,500 s.f.)						
WEEKDAY PEAK AM HOUR	5.47	74	4.47	60	9.94	134
WEEKDAY PEAK PM HOUR	6.06	82	3.71	50	9.77	132
SUMMER FRIDAY PEAK PM HOUR	6.06	82	3.71	50	9.77	132
SUMMER SATURDAY PEAK HOUR	5.71	77	5.48	74	11.19	151
PUBLIC ACCESS AREA (3) (6) (1.4 ACRES)						
WEEKDAY PEAK AM HOUR	6.43	9	4.29	6	10.72	15
WEEKDAY PEAK PM HOUR	4.29	6	6.43	9	10.72	15
SUMMER FRIDAY PEAK PM HOUR	4.29	6	6.43	9	10.72	15
SUMMER SATURDAY PEAK HOUR	10.71	15	8.75	12	19.46	27
MARINA (4) (5) (6) (100 SLIPS)						
WEEKDAY PEAK AM HOUR	0.08	8	0.04	4	0.12	12
WEEKDAY PEAK PM HOUR	0.10	10	0.10	10	0.20	20
SUMMER FRIDAY PEAK PM HOUR	0.10	10	0.10	10	0.20	20
SUMMER SATURDAY PEAK HOUR	0.10	10	0.12	12	0.22	22
TOTAL TRIPS (7)						
WEEKDAY PEAK AM HOUR	**------**	**116**	**------**	**140**	**------**	**256**
WEEKDAY PEAK PM HOUR	**------**	**169**	**------**	**114**	**------**	**283**
SUMMER FRIDAY PEAK PM HOUR	**------**	**169**	**------**	**114**	**------**	**283**
SUMMER SATURDAY PEAK HOUR	**------**	**159**	**------**	**157**	**------**	**316**

THE HOURLY TRIP GENERATION RATES (HTGR) ARE BASED ON DATA PUBLISHED BY THE INSTITUTE OF TRANSPORTATION ENGINEERS (ITE) - TRIP GENERATION HANDBOOK - 10TH EDITION

(1) ITE LAND USE 221 - MID-RISE APARTMENTS

(2) ITE LAND USE 932 - HIGH-TURNOVER SIT-DOWN RESTAURANT

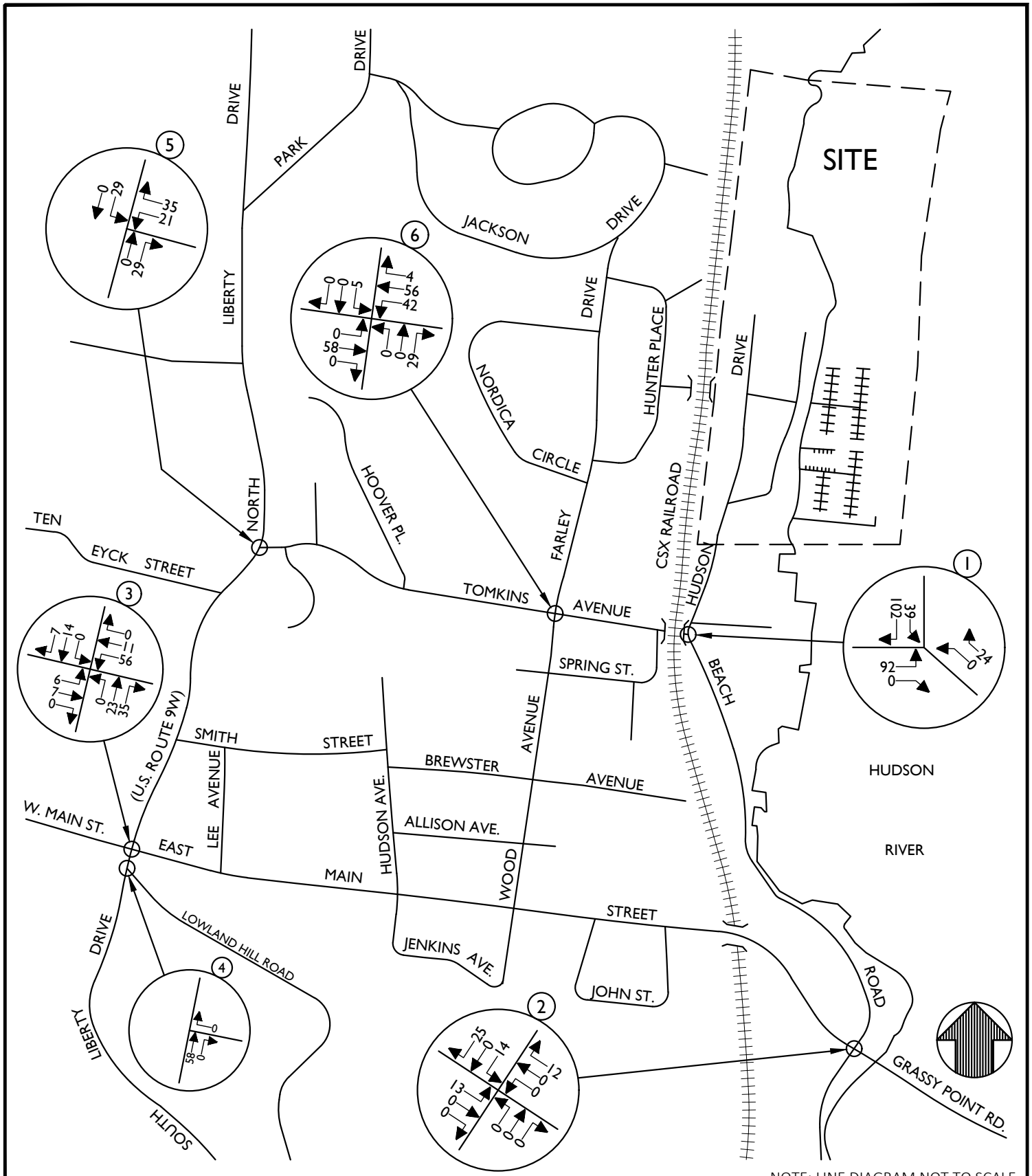
(3) ITE LAND USE 411 - PUBLIC PARK

(4) ITE LAND USE 420 - MARINA

(5) ASSUMES PEAK MARINA TRIP GENERATION

(6) AS NOTED IN THE TRAFFIC IMPACT STUDY, THE EXISTING TRAFFIC TO/FROM THE SITE ASSOCIATED WITH THE EXISTING USES WERE LEFT IN THE FUTURE TRAFFIC CONDITIONS TO CONSERVATIVELY ACCOUNT FOR THE USE OF THE PUBLIC ACCESS AREA AND BOAT SLIPS.

(7) IT SHOULD BE NOTED NO REDUCTION IN TRIP GENERATION (CREDIT) FOR THE LIKELY "INTERPLAY" BETWEEN THE ABOVE USES WAS TAKEN



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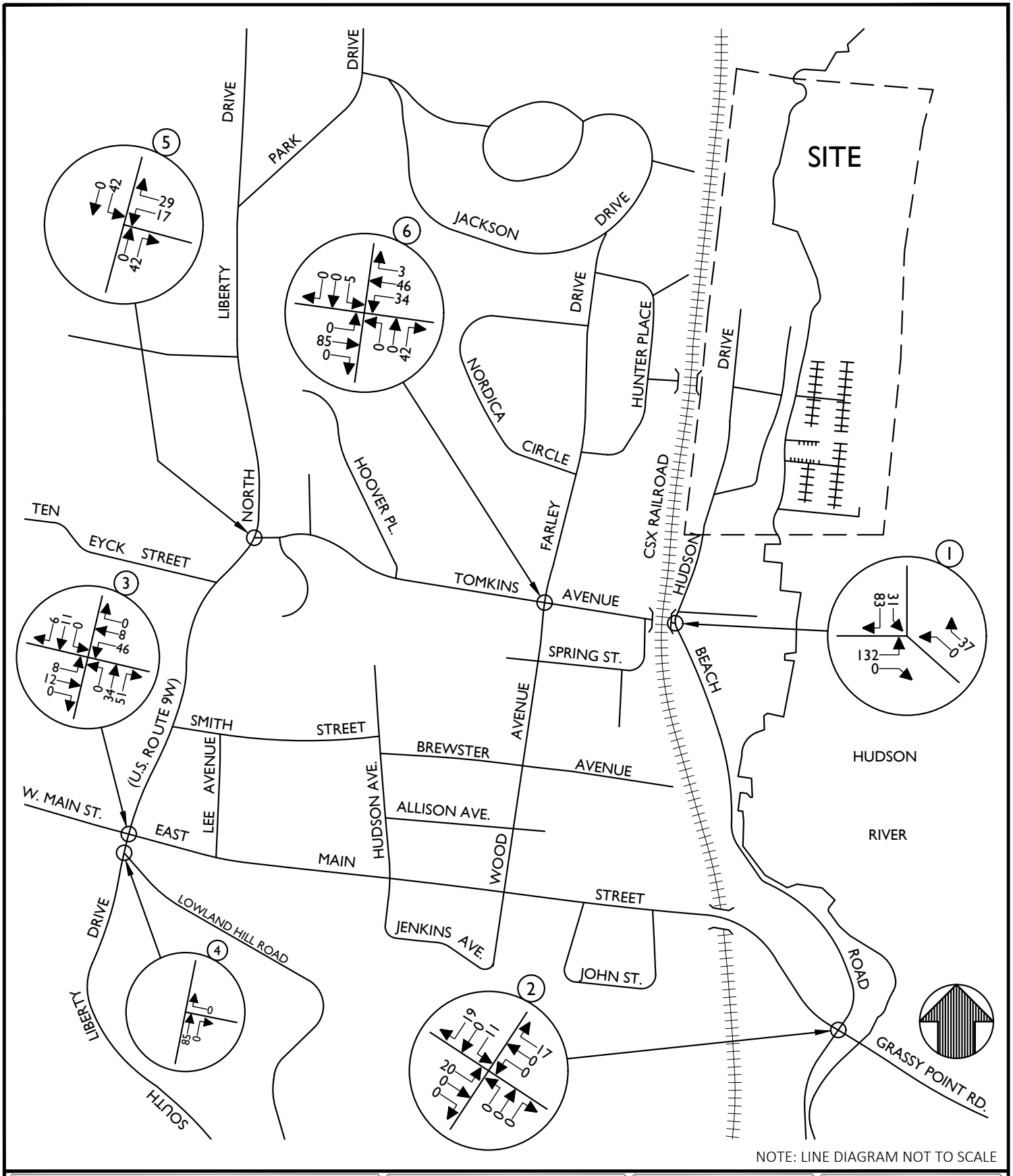
SCALE:	DATE:	DRAWN BY:	CHECKED BY:
N.T.S.	5/28/2019	N.S.T.	P.J.G.

PROJECT NUMBER:	DRAWING NAME:
18005404A	190528_NT_SENSITIVITY_T

SHEET TITLE:
SENSITIVITY ANALYSIS
SITE GENERATED TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR

SHEET NUMBER:
FIGURE NO. 1-S



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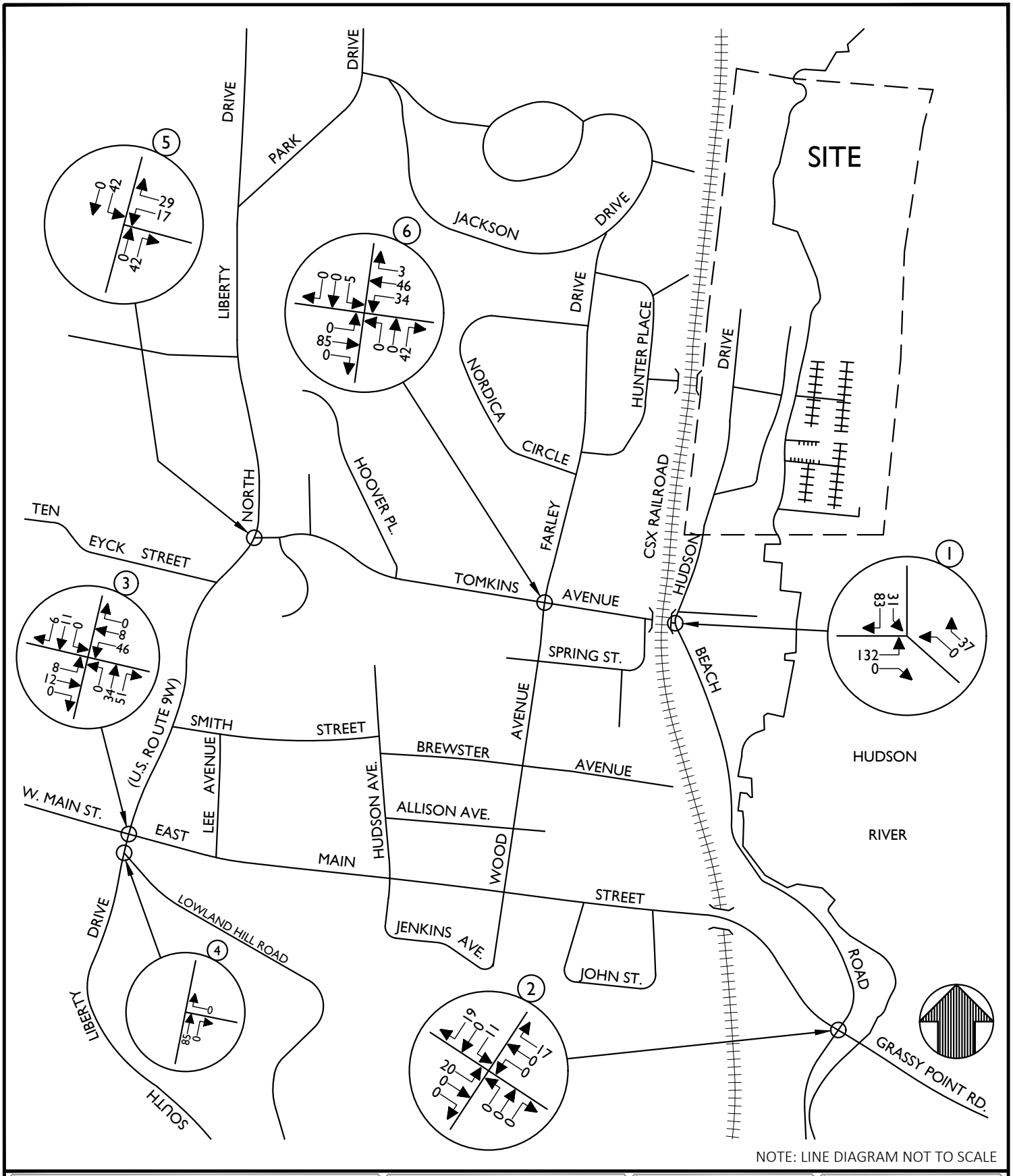
SHEET NUMBER:
FIGURE NO. 2-S



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SHEET TITLE:
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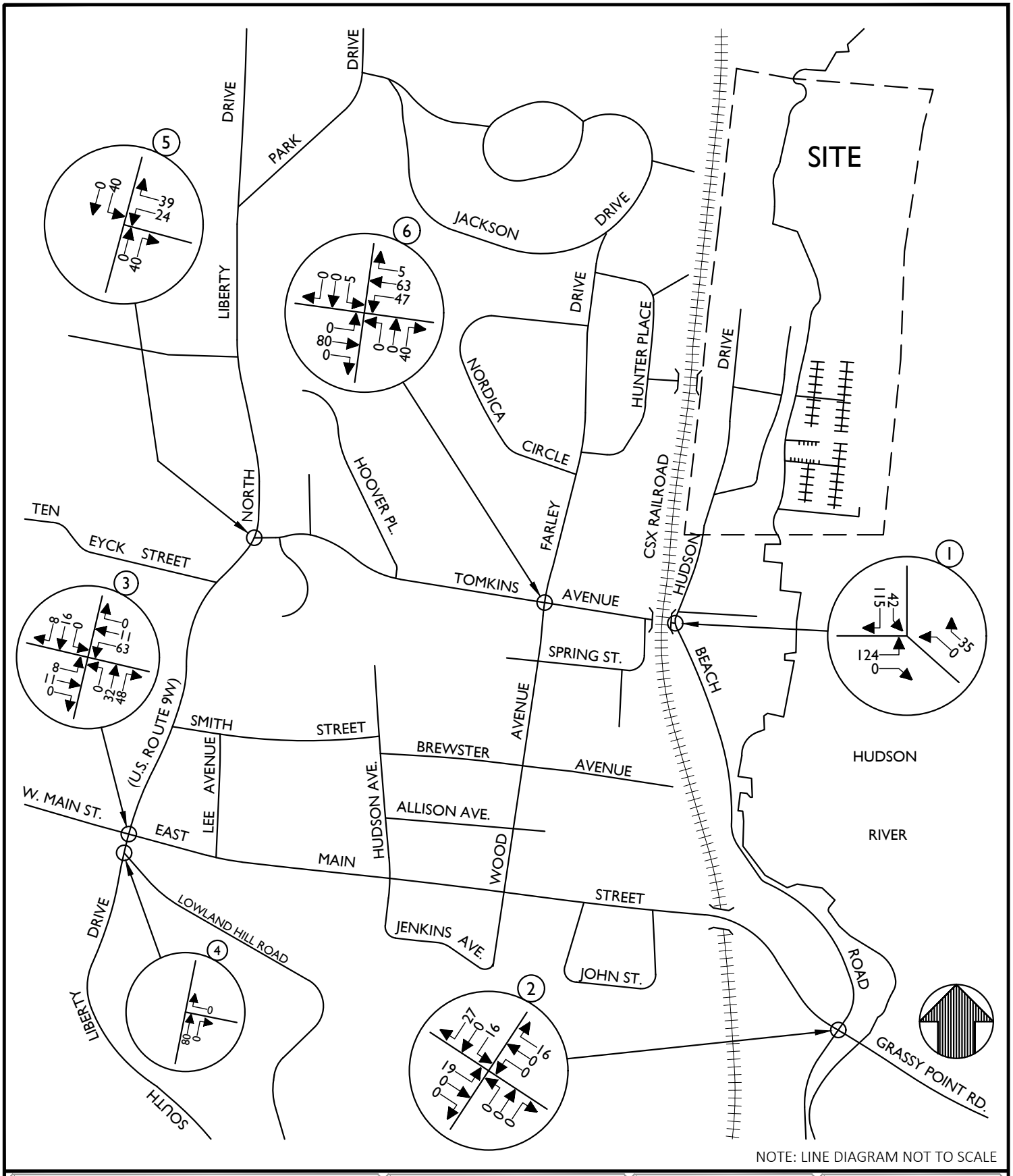
SITE GENERATED TRAFFIC VOLUMES
SUMMER FRIDAY PEAK PM HOUR

SHEET NUMBER:
FIGURE NO. 3-S



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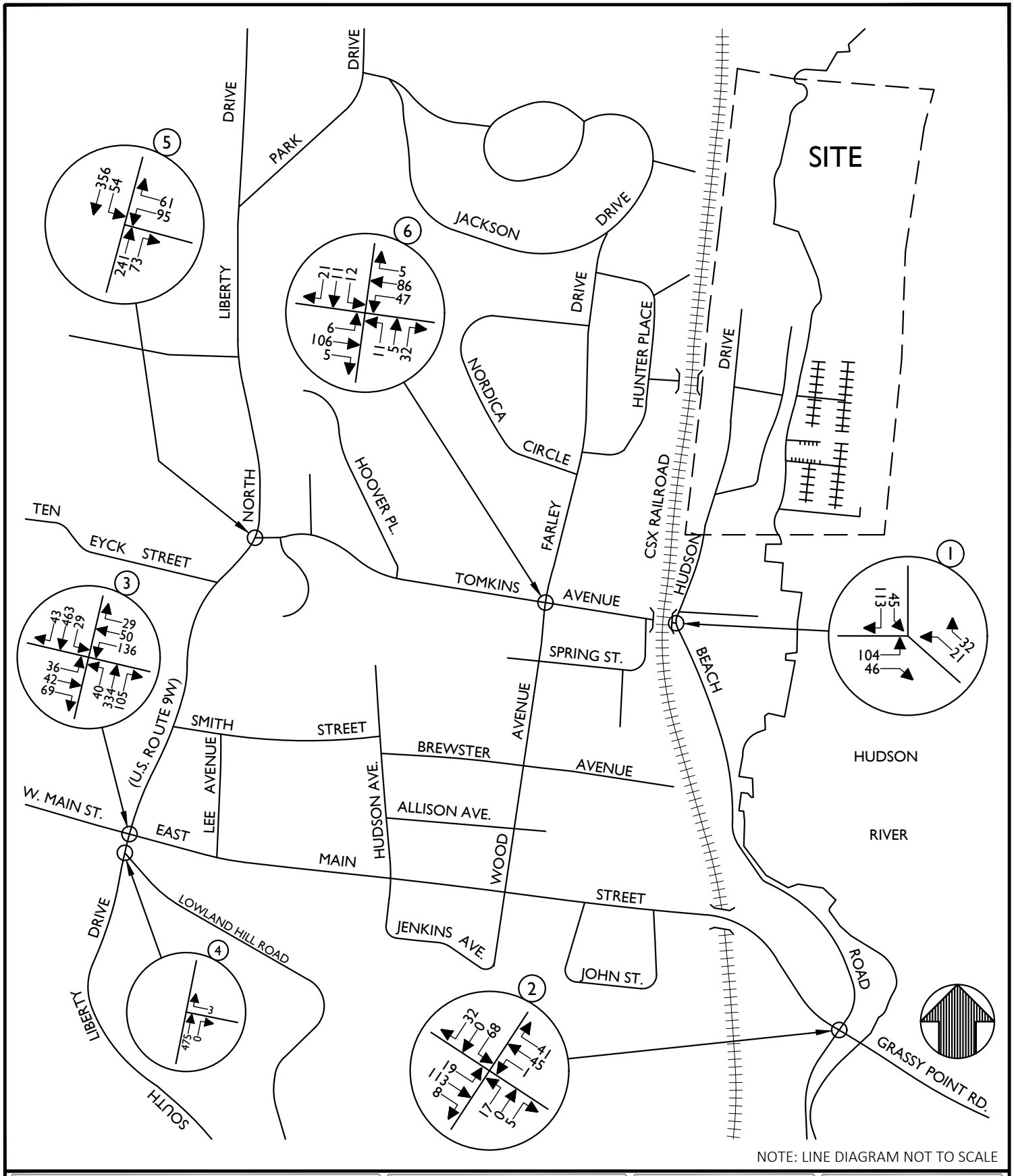
SHEET TITLE:
SENSITIVITY ANALYSIS
SITE GENERATED TRAFFIC VOLUMES
SUMMER SATURDAY PEAK HOUR

SHEET NUMBER:
FIGURE NO. 4-S



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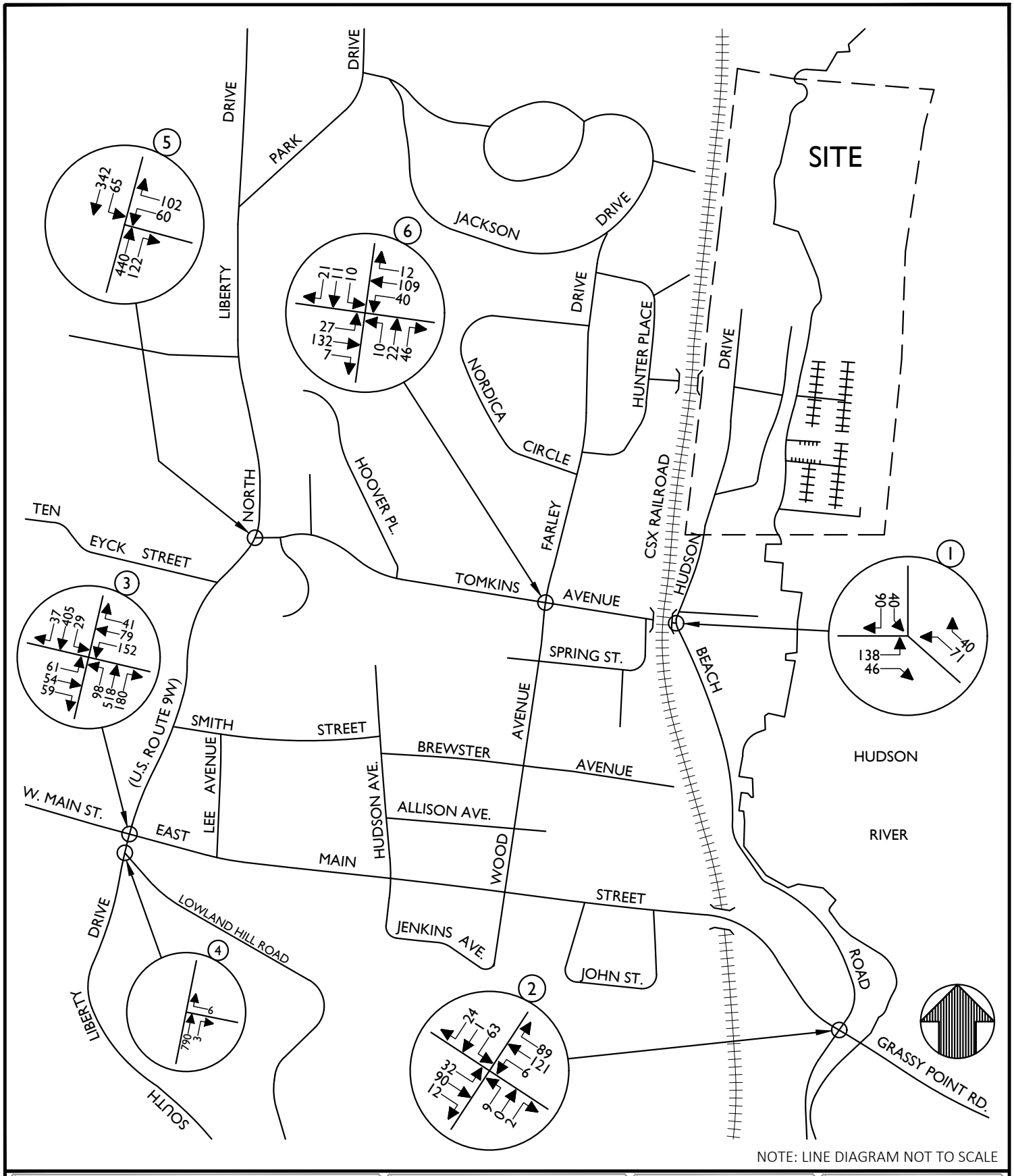
SHEET TITLE:
SENSITIVITY ANALYSIS
YEAR 2023 BUILD TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR

SHEET NUMBER:
FIGURE NO. 5-S



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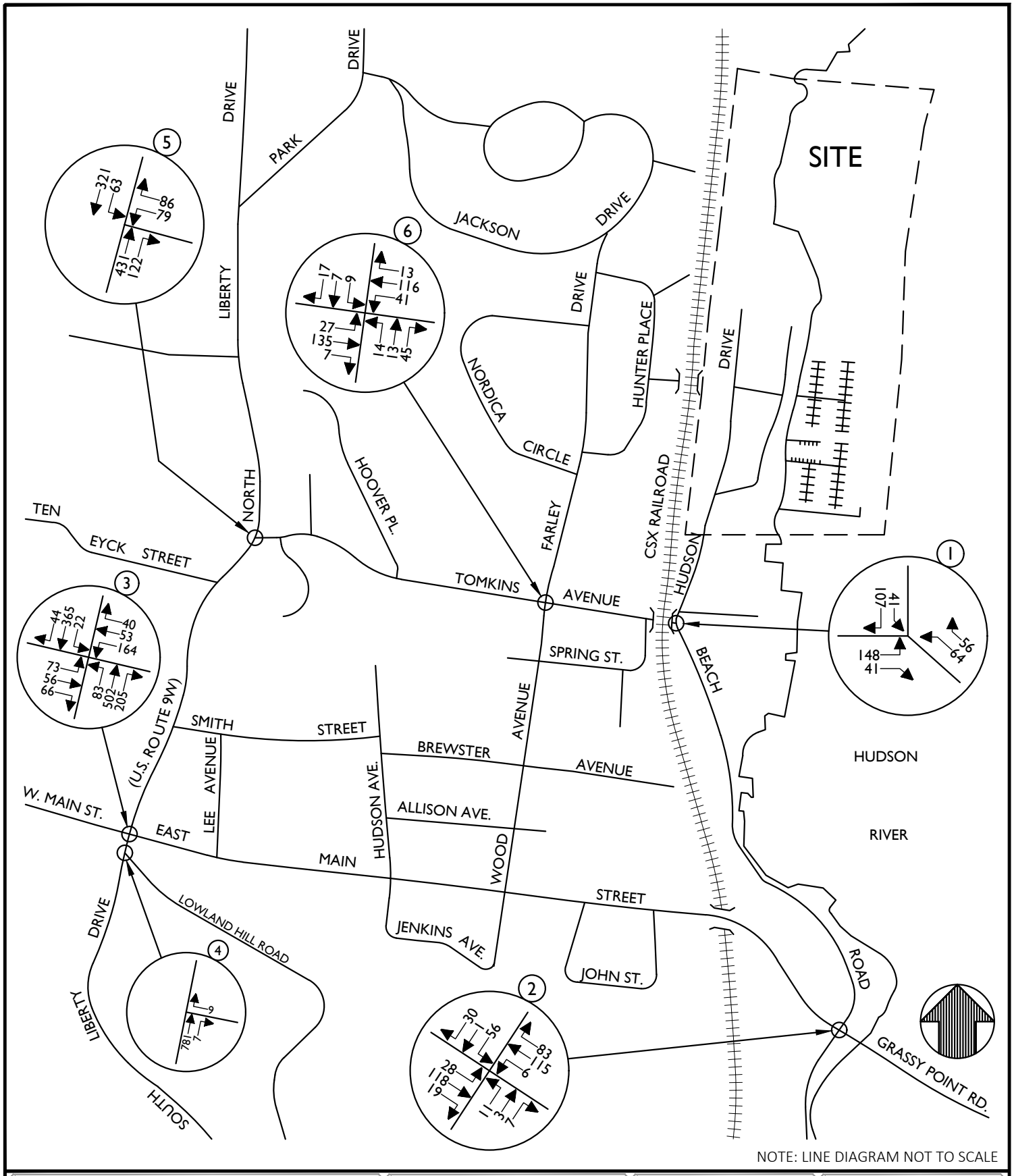
WEEKDAY PEAK PM HOUR

SHEET NUMBER:
FIGURE NO. 6-S



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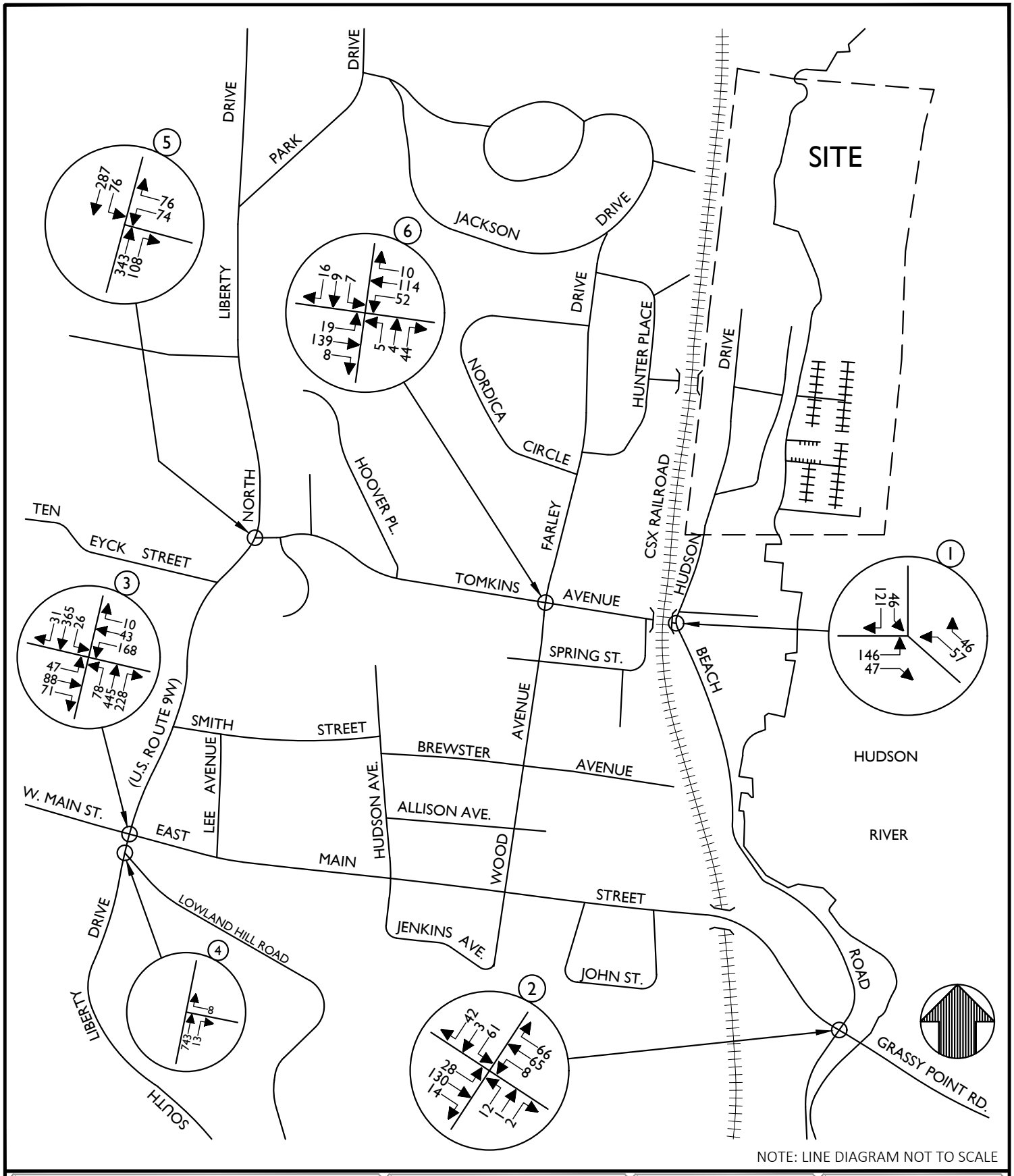
SUMMER FRIDAY PEAK PM HOUR

SHEET NUMBER:
FIGURE NO. 7-S



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SHEET TITLE:
SENSITIVITY ANALYSIS
YEAR 2023 BUILD TRAFFIC VOLUMES
SUMMER SATURDAY PEAK HOUR

SHEET NUMBER:
FIGURE NO. 8-S

TABLE NO. 2-S

LEVEL OF SERVICE SUMMARY TABLE

				2023 NO-BUILD				2023 BUILD			
				AM	PM	SUMMER FRIDAY PM	SUMMER SAT	AM	PM	SUMMER FRIDAY PM	SUMMER SAT
1	TOMKINS AVENUE, BEACH ROAD & HUDSON DRIVE										
	UNSIGNALIZED										
	TOMKINS AVENUE	EB	L-T	A[7.3]	A[7.4]	A[7.4]	A[7.4]	A[7.5]	A[7.8]	A[7.8]	A[7.7]
	HUDSON DRIVE	SB	L-R	A[8.9]	A[9.1]	A[9.0]	A[9.0]	B[10.8]	B[11.3]	B[11.0]	B[11.1]
	W/ ALL-WAY "STOP" SIGN CONTROL										
	TOMKINS AVENUE	EB	L-T	A[7.4]	A[7.3]	A[7.5]	A[7.5]	A[8.9]	A[9.3]	A[9.2]	A[9.3]
	BEACH ROAD	WB	T-R	A[7.6]	A[7.5]	A[7.4]	A[7.3]	A[8.1]	A[8.2]	A[8.0]	A[8.0]
	HUDSON DRIVE	SB	L-R	A[7.2]	A[7.2]	A[7.0]	A[7.0]	A[8.7]	A[8.4]	A[8.4]	A[8.5]
	OVERALL INTERSECTION			**A[7.4]**	**A[7.4]**	**A[7.4]**	**A[7.4]**	**A[8.7]**	**A[8.7]**	**A[8.6]**	**A[8.7]**
2	E. MAIN STREET/GRASSY POINT ROAD & BEACH ROAD										
	UNSIGNALIZED										
	E. MAIN STREET	EB	L-T-R	A[7.8]	A[7.9]	A[7.6]	A[7.5]	A[7.9]	A[8.0]	A[7.7]	A[7.6]
	GRASSY POINT ROAD	WB	L-T-R	A[7.5]	A[7.4]	A[7.5]	A[7.5]	A[7.5]	A[7.4]	A[7.5]	A[7.5]
	BA MAR DRIVE	NB	L-T-R	B[10.5]	B[11.0]	B[10.7]	B[11.0]	B[11.0]	B[11.8]	B[11.3]	B[11.8]
	BEACH ROAD	SB	L-T-R	B[10.7]	B[11.5]	B[10.7]	B[10.0]	A[9.9]	B[11.1]	B[10.2]	A[9.6]
3	U.S. ROUTE 9W & E./W. MAIN STREET										
	SIGNALIZED										
	E. MAIN STREET	EB	L	B[19.9]	C[26.2]	C[26.5]	C[25.7]	C[23.3]	C[31.4]	C[31.7]	C[31.5]
		EB	T-R	C[25.3]	C[32.7]	C[32.0]	C[32.7]	C[29.4]	D[39.5]	D[38.5]	D[40.0]
		EB	**APPROACH**	**C[24.1]**	**C[30.4]**	**C[30.0]**	**C[31.2]**	**C[27.9]**	**D[36.6]**	**D[35.9]**	**D[38.1]**
	W. MAIN STREET	WB	L	B[19.7]	C[25.5]	C[25.8]	C[25.2]	C[22.2]	C[29.9]	C[30.1]	C[29.0]
		WB	T-R	C[22.2]	C[29.4]	C[29.1]	C[26.6]	C[23.9]	C[33.4]	C[33.2]	C[30.4]
		WB	**APPROACH**	**C[20.9]**	**C[27.5]**	**C[27.2]**	**C[25.6]**	**C[22.8]**	**C[31.5]**	**C[31.2]**	**C[29.3]**
	U.S. ROUTE 9W	NB	L	B[13.7]	B[11.8]	B[12.4]	B[11.8]	B[14.6]	B[12.4]	B[13.1]	B[13.0]
		NB	T-R	B[18.8]	C[23.9]	C[28.1]	C[25.2]	C[20.8]	D[36.7]	D[42.6]	D[39.5]
		NB	**APPROACH**	**B[18.3]**	**C[22.3]**	**C[26.3]**	**C[23.7]**	**C[20.3]**	**C[33.7]**	**D[39.5]**	**D[36.8]**
	U.S. ROUTE 9W	SB	L	B[12.6]	B[14.9]	B[16.2]	B[15.3]	B[14.3]	B[18.5]	C[20.1]	B[19.4]
		SB	T-R	B[17.5]	B[15.8]	B[16.3]	B[15.5]	B[18.4]	B[16.6]	B[17.2]	B[17.0]
		SB	**APPROACH**	**B[17.3]**	**B[15.7]**	**B[16.3]**	**B[15.5]**	**B[18.2]**	**B[16.8]**	**B[17.4]**	**B[17.2]**
	OVERALL INTERSECTION			**B[18.8]**	**C[21.9]**	**C[24.1]**	**C[22.6]**	**C[20.7]**	**C[29.0]**	**C[32.1]**	**C[30.7]**
	W/ SIGNAL TIMING CHANGES										
	E. MAIN STREET	EB	L	------	------	------	------	------	C[28.0]	C[29.0]	C[29.3]
		EB	T-R	------	------	------	------	------	D[35.0]	D[35.3]	D[37.3]
		EB	**APPROACH**	------	------	------	------	------	**C[32.6]**	**C[32.9]**	**D[35.5]**
	W. MAIN STREET	WB	L	------	------	------	------	------	C[34.9]	C[33.9]	C[34.6]
		WB	T-R	------	------	------	------	------	C[33.8]	C[33.4]	C[30.3]
		WB	**APPROACH**	------	------	------	------	------	**C[34.4]**	**C[33.7]**	**C[33.5]**
	U.S. ROUTE 9W	NB	L	------	------	------	------	------	B[11.0]	B[11.6]	B[12.0]
		NB	T-R	------	------	------	------	------	C [34.8]	D[36.1]	D[36.0]
		NB	**APPROACH**	------	------	------	------	------	**C[31.9]**	**C[33.6]**	**C[33.5]**
	U.S. ROUTE 9W	SB	L	------	------	------	------	------	B[16.5]	B[17.9]	B[17.9]
		SB	T-R	------	------	------	------	------	B[14.8]	B[15.4]	B[15.8]
		SB	**APPROACH**	------	------	------	------	------	**B[14.9]**	**B[15.6]**	**B[15.9]**
	OVERALL INTERSECTION			------	------	------	------	------	**C[27.7]**	**C[28.9]**	**C[29.1]**
4	U.S. ROUTE 9W & LOWLAND HILL ROAD										
	UNSIGNALIZED										
	LOWLAND HILL ROAD	WB	R	B[11.7]	C[15.9]	C[15.8]	C[15.5]	B[12.4]	C[17.7]	C[17.5]	C[17.0]
5	U.S. ROUTE 9W & TOMKINS AVENUE										
	UNSIGNALIZED										
	U.S. ROUTE 9W	SB	L-T	A[8.1]	A[8.6]	A[8.6]	A[8.4]	A[8.3]	A[8.9]	A[8.9]	A[8.7]
	TOMKINS AVENUE	WB	L-R	C[19.0]	C[19.5]	C[20.4]	C[17.4]	D[25.0]	D[28.9]	D[29.8]	C[24.4]
6	TOMKINS AVENUE & FARLEY DRIVE/WOOD AVENUE										
	UNSIGNALIZED										
	TOMKINS AVENUE	EB	L-T-R	A[7.7]	A[7.7]	A[7.6]	A[7.5]	A[8.6]	A[8.8]	A[8.7]	A[8.6]
	TOMKINS AVENUE	WB	L-T-R	A[7.7]	A[7.9]	A[7.6]	A[7.4]	A[8.9]	A[9.1]	A[8.7]	A[8.7]
	WOOD AVENUE	NB	L-T-R	A[8.2]	A[7.7]	A[7.6]	A[7.3]	A[8.5]	A[8.2]	A[8.0]	A[7.7]
	FARLEY DRIVE	SB	L-T-R	A[7.1]	A[7.7]	A[7.2]	A[7.1]	A[7.7]	A[8.4]	A[7.8]	A[7.8]
	OVERALL INTERSECTION			**A[7.6]**	**A[7.8]**	**A[7.6]**	**A[7.4]**	**A[8.6]**	**A[8.8]**	**A[8.5]**	**A[8.5]**

THE ABOVE REPRESENTS THE LEVELS OF SERVICE AND VEHICLE DELAY IN SECONDS, B [13.2], FOR EACH MOVEMENT, FOR EACH APPROACH AS WELL AS THE OVERALL INTERSECTION FOR THE SIGNALIZED INTERSECTIONS AND THE LEVELS OF SERVICE AND AVERAGE TOTAL DELAY IN SECONDS, B[10.9], FOR THE UNSIGNALIZED INTERSECTIONS.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	104	46	21	32	45	113
Future Volume (vph)	104	46	21	32	45	113
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	12	12	12	11	12
Grade (%)		-3%	0%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.918		0.903	
Flt Protected		0.966			0.986	
Satd. Flow (prot)	0	1824	1450	0	1389	0
Flt Permitted		0.966			0.986	
Satd. Flow (perm)	0	1824	1450	0	1389	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		639	571		286	
Travel Time (s)		14.5	13.0		6.5	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	0%	7%	30%	14%	17%	18%
Adj. Flow (vph)	125	55	25	39	54	136
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	180	64	0	190	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		11	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.12	0.98	1.00	1.00	1.04	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	6.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	104	46	21	32	45	113
Future Vol, veh/h	104	46	21	32	45	113
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, %	-	-3	0	-	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	0	7	30	14	17	18
Mvmt Flow	125	55	25	39	54	136

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	64	0	-	0	350	45
Stage 1	-	-	-	-	45	-
Stage 2	-	-	-	-	305	-
Critical Hdwy	4.1	-	-	-	6.57	6.38
Critical Hdwy Stg 1	-	-	-	-	5.57	-
Critical Hdwy Stg 2	-	-	-	-	5.57	-
Follow-up Hdwy	2.2	-	-	-	3.653	3.462
Pot Cap-1 Maneuver	1551	-	-	-	618	981
Stage 1	-	-	-	-	940	-
Stage 2	-	-	-	-	715	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1551	-	-	-	567	981
Mov Cap-2 Maneuver	-	-	-	-	567	-
Stage 1	-	-	-	-	862	-
Stage 2	-	-	-	-	715	-

Approach	EB	WB	SB
HCM Control Delay, s	5.2	0	10.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1551	-	-	-	812
HCM Lane V/C Ratio	0.081	-	-	-	0.234
HCM Control Delay (s)	7.5	0	-	-	10.8
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.3	-	-	-	0.9

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	113	8	1	45	41	17	0	5	68	0	32
Future Volume (vph)	19	113	8	1	45	41	17	0	5	68	0	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	12	12	12	12	11
Grade (%)		-6%			1%			3%			3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.992			0.936			0.970			0.957	
Flt Protected		0.993						0.963			0.967	
Satd. Flow (prot)	0	1678	0	0	1427	0	0	1670	0	0	1595	0
Flt Permitted		0.993						0.963			0.967	
Satd. Flow (perm)	0	1678	0	0	1427	0	0	1670	0	0	1595	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		504			567			216			341	
Travel Time (s)		11.5			12.9			4.9			7.8	
Confl. Peds. (#/hr)				11		11			11	11		
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	33%	12%	12%	0%	22%	18%	6%	0%	0%	6%	0%	14%
Adj. Flow (vph)	24	141	10	1	56	51	21	0	6	85	0	40
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	175	0	0	108	0	0	27	0	0	125	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.96	0.96	0.96	1.01	1.05	1.01	1.02	1.02	1.02	1.02	1.02	1.07
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	19	113	8	1	45	41	17	0	5	68	0	32
Future Vol, veh/h	19	113	8	1	45	41	17	0	5	68	0	32
Conflicting Peds, #/hr	0	0	0	11	0	11	0	0	11	11	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-6	-	-	1	-	-	3	-	-	3	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	33	12	12	0	22	18	6	0	0	6	0	14
Mvmt Flow	24	141	10	1	56	51	21	0	6	85	0	40

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	118	0	0	162	0	0	289	325	168	303	305	93
Stage 1	-	-	-	-	-	-	205	205	-	95	95	-
Stage 2	-	-	-	-	-	-	84	120	-	208	210	-
Critical Hdwy	4.43	-	-	4.1	-	-	7.76	7.1	6.5	7.76	7.1	6.64
Critical Hdwy Stg 1	-	-	-	-	-	-	6.76	6.1	-	6.76	6.1	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.76	6.1	-	6.76	6.1	-
Follow-up Hdwy	2.497	-	-	2.2	-	-	3.554	4	3.3	3.554	4	3.426
Pot Cap-1 Maneuver	1299	-	-	1429	-	-	624	565	869	610	581	925
Stage 1	-	-	-	-	-	-	761	711	-	888	807	-
Stage 2	-	-	-	-	-	-	901	784	-	758	707	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1285	-	-	1414	-	-	581	542	852	584	558	915
Mov Cap-2 Maneuver	-	-	-	-	-	-	581	542	-	584	558	-
Stage 1	-	-	-	-	-	-	738	690	-	861	798	-
Stage 2	-	-	-	-	-	-	861	775	-	730	686	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.1	0.1	11	9.9
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	626	1285	-	-	1414	-	-	859
HCM Lane V/C Ratio	0.044	0.018	-	-	0.001	-	-	0.146
HCM Control Delay (s)	11	7.9	0	-	7.5	0	-	9.9
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.5

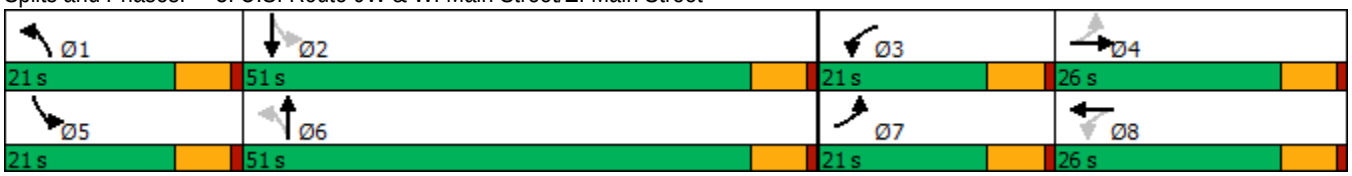
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	42	69	136	50	29	40	334	105	29	463	43
Future Volume (vph)	36	42	69	136	50	29	40	334	105	29	463	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	10	12	11	11	12	12	12	12	12	12	12
Grade (%)		-2%			2%			4%			-2%	
Storage Length (ft)	50		0	150		0	460		0	110		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	86			86			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.907			0.945			0.964			0.987	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1711	1543	0	1645	1530	0	1608	1560	0	1823	1713	0
Flt Permitted	0.701			0.441			0.249			0.327		
Satd. Flow (perm)	1263	1543	0	764	1530	0	421	1560	0	628	1713	0
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					21			15			4	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		414			1841			131			576	
Travel Time (s)		9.4			41.8			3.0			13.1	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	3%	9%	3%	5%	9%	18%	10%	16%	12%	0%	11%	6%
Adj. Flow (vph)	40	46	76	149	55	32	44	367	115	32	509	47
Shared Lane Traffic (%)												
Lane Group Flow (vph)	40	122	0	149	87	0	44	482	0	32	556	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.03	1.08	0.99	1.06	1.06	1.01	1.03	1.03	1.03	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases	4			8			6			2		
Detector Phase	7	4		3	8		1	6		5	2	
Switch Phase												
Minimum Initial (s)	3.0	5.0		3.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	9.0	11.0		9.0	11.0		9.0	16.0		9.0	16.0	
Total Split (s)	21.0	26.0		21.0	26.0		21.0	51.0		21.0	51.0	
Total Split (%)	17.6%	21.8%		17.6%	21.8%		17.6%	42.9%		17.6%	42.9%	
Maximum Green (s)	15.0	20.0		15.0	20.0		15.0	45.0		15.0	45.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		13.0			13.0			14.0			12.0	
Pedestrian Calls (#/hr)		0			9			2			0	
v/c Ratio	0.14	0.52		0.43	0.24		0.15	0.69		0.08	0.74	
Control Delay	23.6	45.9		26.8	26.9		12.5	27.2		11.9	29.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	23.6	45.9		26.8	26.9		12.5	27.2		11.9	29.4	
Queue Length 50th (ft)	15	62		58	30		11	212		8	259	
Queue Length 95th (ft)	42	139		125	83		32	404		25	483	
Internal Link Dist (ft)		334			1761			51			496	
Turn Bay Length (ft)	50			150			460			110		
Base Capacity (vph)	524	455		468	495		479	982		588	1071	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.08	0.27		0.32	0.18		0.09	0.49		0.05	0.52	

Intersection Summary

Area Type: Other
Cycle Length: 119
Actuated Cycle Length: 78.9
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 3: U.S. Route 9W & W. Main Street/E. Main Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	42	69	136	50	29	40	334	105	29	463	43
Future Volume (veh/h)	36	42	69	136	50	29	40	334	105	29	463	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1934	1844	1844	1802	1743	1743	1658	1569	1569	1979	1814	1814
Adj Flow Rate, veh/h	40	46	76	149	55	32	44	367	115	32	509	47
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	9	9	5	9	9	10	16	16	0	11	11
Cap, veh/h	349	66	110	339	169	98	235	418	131	264	629	58
Arrive On Green	0.05	0.11	0.11	0.11	0.16	0.16	0.03	0.36	0.36	0.05	0.38	0.38
Sat Flow, veh/h	1842	625	1033	1717	1034	601	1579	1145	359	1884	1635	151
Grp Volume(v), veh/h	40	0	122	149	0	87	44	0	482	32	0	556
Grp Sat Flow(s),veh/h/ln	1842	0	1658	1717	0	1635	1579	0	1504	1884	0	1786
Q Serve(g_s), s	1.2	0.0	4.5	4.8	0.0	3.0	1.1	0.0	19.2	0.7	0.0	17.8
Cycle Q Clear(g_c), s	1.2	0.0	4.5	4.8	0.0	3.0	1.1	0.0	19.2	0.7	0.0	17.8
Prop In Lane	1.00		0.62	1.00		0.37	1.00		0.24	1.00		0.08
Lane Grp Cap(c), veh/h	349	0	176	339	0	267	235	0	548	264	0	687
V/C Ratio(X)	0.11	0.00	0.69	0.44	0.00	0.33	0.19	0.00	0.88	0.12	0.00	0.81
Avail Cap(c_a), veh/h	688	0	518	558	0	511	564	0	1058	617	0	1257
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.3	0.0	27.6	21.9	0.0	23.7	14.4	0.0	19.0	14.2	0.0	17.6
Incr Delay (d2), s/veh	0.1	0.0	1.8	0.3	0.0	0.3	0.1	0.0	1.9	0.1	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	1.8	1.8	0.0	1.1	0.4	0.0	6.2	0.2	0.0	6.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.3	0.0	29.4	22.2	0.0	23.9	14.6	0.0	20.8	14.3	0.0	18.4
LnGrp LOS	C	A	C	C	A	C	B	A	C	B	A	B
Approach Vol, veh/h		162			236			526			588	
Approach Delay, s/veh		27.9			22.8			20.3			18.2	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.7	30.6	12.8	12.8	9.0	29.3	9.2	16.4
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	15.0	45.0	15.0	20.0	15.0	45.0	15.0	20.0
Max Q Clear Time (g_c+I1), s	3.1	19.8	6.8	6.5	2.7	21.2	3.2	5.0
Green Ext Time (p_c), s	0.0	2.5	0.1	0.3	0.0	2.1	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	20.7
HCM 6th LOS	C

Lane Group	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Volume (vph)	475	0	0	668	0	3
Future Volume (vph)	475	0	0	668	0	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	13	13
Grade (%)	4%			-2%	9%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						0.865
Flt Protected						
Satd. Flow (prot)	1619	0	0	1761	0	1590
Flt Permitted						
Satd. Flow (perm)	1619	0	0	1761	0	1590
Link Speed (mph)	30			30	30	
Link Distance (ft)	694			131	271	
Travel Time (s)	15.8			3.0	6.2	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	15%	2%	0%	9%	0%	2%
Adj. Flow (vph)	522	0	0	734	0	3
Shared Lane Traffic (%)						
Lane Group Flow (vph)	522	0	0	734	0	3
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.03	1.03	0.99	0.99	1.02	1.02
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Vol, veh/h	475	0	0	668	0	3
Future Vol, veh/h	475	0	0	668	0	3
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, %	4	-	-	-2	9	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	15	2	0	9	0	2
Mvmt Flow	522	0	0	734	0	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	522
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.12
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	487
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	487
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	NB	SB	NW
HCM Control Delay, s	0	0	12.4
HCM LOS			B

Minor Lane/Major Mvmt	NBT	NBR	NWLn1	SBT
Capacity (veh/h)	-	-	487	-
HCM Lane V/C Ratio	-	-	0.007	-
HCM Control Delay (s)	-	-	12.4	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	95	61	241	73	54	356
Future Volume (vph)	95	61	241	73	54	356
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	13	12	12	13
Grade (%)	3%		-4%			-3%
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.947		0.969			
Flt Protected	0.970					0.993
Satd. Flow (prot)	1513	0	1698	0	0	1795
Flt Permitted	0.970					0.993
Satd. Flow (perm)	1513	0	1698	0	0	1795
Link Speed (mph)	30		30			30
Link Distance (ft)	291		332			435
Travel Time (s)	6.6		7.5			9.9
Confl. Peds. (#/hr)	3	1		3	1	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	7%	24%	18%	2%	12%	10%
Adj. Flow (vph)	106	68	268	81	60	396
Shared Lane Traffic (%)						
Lane Group Flow (vph)	174	0	349	0	0	456
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.02	1.02	0.93	0.97	0.98	0.94
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	4.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	95	61	241	73	54	356
Future Vol, veh/h	95	61	241	73	54	356
Conflicting Peds, #/hr	3	1	0	3	1	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, %	3	-	-4	-	-	-3
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	7	24	18	2	12	10
Mvmt Flow	106	68	268	81	60	396

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	831	313	0	0	352	0
Stage 1	312	-	-	-	-	-
Stage 2	519	-	-	-	-	-
Critical Hdwy	7.07	6.74	-	-	4.22	-
Critical Hdwy Stg 1	6.07	-	-	-	-	-
Critical Hdwy Stg 2	6.07	-	-	-	-	-
Follow-up Hdwy	3.563	3.516	-	-	2.308	-
Pot Cap-1 Maneuver	290	661	-	-	1153	-
Stage 1	694	-	-	-	-	-
Stage 2	539	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	269	658	-	-	1150	-
Mov Cap-2 Maneuver	269	-	-	-	-	-
Stage 1	692	-	-	-	-	-
Stage 2	501	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	25	0	1.1
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	350	1150	-
HCM Lane V/C Ratio	-	-	0.495	0.052	-
HCM Control Delay (s)	-	-	25	8.3	0
HCM Lane LOS	-	-	D	A	A
HCM 95th %tile Q(veh)	-	-	2.6	0.2	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	106	5	47	86	5	11	5	32	12	11	21
Future Volume (vph)	6	106	5	47	86	5	11	5	32	12	11	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	10	12	12	12	12	12	13	12	12	10	12
Grade (%)		0%			2%			3%			6%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.994			0.995			0.912			0.936	
Flt Protected		0.997			0.983			0.988			0.986	
Satd. Flow (prot)	0	1639	0	0	1488	0	0	1315	0	0	1484	0
Flt Permitted		0.997			0.983			0.988			0.986	
Satd. Flow (perm)	0	1639	0	0	1488	0	0	1315	0	0	1484	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		848			639			544			490	
Travel Time (s)		19.3			14.5			12.4			11.1	
Confl. Peds. (#/hr)	4		1	1		4	1		1	4		4
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	17%	6%	20%	20%	21%	100%	46%	0%	33%	0%	9%	10%
Adj. Flow (vph)	7	120	6	53	98	6	13	6	36	14	13	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	133	0	0	157	0	0	55	0	0	51	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.09	1.00	1.01	1.01	1.01	1.02	0.98	1.02	1.04	1.14	1.04
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

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	6	106	5	47	86	5	11	5	32	12	11	21
Future Vol, veh/h	6	106	5	47	86	5	11	5	32	12	11	21
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	17	6	20	20	21	100	46	0	33	0	9	10
Mvmt Flow	7	120	6	53	98	6	13	6	36	14	13	24
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	8.6	8.9	8.5	7.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	23%	5%	34%	27%
Vol Thru, %	10%	91%	62%	25%
Vol Right, %	67%	4%	4%	48%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	48	117	138	44
LT Vol	11	6	47	12
Through Vol	5	106	86	11
RT Vol	32	5	5	21
Lane Flow Rate	55	133	157	50
Geometry Grp	1	1	1	1
Degree of Util (X)	0.077	0.17	0.204	0.062
Departure Headway (Hd)	5.081	4.608	4.691	4.433
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	706	780	767	809
Service Time	3.104	2.627	2.71	2.455
HCM Lane V/C Ratio	0.078	0.171	0.205	0.062
HCM Control Delay	8.5	8.6	8.9	7.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.6	0.8	0.2

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	138	46	71	40	40	90
Future Volume (vph)	138	46	71	40	40	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	12	12	12	11	12
Grade (%)		-3%	0%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.951		0.907	
Flt Protected		0.964			0.985	
Satd. Flow (prot)	0	1796	1740	0	1641	0
Flt Permitted		0.964			0.985	
Satd. Flow (perm)	0	1796	1740	0	1641	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		639	571		286	
Travel Time (s)		14.5	13.0		6.5	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	0%	14%	6%	0%	0%	0%
Adj. Flow (vph)	164	55	85	48	48	107
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	219	133	0	155	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		11	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.12	0.98	1.00	1.00	1.04	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	138	46	71	40	40	90
Future Vol, veh/h	138	46	71	40	40	90
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, %	-	-3	0	-	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	14	6	0	0	0
Mvmt Flow	164	55	85	48	48	107

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	133	0	-	0	492	109
Stage 1	-	-	-	-	109	-
Stage 2	-	-	-	-	383	-
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	1464	-	-	-	540	950
Stage 1	-	-	-	-	921	-
Stage 2	-	-	-	-	694	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1464	-	-	-	477	950
Mov Cap-2 Maneuver	-	-	-	-	477	-
Stage 1	-	-	-	-	814	-
Stage 2	-	-	-	-	694	-

Approach	EB	WB	SB
HCM Control Delay, s	5.8	0	11.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1464	-	-	-	728
HCM Lane V/C Ratio	0.112	-	-	-	0.213
HCM Control Delay (s)	7.8	0	-	-	11.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.4	-	-	-	0.8

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	90	12	6	121	89	9	0	2	63	1	24
Future Volume (vph)	32	90	12	6	121	89	9	0	2	63	1	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	12	12	12	12	11
Grade (%)		-6%			1%			3%			3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.988			0.944			0.977			0.963	
Flt Protected		0.988			0.999			0.960			0.965	
Satd. Flow (prot)	0	1542	0	0	1622	0	0	1608	0	0	1580	0
Flt Permitted		0.988			0.999			0.960			0.965	
Satd. Flow (perm)	0	1542	0	0	1622	0	0	1608	0	0	1580	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		504			567			216			341	
Travel Time (s)		11.5			12.9			4.9			7.8	
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	18%	28%	8%	0%	9%	3%	11%	0%	0%	14%	0%	0%
Adj. Flow (vph)	36	101	13	7	136	100	10	0	2	71	1	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	150	0	0	243	0	0	12	0	0	99	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.96	0.96	0.96	1.01	1.05	1.01	1.02	1.02	1.02	1.02	1.02	1.07
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	32	90	12	6	121	89	9	0	2	63	1	24
Future Vol, veh/h	32	90	12	6	121	89	9	0	2	63	1	24
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-6	-	-	1	-	-	3	-	-	3	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	18	28	8	0	9	3	11	0	0	14	0	0
Mvmt Flow	36	101	13	7	136	100	10	0	2	71	1	27

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	237	0	0	115	0	0	383	432	110	383	388	188
Stage 1	-	-	-	-	-	-	181	181	-	201	201	-
Stage 2	-	-	-	-	-	-	202	251	-	182	187	-
Critical Hdwy	4.28	-	-	4.1	-	-	7.81	7.1	6.5	7.84	7.1	6.5
Critical Hdwy Stg 1	-	-	-	-	-	-	6.81	6.1	-	6.84	6.1	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.81	6.1	-	6.84	6.1	-
Follow-up Hdwy	2.362	-	-	2.2	-	-	3.599	4	3.3	3.626	4	3.3
Pot Cap-1 Maneuver	1242	-	-	1487	-	-	525	483	940	520	515	846
Stage 1	-	-	-	-	-	-	776	731	-	749	714	-
Stage 2	-	-	-	-	-	-	754	674	-	769	726	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1241	-	-	1486	-	-	492	465	938	504	495	844
Mov Cap-2 Maneuver	-	-	-	-	-	-	492	465	-	504	495	-
Stage 1	-	-	-	-	-	-	751	708	-	725	710	-
Stage 2	-	-	-	-	-	-	724	670	-	743	703	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.9	0.2	11.8	11.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	539	1241	-	-	1486	-	-	693
HCM Lane V/C Ratio	0.023	0.029	-	-	0.005	-	-	0.143
HCM Control Delay (s)	11.8	8	0	-	7.4	0	-	11.1
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.5

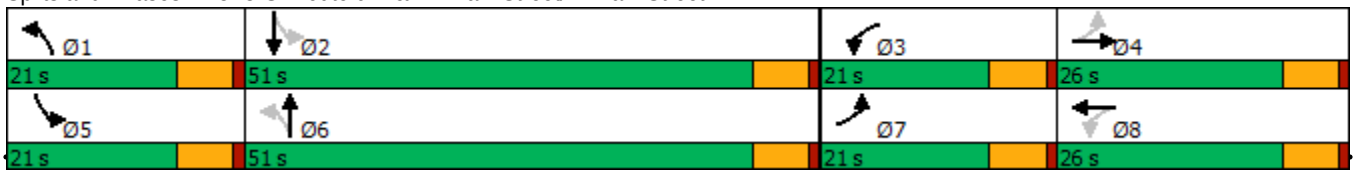
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	61	54	59	152	79	41	98	518	180	29	405	37
Future Volume (vph)	61	54	59	152	79	41	98	518	180	29	405	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	10	12	11	11	12	12	12	12	12	12	12
Grade (%)		-2%			2%			4%			-2%	
Storage Length (ft)	50		0	150		0	460		0	110		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	86			86			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.922			0.949			0.961			0.987	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1728	1539	0	1694	1664	0	1751	1742	0	1585	1860	0
Flt Permitted	0.674			0.488			0.318			0.130		
Satd. Flow (perm)	1226	1539	0	870	1664	0	586	1742	0	217	1860	0
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					19			17			4	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		414			1841			131			576	
Travel Time (s)		9.4			41.8			3.0			13.1	
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 (%)	2%	13%	2%	2%	2%	7%	1%	3%	2%	15%	2%	0%
Adj. Flow (vph)	66	58	63	163	85	44	105	557	194	31	435	40
Shared Lane Traffic (%)												
Lane Group Flow (vph)	66	121	0	163	129	0	105	751	0	31	475	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.03	1.08	0.99	1.06	1.06	1.01	1.03	1.03	1.03	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases	4			8			6			2		
Detector Phase	7	4		3	8		1	6		5	2	
Switch Phase												
Minimum Initial (s)	3.0	5.0		3.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	9.0	11.0		9.0	11.0		9.0	16.0		9.0	16.0	
Total Split (s)	21.0	26.0		21.0	26.0		21.0	51.0		21.0	51.0	
Total Split (%)	17.6%	21.8%		17.6%	21.8%		17.6%	42.9%		17.6%	42.9%	
Maximum Green (s)	15.0	20.0		15.0	20.0		15.0	45.0		15.0	45.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		13.0			13.0			14.0			12.0	
Pedestrian Calls (#/hr)		0			9			2			0	
v/c Ratio	0.23	0.63		0.46	0.38		0.26	0.87		0.16	0.57	
Control Delay	26.5	55.4		29.6	33.9		12.7	37.2		13.4	25.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	26.5	55.4		29.6	33.9		12.7	37.2		13.4	25.4	
Queue Length 50th (ft)	30	73		79	62		28	425		8	215	
Queue Length 95th (ft)	62	138		134	122		64	#799		25	391	
Internal Link Dist (ft)		334			1761			51			496	
Turn Bay Length (ft)	50			150			460			110		
Base Capacity (vph)	429	334		401	387		518	861		343	911	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.15	0.36		0.41	0.33		0.20	0.87		0.09	0.52	

Intersection Summary

Area Type: Other
Cycle Length: 119
Actuated Cycle Length: 93.9
Natural Cycle: 75
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: U.S. Route 9W & W. Main Street/E. Main Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	54	59	152	79	41	98	518	180	29	405	37
Future Volume (veh/h)	61	54	59	152	79	41	98	518	180	29	405	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1949	1784	1784	1847	1847	1847	1791	1761	1761	1754	1949	1949
Adj Flow Rate, veh/h	66	58	63	163	85	44	105	557	194	31	435	40
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
Percent Heavy Veh, %	2	13	13	2	2	2	1	3	3	15	2	2
Cap, veh/h	296	78	84	306	172	89	420	592	206	179	805	74
Arrive On Green	0.06	0.10	0.10	0.11	0.15	0.15	0.05	0.47	0.47	0.04	0.46	0.46
Sat Flow, veh/h	1856	782	849	1759	1146	593	1706	1248	435	1670	1758	162
Grp Volume(v), veh/h	66	0	121	163	0	129	105	0	751	31	0	475
Grp Sat Flow(s),veh/h/ln	1856	0	1631	1759	0	1740	1706	0	1683	1670	0	1920
Q Serve(g_s), s	2.6	0.0	6.1	6.8	0.0	5.7	2.7	0.0	35.7	0.8	0.0	15.0
Cycle Q Clear(g_c), s	2.6	0.0	6.1	6.8	0.0	5.7	2.7	0.0	35.7	0.8	0.0	15.0
Prop In Lane	1.00		0.52	1.00		0.34	1.00		0.26	1.00		0.08
Lane Grp Cap(c), veh/h	296	0	162	306	0	261	420	0	798	179	0	879
V/C Ratio(X)	0.22	0.00	0.75	0.53	0.00	0.49	0.25	0.00	0.94	0.17	0.00	0.54
Avail Cap(c_a), veh/h	523	0	387	433	0	413	635	0	899	417	0	1025
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.2	0.0	36.9	29.4	0.0	32.9	12.3	0.0	21.0	18.3	0.0	16.4
Incr Delay (d2), s/veh	0.1	0.0	2.6	0.5	0.0	0.5	0.1	0.0	15.7	0.2	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	2.5	2.8	0.0	2.4	1.0	0.0	16.2	0.3	0.0	6.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.4	0.0	39.5	29.9	0.0	33.4	12.4	0.0	36.7	18.5	0.0	16.6
LnGrp LOS	C	A	D	C	A	C	B	A	D	B	A	B
Approach Vol, veh/h		187			292			856			506	
Approach Delay, s/veh		36.6			31.5			33.7			16.8	
Approach LOS		D			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	44.6	14.9	14.4	9.0	46.0	10.7	18.6
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	15.0	45.0	15.0	20.0	15.0	45.0	15.0	20.0
Max Q Clear Time (g_c+I1), s	4.7	17.0	8.8	8.1	2.8	37.7	4.6	7.7
Green Ext Time (p_c), s	0.1	2.0	0.1	0.3	0.0	2.3	0.0	0.3

Intersection Summary	
HCM 6th Ctrl Delay	29.0
HCM 6th LOS	C

Lane Group	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Volume (vph)	790	3	0	616	0	6
Future Volume (vph)	790	3	0	616	0	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	13	13
Grade (%)	4%			-2%	9%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						0.865
Flt Protected						
Satd. Flow (prot)	1808	0	0	1881	0	1590
Flt Permitted						
Satd. Flow (perm)	1808	0	0	1881	0	1590
Link Speed (mph)	30			30	30	
Link Distance (ft)	694			131	271	
Travel Time (s)	15.8			3.0	6.2	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	3%	2%	0%	2%	0%	2%
Adj. Flow (vph)	849	3	0	662	0	6
Shared Lane Traffic (%)						
Lane Group Flow (vph)	852	0	0	662	0	6
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.03	1.03	0.99	0.99	1.02	1.02
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.1

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Vol, veh/h	790	3	0	616	0	6
Future Vol, veh/h	790	3	0	616	0	6
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, %	4	-	-	-2	9	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	3	2	0	2	0	2
Mvmt Flow	849	3	0	662	0	6

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	851
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.12
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	291
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	291
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	NB	SB	NW
HCM Control Delay, s	0	0	17.7
HCM LOS			C

Minor Lane/Major Mvmt	NBT	NBR	NWLn1	SBT
Capacity (veh/h)	-	-	291	-
HCM Lane V/C Ratio	-	-	0.022	-
HCM Control Delay (s)	-	-	17.7	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0.1	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	60	102	440	122	65	342
Future Volume (vph)	60	102	440	122	65	342
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	13	12	12	13
Grade (%)	3%		-4%			-3%
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.915		0.971			
Flt Protected	0.982					0.992
Satd. Flow (prot)	1669	0	1900	0	0	1928
Flt Permitted	0.982					0.992
Satd. Flow (perm)	1669	0	1900	0	0	1928
Link Speed (mph)	30		30			30
Link Distance (ft)	291		332			435
Travel Time (s)	6.6		7.5			9.9
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	0%	3%	0%	0%	3%
Adj. Flow (vph)	65	110	473	131	70	368
Shared Lane Traffic (%)						
Lane Group Flow (vph)	175	0	604	0	0	438
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.02	1.02	0.93	0.97	0.98	0.94
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	4.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	60	102	440	122	65	342
Future Vol, veh/h	60	102	440	122	65	342
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, %	3	-	-4	-	-	-3
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	0	3	0	0	3
Mvmt Flow	65	110	473	131	70	368

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1047	539	0	0	604	0
Stage 1	539	-	-	-	-	-
Stage 2	508	-	-	-	-	-
Critical Hdwy	7.02	6.5	-	-	4.1	-
Critical Hdwy Stg 1	6.02	-	-	-	-	-
Critical Hdwy Stg 2	6.02	-	-	-	-	-
Follow-up Hdwy	3.518	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	212	522	-	-	984	-
Stage 1	534	-	-	-	-	-
Stage 2	555	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	193	522	-	-	984	-
Mov Cap-2 Maneuver	193	-	-	-	-	-
Stage 1	534	-	-	-	-	-
Stage 2	506	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	28.9	0	1.4
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	320	984	-
HCM Lane V/C Ratio	-	-	0.544	0.071	-
HCM Control Delay (s)	-	-	28.9	8.9	0
HCM Lane LOS	-	-	D	A	A
HCM 95th %tile Q(veh)	-	-	3.1	0.2	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	132	7	40	109	12	10	22	46	10	11	21
Future Volume (vph)	27	132	7	40	109	12	10	22	46	10	11	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	10	12	12	12	12	12	13	12	12	10	12
Grade (%)		0%			2%			3%			6%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.995			0.990			0.920			0.934	
Flt Protected		0.992			0.988			0.993			0.988	
Satd. Flow (prot)	0	1598	0	0	1699	0	0	1504	0	0	1462	0
Flt Permitted		0.992			0.988			0.993			0.988	
Satd. Flow (perm)	0	1598	0	0	1699	0	0	1504	0	0	1462	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		848			639			544			490	
Travel Time (s)		19.3			14.5			12.4			11.1	
Confl. Peds. (#/hr)	1		2	1			2		1			1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	4%	9%	43%	17%	6%	0%	10%	5%	25%	25%	0%	5%
Adj. Flow (vph)	29	140	7	43	116	13	11	23	49	11	12	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	176	0	0	172	0	0	83	0	0	45	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.09	1.00	1.01	1.01	1.01	1.02	0.98	1.02	1.04	1.14	1.04
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	27	132	7	40	109	12	10	22	46	10	11	21
Future Vol, veh/h	27	132	7	40	109	12	10	22	46	10	11	21
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	4	9	43	17	6	0	10	5	25	25	0	5
Mvmt Flow	29	140	7	43	116	13	11	23	49	11	12	22
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	9.1	8.2	8.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	13%	16%	25%	24%
Vol Thru, %	28%	80%	68%	26%
Vol Right, %	59%	4%	7%	50%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	78	166	161	42
LT Vol	10	27	40	10
Through Vol	22	132	109	11
RT Vol	46	7	12	21
Lane Flow Rate	83	177	171	45
Geometry Grp	1	1	1	1
Degree of Util (X)	0.106	0.22	0.223	0.062
Departure Headway (Hd)	4.612	4.482	4.697	4.991
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	777	802	766	718
Service Time	2.641	2.504	2.721	3.022
HCM Lane V/C Ratio	0.107	0.221	0.223	0.063
HCM Control Delay	8.2	8.8	9.1	8.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.8	0.9	0.2

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	148	41	64	56	41	107
Future Volume (vph)	148	41	64	56	41	107
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	12	12	12	11	12
Grade (%)		-3%	0%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.937		0.903	
Flt Protected		0.962			0.986	
Satd. Flow (prot)	0	1819	1745	0	1603	0
Flt Permitted		0.962			0.986	
Satd. Flow (perm)	0	1819	1745	0	1603	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		639	571		286	
Travel Time (s)		14.5	13.0		6.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	161	45	70	61	45	116
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	206	131	0	161	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		11	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.12	0.98	1.00	1.00	1.04	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	6.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	148	41	64	56	41	107
Future Vol, veh/h	148	41	64	56	41	107
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, %	-	-3	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	161	45	70	61	45	116

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	131	0	-	0	468	101
Stage 1	-	-	-	-	101	-
Stage 2	-	-	-	-	367	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1454	-	-	-	553	954
Stage 1	-	-	-	-	923	-
Stage 2	-	-	-	-	701	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1454	-	-	-	490	954
Mov Cap-2 Maneuver	-	-	-	-	490	-
Stage 1	-	-	-	-	818	-
Stage 2	-	-	-	-	701	-

Approach	EB	WB	SB
HCM Control Delay, s	6.1	0	11
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1454	-	-	-	756
HCM Lane V/C Ratio	0.111	-	-	-	0.213
HCM Control Delay (s)	7.8	0	-	-	11
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.4	-	-	-	0.8

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	28	118	19	6	115	83	11	3	7	56	1	30
Future Volume (vph)	28	118	19	6	115	83	11	3	7	56	1	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	12	12	12	12	11
Grade (%)		-6%			1%			3%			3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.985			0.945			0.953			0.954	
Flt Protected		0.992			0.999			0.975			0.969	
Satd. Flow (prot)	0	1912	0	0	1716	0	0	1739	0	0	1730	0
Flt Permitted		0.992			0.999			0.975			0.969	
Satd. Flow (perm)	0	1912	0	0	1716	0	0	1739	0	0	1730	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		504			567			216			341	
Travel Time (s)		11.5			12.9			4.9			7.8	
Confl. Peds. (#/hr)			1	1					7	7		
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%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	30	127	20	6	124	89	12	3	8	60	1	32
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	177	0	0	219	0	0	23	0	0	93	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.96	0.96	0.96	1.01	1.05	1.01	1.02	1.02	1.02	1.02	1.02	1.07
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	28	118	19	6	115	83	11	3	7	56	1	30
Future Vol, veh/h	28	118	19	6	115	83	11	3	7	56	1	30
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	7	7	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-6	-	-	1	-	-	3	-	-	3	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	30	127	20	6	124	89	12	3	8	60	1	32

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	213	0	0	148	0	0	379	423	145	391	389	169
Stage 1	-	-	-	-	-	-	198	198	-	181	181	-
Stage 2	-	-	-	-	-	-	181	225	-	210	208	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.7	7.1	6.5	7.7	7.1	6.5
Critical Hdwy Stg 1	-	-	-	-	-	-	6.7	6.1	-	6.7	6.1	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.7	6.1	-	6.7	6.1	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1369	-	-	1446	-	-	547	490	897	536	515	868
Stage 1	-	-	-	-	-	-	782	717	-	801	731	-
Stage 2	-	-	-	-	-	-	801	695	-	769	709	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1369	-	-	1445	-	-	514	475	891	514	500	868
Mov Cap-2 Maneuver	-	-	-	-	-	-	514	475	-	514	500	-
Stage 1	-	-	-	-	-	-	762	699	-	782	727	-
Stage 2	-	-	-	-	-	-	766	692	-	736	691	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.3	0.2	11.3	10.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	590	1369	-	-	1445	-	-	784
HCM Lane V/C Ratio	0.038	0.022	-	-	0.004	-	-	0.119
HCM Control Delay (s)	11.3	7.7	0	-	7.5	0	-	10.2
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.4

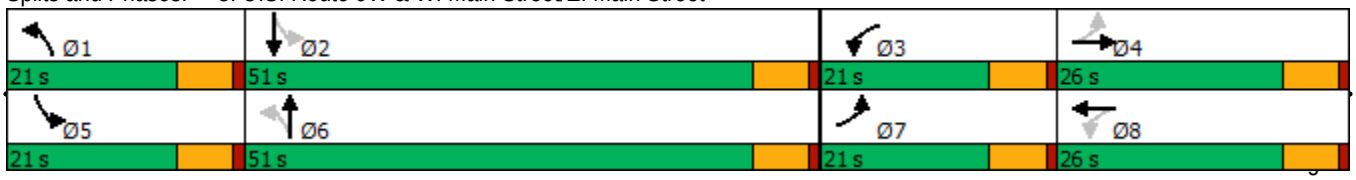
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	73	56	66	164	53	40	83	502	205	22	365	44
Future Volume (vph)	73	56	66	164	53	40	83	502	205	22	365	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	10	12	11	11	12	12	12	12	12	12	12
Grade (%)		-2%			2%			4%			-2%	
Storage Length (ft)	50		0	150		0	460		0	110		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	86			86			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.98				0.98			0.99				
Frt		0.919			0.935			0.957			0.984	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1728	1620	0	1710	1558	0	1769	1727	0	1688	1808	0
Flt Permitted	0.693			0.473			0.345			0.141		
Satd. Flow (perm)	1231	1620	0	852	1558	0	642	1727	0	251	1808	0
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					28			20			6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		414			1841			131			576	
Travel Time (s)		9.4			41.8			3.0			13.1	
Confl. Peds. (#/hr)	9					9			2	2		
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	0%	3%	1%	3%	12%	0%	3%	1%	8%	5%	0%
Adj. Flow (vph)	78	60	70	174	56	43	88	534	218	23	388	47
Shared Lane Traffic (%)												
Lane Group Flow (vph)	78	130	0	174	99	0	88	752	0	23	435	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.03	1.08	0.99	1.06	1.06	1.01	1.03	1.03	1.03	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases	4			8			6			2		
Detector Phase	7	4		3	8		1	6		5	2	
Switch Phase												
Minimum Initial (s)	3.0	5.0		3.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	9.0	11.0		9.0	11.0		9.0	16.0		9.0	16.0	
Total Split (s)	21.0	26.0		21.0	26.0		21.0	51.0		21.0	51.0	
Total Split (%)	17.6%	21.8%		17.6%	21.8%		17.6%	42.9%		17.6%	42.9%	
Maximum Green (s)	15.0	20.0		15.0	20.0		15.0	45.0		15.0	45.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		13.0			13.0			14.0			12.0	
Pedestrian Calls (#/hr)		0			9			2			0	
v/c Ratio	0.26	0.63		0.48	0.30		0.21	0.86		0.11	0.55	
Control Delay	25.5	53.0		28.7	28.2		12.4	34.1		12.8	24.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	25.5	53.0		28.7	28.2		12.4	34.1		12.8	24.9	
Queue Length 50th (ft)	29	67		69	33		22	305		6	183	
Queue Length 95th (ft)	70	145		141	90		55	#793		20	347	
Internal Link Dist (ft)		334			1761			51			496	
Turn Bay Length (ft)	50			150			460			110		
Base Capacity (vph)	441	362		412	377		540	877		378	911	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.18	0.36		0.42	0.26		0.16	0.86		0.06	0.48	

Intersection Summary

Area Type: Other
Cycle Length: 119
Actuated Cycle Length: 91.2
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: U.S. Route 9W & W. Main Street/E. Main Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	56	66	164	53	40	83	502	205	22	365	44
Future Volume (veh/h)	73	56	66	164	53	40	83	502	205	22	365	44
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.96	0.98		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1949	1979	1979	1862	1832	1832	1806	1761	1761	1859	1904	1904
Adj Flow Rate, veh/h	78	60	70	174	56	43	88	534	218	23	388	47
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	0	0	1	3	3	0	3	3	8	5	5
Cap, veh/h	343	99	116	333	161	124	429	560	228	167	766	93
Arrive On Green	0.06	0.12	0.12	0.11	0.17	0.17	0.04	0.47	0.47	0.03	0.46	0.46
Sat Flow, veh/h	1856	814	950	1773	949	729	1720	1188	485	1770	1665	202
Grp Volume(v), veh/h	78	0	130	174	0	99	88	0	752	23	0	435
Grp Sat Flow(s),veh/h/ln	1856	0	1765	1773	0	1677	1720	0	1673	1770	0	1867
Q Serve(g_s), s	3.2	0.0	6.3	7.5	0.0	4.7	2.4	0.0	38.8	0.6	0.0	14.7
Cycle Q Clear(g_c), s	3.2	0.0	6.3	7.5	0.0	4.7	2.4	0.0	38.8	0.6	0.0	14.7
Prop In Lane	1.00		0.54	1.00		0.43	1.00		0.29	1.00		0.11
Lane Grp Cap(c), veh/h	343	0	215	333	0	285	429	0	788	167	0	859
V/C Ratio(X)	0.23	0.00	0.61	0.52	0.00	0.35	0.21	0.00	0.95	0.14	0.00	0.51
Avail Cap(c_a), veh/h	544	0	392	439	0	373	640	0	837	403	0	934
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.5	0.0	37.4	29.7	0.0	32.9	13.0	0.0	22.8	19.9	0.0	17.1
Incr Delay (d2), s/veh	0.1	0.0	1.0	0.5	0.0	0.3	0.1	0.0	19.8	0.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	2.7	3.2	0.0	1.9	0.9	0.0	18.4	0.2	0.0	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.7	0.0	38.5	30.1	0.0	33.2	13.1	0.0	42.6	20.1	0.0	17.2
LnGrp LOS	C	A	D	C	A	C	B	A	D	C	A	B
Approach Vol, veh/h		208			273			840			458	
Approach Delay, s/veh		35.9			31.2			39.5			17.4	
Approach LOS		D			C			D			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	47.4	15.6	16.9	9.0	48.4	11.3	21.3
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	15.0	45.0	15.0	20.0	15.0	45.0	15.0	20.0
Max Q Clear Time (g_c+I1), s	4.4	16.7	9.5	8.3	2.6	40.8	5.2	6.7
Green Ext Time (p_c), s	0.1	1.9	0.1	0.3	0.0	1.5	0.1	0.2

Intersection Summary	
HCM 6th Ctrl Delay	32.1
HCM 6th LOS	C

Lane Group	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Volume (vph)	781	7	0	595	0	9
Future Volume (vph)	781	7	0	595	0	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	13	13
Grade (%)	4%			-2%	9%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.999					0.865
Flt Protected						
Satd. Flow (prot)	1824	0	0	1845	0	1590
Flt Permitted						
Satd. Flow (perm)	1824	0	0	1845	0	1590
Link Speed (mph)	30			30	30	
Link Distance (ft)	694			131	271	
Travel Time (s)	15.8			3.0	6.2	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	2%	0%	4%	0%	2%
Adj. Flow (vph)	831	7	0	633	0	10
Shared Lane Traffic (%)						
Lane Group Flow (vph)	838	0	0	633	0	10
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.03	1.03	0.99	0.99	1.02	1.02
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.1

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Vol, veh/h	781	7	0	595	0	9
Future Vol, veh/h	781	7	0	595	0	9
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, %	4	-	-	-2	9	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	0	4	0	2
Mvmt Flow	831	7	0	633	0	10

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	835
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.12
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	298
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	298
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	NWLn1	SBT
Capacity (veh/h)	-	-	298	-
HCM Lane V/C Ratio	-	-	0.032	-
HCM Control Delay (s)	-	-	17.5	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0.1	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	79	86	431	122	63	321
Future Volume (vph)	79	86	431	122	63	321
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	13	12	12	13
Grade (%)	3%		-4%			-3%
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.929		0.970			
Flt Protected	0.977					0.992
Satd. Flow (prot)	1642	0	1872	0	0	1868
Flt Permitted	0.977					0.992
Satd. Flow (perm)	1642	0	1872	0	0	1868
Link Speed (mph)	30		30			30
Link Distance (ft)	291		332			435
Travel Time (s)	6.6		7.5			9.9
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	5%	2%	4%	3%	5%	6%
Adj. Flow (vph)	82	90	449	127	66	334
Shared Lane Traffic (%)						
Lane Group Flow (vph)	172	0	576	0	0	400
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.02	1.02	0.93	0.97	0.98	0.94
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	79	86	431	122	63	321
Future Vol, veh/h	79	86	431	122	63	321
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, %	3	-	-4	-	-	-3
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	5	2	4	3	5	6
Mvmt Flow	82	90	449	127	66	334

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	979	513	0	0	576	0
Stage 1	513	-	-	-	-	-
Stage 2	466	-	-	-	-	-
Critical Hdwy	7.05	6.52	-	-	4.15	-
Critical Hdwy Stg 1	6.05	-	-	-	-	-
Critical Hdwy Stg 2	6.05	-	-	-	-	-
Follow-up Hdwy	3.545	3.318	-	-	2.245	-
Pot Cap-1 Maneuver	233	538	-	-	983	-
Stage 1	546	-	-	-	-	-
Stage 2	579	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	214	538	-	-	983	-
Mov Cap-2 Maneuver	214	-	-	-	-	-
Stage 1	546	-	-	-	-	-
Stage 2	532	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	29.8	0	1.5
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	312	983	-
HCM Lane V/C Ratio	-	-	0.551	0.067	-
HCM Control Delay (s)	-	-	29.8	8.9	0
HCM Lane LOS	-	-	D	A	A
HCM 95th %tile Q(veh)	-	-	3.1	0.2	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	135	7	41	116	13	14	13	45	9	7	17
Future Volume (vph)	27	135	7	41	116	13	14	13	45	9	7	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	10	12	12	12	12	12	13	12	12	10	12
Grade (%)		0%			2%			3%			6%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.994			0.990			0.916			0.931	
Flt Protected		0.992			0.988			0.990			0.987	
Satd. Flow (prot)	0	1738	0	0	1827	0	0	1754	0	0	1533	0
Flt Permitted		0.992			0.988			0.990			0.987	
Satd. Flow (perm)	0	1738	0	0	1827	0	0	1754	0	0	1533	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		848			639			544			490	
Travel Time (s)		19.3			14.5			12.4			11.1	
Confl. Peds. (#/hr)			3	3			3		3			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	14%	0%	1%	0%	0%	0%	0%	0%	0%	6%
Adj. Flow (vph)	30	150	8	46	129	14	16	14	50	10	8	19
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	188	0	0	189	0	0	80	0	0	37	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.09	1.00	1.01	1.01	1.01	1.02	0.98	1.02	1.04	1.14	1.04
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

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	27	135	7	41	116	13	14	13	45	9	7	17
Future Vol, veh/h	27	135	7	41	116	13	14	13	45	9	7	17
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	0	0	14	0	1	0	0	0	0	0	0	6
Mvmt Flow	30	150	8	46	129	14	16	14	50	10	8	19
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	8.7	8.7	8	7.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	19%	16%	24%	27%
Vol Thru, %	18%	80%	68%	21%
Vol Right, %	62%	4%	8%	52%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	72	169	170	33
LT Vol	14	27	41	9
Through Vol	13	135	116	7
RT Vol	45	7	13	17
Lane Flow Rate	80	188	189	37
Geometry Grp	1	1	1	1
Degree of Util (X)	0.099	0.228	0.229	0.047
Departure Headway (Hd)	4.446	4.375	4.369	4.582
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	806	822	824	781
Service Time	2.472	2.396	2.391	2.61
HCM Lane V/C Ratio	0.099	0.229	0.229	0.047
HCM Control Delay	8	8.7	8.7	7.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.9	0.9	0.1

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	146	47	57	46	46	121
Future Volume (vph)	146	47	57	46	46	121
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	12	12	12	11	12
Grade (%)		-3%	0%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.940		0.902	
Flt Protected		0.964			0.986	
Satd. Flow (prot)	0	1823	1751	0	1601	0
Flt Permitted		0.964			0.986	
Satd. Flow (perm)	0	1823	1751	0	1601	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		639	571		286	
Travel Time (s)		14.5	13.0		6.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	159	51	62	50	50	132
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	210	112	0	182	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		11	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.12	0.98	1.00	1.00	1.04	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	6.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	146	47	57	46	46	121
Future Vol, veh/h	146	47	57	46	46	121
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, %	-	-3	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	159	51	62	50	50	132

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	112	0	-	0	456	87
Stage 1	-	-	-	-	87	-
Stage 2	-	-	-	-	369	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1478	-	-	-	562	971
Stage 1	-	-	-	-	936	-
Stage 2	-	-	-	-	699	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1478	-	-	-	500	971
Mov Cap-2 Maneuver	-	-	-	-	500	-
Stage 1	-	-	-	-	832	-
Stage 2	-	-	-	-	699	-

Approach	EB	WB	SB
HCM Control Delay, s	5.8	0	11.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1478	-	-	-	771
HCM Lane V/C Ratio	0.107	-	-	-	0.235
HCM Control Delay (s)	7.7	0	-	-	11.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.4	-	-	-	0.9

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	28	130	14	8	65	66	12	1	2	61	3	42
Future Volume (vph)	28	130	14	8	65	66	12	1	2	61	3	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	12	12	12	12	11
Grade (%)		-6%			1%			3%			3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.989			0.936			0.984			0.946	
Flt Protected		0.992			0.997			0.960			0.972	
Satd. Flow (prot)	0	1920	0	0	1705	0	0	1768	0	0	1721	0
Flt Permitted		0.992			0.997			0.960			0.972	
Satd. Flow (perm)	0	1920	0	0	1705	0	0	1768	0	0	1721	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		504			567			216			341	
Travel Time (s)		11.5			12.9			4.9			7.8	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	33	151	16	9	76	77	14	1	2	71	3	49
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	200	0	0	162	0	0	17	0	0	123	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.96	0.96	0.96	1.01	1.05	1.01	1.02	1.02	1.02	1.02	1.02	1.07
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	28	130	14	8	65	66	12	1	2	61	3	42
Future Vol, veh/h	28	130	14	8	65	66	12	1	2	61	3	42
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-6	-	-	1	-	-	3	-	-	3	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	33	151	16	9	76	77	14	1	2	71	3	49

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	153	0	0	167	0	0	359	396	159	360	366	115
Stage 1	-	-	-	-	-	-	225	225	-	133	133	-
Stage 2	-	-	-	-	-	-	134	171	-	227	233	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.7	7.1	6.5	7.7	7.1	6.5
Critical Hdwy Stg 1	-	-	-	-	-	-	6.7	6.1	-	6.7	6.1	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.7	6.1	-	6.7	6.1	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1440	-	-	1423	-	-	565	509	880	564	532	934
Stage 1	-	-	-	-	-	-	753	695	-	856	773	-
Stage 2	-	-	-	-	-	-	855	740	-	751	688	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1440	-	-	1423	-	-	520	493	880	548	515	934
Mov Cap-2 Maneuver	-	-	-	-	-	-	520	493	-	548	515	-
Stage 1	-	-	-	-	-	-	734	678	-	835	768	-
Stage 2	-	-	-	-	-	-	801	735	-	729	671	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.2	0.4	11.8	9.6
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	548	1440	-	-	1423	-	-	905
HCM Lane V/C Ratio	0.032	0.023	-	-	0.007	-	-	0.136
HCM Control Delay (s)	11.8	7.6	0	-	7.5	0	-	9.6
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.5

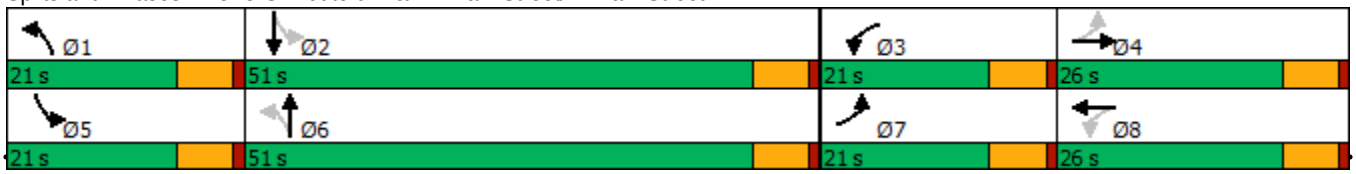
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	88	71	168	43	10	78	445	228	26	365	31
Future Volume (vph)	47	88	71	168	43	10	78	445	228	26	365	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	10	12	11	11	12	12	12	12	12	12	12
Grade (%)		-2%			2%			4%			-2%	
Storage Length (ft)	50		0	150		0	460		0	110		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	86			86			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.933			0.972			0.949			0.988	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1762	1671	0	1727	1767	0	1769	1744	0	1823	1862	0
Flt Permitted	0.719			0.392			0.347			0.121		
Satd. Flow (perm)	1334	1671	0	713	1767	0	646	1744	0	232	1862	0
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					9			25			4	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		414			1841			131			576	
Travel Time (s)		9.4			41.8			3.0			13.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	2%	0%
Adj. Flow (vph)	51	96	77	183	47	11	85	484	248	28	397	34
Shared Lane Traffic (%)												
Lane Group Flow (vph)	51	173	0	183	58	0	85	732	0	28	431	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.03	1.08	0.99	1.06	1.06	1.01	1.03	1.03	1.03	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases	4			8			6			2		
Detector Phase	7	4		3	8		1	6		5	2	
Switch Phase												
Minimum Initial (s)	3.0	5.0		3.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	9.0	11.0		9.0	11.0		9.0	16.0		9.0	16.0	
Total Split (s)	21.0	26.0		21.0	26.0		21.0	51.0		21.0	51.0	
Total Split (%)	17.6%	21.8%		17.6%	21.8%		17.6%	42.9%		17.6%	42.9%	
Maximum Green (s)	15.0	20.0		15.0	20.0		15.0	45.0		15.0	45.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		13.0			13.0			14.0			12.0	
Pedestrian Calls (#/hr)		0			9			2			0	
v/c Ratio	0.16	0.71		0.51	0.13		0.20	0.87		0.14	0.53	
Control Delay	24.8	57.4		29.9	28.8		13.3	37.9		13.8	25.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	24.8	57.4		29.9	28.8		13.3	37.9		13.8	25.3	
Queue Length 50th (ft)	23	109		89	26		24	429		8	201	
Queue Length 95th (ft)	50	186		147	62		55	#770		24	347	
Internal Link Dist (ft)		334			1761			51			496	
Turn Bay Length (ft)	50			150			460			110		
Base Capacity (vph)	468	353		395	455		529	842		377	887	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.11	0.49		0.46	0.13		0.16	0.87		0.07	0.49	

Intersection Summary

Area Type: Other
Cycle Length: 119
Actuated Cycle Length: 96.4
Natural Cycle: 75
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: U.S. Route 9W & W. Main Street/E. Main Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	88	71	168	43	10	78	445	228	26	365	31
Future Volume (veh/h)	47	88	71	168	43	10	78	445	228	26	365	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1979	1979	1979	1876	1876	1876	1806	1776	1776	1979	1949	1949
Adj Flow Rate, veh/h	51	96	77	183	47	11	85	484	248	28	397	34
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	2	2	0	2	2
Cap, veh/h	339	121	97	312	269	63	430	513	263	182	803	69
Arrive On Green	0.05	0.12	0.12	0.11	0.18	0.18	0.04	0.46	0.46	0.03	0.45	0.45
Sat Flow, veh/h	1884	1017	815	1787	1470	344	1720	1107	567	1884	1770	152
Grp Volume(v), veh/h	51	0	173	183	0	58	85	0	732	28	0	431
Grp Sat Flow(s),veh/h/ln	1884	0	1832	1787	0	1814	1720	0	1674	1884	0	1921
Q Serve(g_s), s	2.0	0.0	8.1	7.5	0.0	2.4	2.3	0.0	36.6	0.7	0.0	13.9
Cycle Q Clear(g_c), s	2.0	0.0	8.1	7.5	0.0	2.4	2.3	0.0	36.6	0.7	0.0	13.9
Prop In Lane	1.00		0.45	1.00		0.19	1.00		0.34	1.00		0.08
Lane Grp Cap(c), veh/h	339	0	218	312	0	332	430	0	775	182	0	872
V/C Ratio(X)	0.15	0.00	0.79	0.59	0.00	0.17	0.20	0.00	0.94	0.15	0.00	0.49
Avail Cap(c_a), veh/h	574	0	418	421	0	414	650	0	858	439	0	985
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.4	0.0	37.6	28.3	0.0	30.3	12.9	0.0	22.5	19.2	0.0	16.9
Incr Delay (d2), s/veh	0.1	0.0	2.5	0.7	0.0	0.1	0.1	0.0	17.0	0.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	3.7	3.2	0.0	1.0	0.8	0.0	16.9	0.3	0.0	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.5	0.0	40.0	29.0	0.0	30.4	13.0	0.0	39.5	19.4	0.0	17.0
LnGrp LOS	C	A	D	C	A	C	B	A	D	B	A	B
Approach Vol, veh/h		224			241			817			459	
Approach Delay, s/veh		38.1			29.3			36.8			17.2	
Approach LOS		D			C			D			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.8	45.8	15.6	16.5	9.0	46.6	10.1	22.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	15.0	45.0	15.0	20.0	15.0	45.0	15.0	20.0
Max Q Clear Time (g_c+I1), s	4.3	15.9	9.5	10.1	2.7	38.6	4.0	4.4
Green Ext Time (p_c), s	0.1	1.8	0.1	0.4	0.0	2.0	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	30.7
HCM 6th LOS	C

Lane Group	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Volume (vph)	743	13	0	604	0	8
Future Volume (vph)	743	13	0	604	0	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	13	13
Grade (%)	4%			-2%	9%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.998					0.865
Flt Protected						
Satd. Flow (prot)	1840	0	0	1900	0	1590
Flt Permitted						
Satd. Flow (perm)	1840	0	0	1900	0	1590
Link Speed (mph)	30			30	30	
Link Distance (ft)	694			131	271	
Travel Time (s)	15.8			3.0	6.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	2%	0%	1%	0%	2%
Adj. Flow (vph)	808	14	0	657	0	9
Shared Lane Traffic (%)						
Lane Group Flow (vph)	822	0	0	657	0	9
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.03	1.03	0.99	0.99	1.02	1.02
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.1

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Vol, veh/h	743	13	0	604	0	8
Future Vol, veh/h	743	13	0	604	0	8
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, %	4	-	-	-2	9	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	2	0	1	0	2
Mvmt Flow	808	14	0	657	0	9

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	815
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.12
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	308
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	308
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	NB	SB	NW
HCM Control Delay, s	0	0	17
HCM LOS			C

Minor Lane/Major Mvmt	NBT	NBR	NWLn1	SBT
Capacity (veh/h)	-	-	308	-
HCM Lane V/C Ratio	-	-	0.028	-
HCM Control Delay (s)	-	-	17	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0.1	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	74	76	343	108	76	287
Future Volume (vph)	74	76	343	108	76	287
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	13	12	12	13
Grade (%)	3%		-4%			-3%
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.931		0.968			
Flt Protected	0.976					0.990
Satd. Flow (prot)	1701	0	1901	0	0	1930
Flt Permitted	0.976					0.990
Satd. Flow (perm)	1701	0	1901	0	0	1930
Link Speed (mph)	30		30			30
Link Distance (ft)	291		332			435
Travel Time (s)	6.6		7.5			9.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	2%	2%	3%	2%
Adj. Flow (vph)	80	83	373	117	83	312
Shared Lane Traffic (%)						
Lane Group Flow (vph)	163	0	490	0	0	395
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.02	1.02	0.93	0.97	0.98	0.94
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	4.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	74	76	343	108	76	287
Future Vol, veh/h	74	76	343	108	76	287
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, %	3	-	-4	-	-	-3
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	2	2	3	2
Mvmt Flow	80	83	373	117	83	312

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	910	432	0	0	490	0
Stage 1	432	-	-	-	-	-
Stage 2	478	-	-	-	-	-
Critical Hdwy	7	6.5	-	-	4.13	-
Critical Hdwy Stg 1	6	-	-	-	-	-
Critical Hdwy Stg 2	6	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.227	-
Pot Cap-1 Maneuver	264	606	-	-	1068	-
Stage 1	613	-	-	-	-	-
Stage 2	580	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	239	606	-	-	1068	-
Mov Cap-2 Maneuver	239	-	-	-	-	-
Stage 1	613	-	-	-	-	-
Stage 2	525	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	24.4	0	1.8
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	345	1068	-
HCM Lane V/C Ratio	-	-	0.473	0.077	-
HCM Control Delay (s)	-	-	24.4	8.7	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	2.4	0.3	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	139	8	52	114	10	5	4	44	7	9	16
Future Volume (vph)	19	139	8	52	114	10	5	4	44	7	9	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	10	12	12	12	12	12	13	12	12	10	12
Grade (%)		0%			2%			3%			6%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.994			0.993			0.889			0.932	
Flt Protected		0.994			0.985			0.995			0.989	
Satd. Flow (prot)	0	1723	0	0	1840	0	0	1711	0	0	1586	0
Flt Permitted		0.994			0.985			0.995			0.989	
Satd. Flow (perm)	0	1723	0	0	1840	0	0	1711	0	0	1586	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		848			639			544			490	
Travel Time (s)		19.3			14.5			12.4			11.1	
Confl. Peds. (#/hr)	1					1				1		1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	22	158	9	59	130	11	6	5	50	8	10	18
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	189	0	0	200	0	0	61	0	0	36	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.09	1.00	1.01	1.01	1.01	1.02	0.98	1.02	1.04	1.14	1.04
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

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	19	139	8	52	114	10	5	4	44	7	9	16
Future Vol, veh/h	19	139	8	52	114	10	5	4	44	7	9	16
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	0	2	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	22	158	9	59	130	11	6	5	50	8	10	18
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	8.6	8.7	7.7	7.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	9%	11%	30%	22%
Vol Thru, %	8%	84%	65%	28%
Vol Right, %	83%	5%	6%	50%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	53	166	176	32
LT Vol	5	19	52	7
Through Vol	4	139	114	9
RT Vol	44	8	10	16
Lane Flow Rate	60	189	200	36
Geometry Grp	1	1	1	1
Degree of Util (X)	0.072	0.226	0.241	0.046
Departure Headway (Hd)	4.324	4.322	4.34	4.576
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	830	834	830	784
Service Time	2.344	2.337	2.355	2.598
HCM Lane V/C Ratio	0.072	0.227	0.241	0.046
HCM Control Delay	7.7	8.6	8.7	7.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.9	0.9	0.1

TOMKINS AVENUE / BEACH ROAD / HUDSON DRIVE

W/ ALL WAY STOP CONTROL

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	104	46	21	32	45	113
Future Volume (vph)	104	46	21	32	45	113
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	12	12	12	11	12
Grade (%)		-3%	0%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.918		0.903	
Flt Protected		0.966			0.986	
Satd. Flow (prot)	0	1824	1450	0	1389	0
Flt Permitted		0.966			0.986	
Satd. Flow (perm)	0	1824	1450	0	1389	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		639	571		286	
Travel Time (s)		14.5	13.0		6.5	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	0%	7%	30%	14%	17%	18%
Adj. Flow (vph)	125	55	25	39	54	136
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	180	64	0	190	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		11	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.12	0.98	1.00	1.00	1.04	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Stop	Stop		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	104	46	21	32	45	113
Future Vol, veh/h	104	46	21	32	45	113
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	0	7	30	14	17	18
Mvmt Flow	125	55	25	39	54	136
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	8.9	8.1	8.7
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	69%	0%	28%
Vol Thru, %	31%	40%	0%
Vol Right, %	0%	60%	72%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	150	53	158
LT Vol	104	0	45
Through Vol	46	21	0
RT Vol	0	32	113
Lane Flow Rate	181	64	190
Geometry Grp	1	1	1
Degree of Util (X)	0.229	0.083	0.232
Departure Headway (Hd)	4.555	4.696	4.394
Convergence, Y/N	Yes	Yes	Yes
Cap	790	764	819
Service Time	2.574	2.72	2.413
HCM Lane V/C Ratio	0.229	0.084	0.232
HCM Control Delay	8.9	8.1	8.7
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.9	0.3	0.9

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	138	46	71	40	40	90
Future Volume (vph)	138	46	71	40	40	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	12	12	12	11	12
Grade (%)		-3%	0%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.951		0.907	
Flt Protected		0.964			0.985	
Satd. Flow (prot)	0	1796	1740	0	1641	0
Flt Permitted		0.964			0.985	
Satd. Flow (perm)	0	1796	1740	0	1641	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		639	571		286	
Travel Time (s)		14.5	13.0		6.5	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	0%	14%	6%	0%	0%	0%
Adj. Flow (vph)	164	55	85	48	48	107
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	219	133	0	155	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		11	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.12	0.98	1.00	1.00	1.04	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Stop	Stop		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	138	46	71	40	40	90
Future Vol, veh/h	138	46	71	40	40	90
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles, %	0	14	6	0	0	0
Mvmt Flow	164	55	85	48	48	107
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	9.3	8.2	8.4
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	75%	0%	31%
Vol Thru, %	25%	64%	0%
Vol Right, %	0%	36%	69%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	184	111	130
LT Vol	138	0	40
Through Vol	46	71	0
RT Vol	0	40	90
Lane Flow Rate	219	132	155
Geometry Grp	1	1	1
Degree of Util (X)	0.276	0.161	0.187
Departure Headway (Hd)	4.543	4.381	4.343
Convergence, Y/N	Yes	Yes	Yes
Cap	791	819	826
Service Time	2.566	2.406	2.367
HCM Lane V/C Ratio	0.277	0.161	0.188
HCM Control Delay	9.3	8.2	8.4
HCM Lane LOS	A	A	A
HCM 95th-tile Q	1.1	0.6	0.7

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	148	41	64	56	41	107
Future Volume (vph)	148	41	64	56	41	107
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	12	12	12	11	12
Grade (%)		-3%	0%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.937		0.903	
Flt Protected		0.962			0.986	
Satd. Flow (prot)	0	1819	1745	0	1603	0
Flt Permitted		0.962			0.986	
Satd. Flow (perm)	0	1819	1745	0	1603	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		639	571		286	
Travel Time (s)		14.5	13.0		6.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	161	45	70	61	45	116
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	206	131	0	161	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		11	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.12	0.98	1.00	1.00	1.04	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Stop	Stop		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	8.6
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	148	41	64	56	41	107
Future Vol, veh/h	148	41	64	56	41	107
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	161	45	70	61	45	116
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	9.2	8	8.4
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	78%	0%	28%
Vol Thru, %	22%	53%	0%
Vol Right, %	0%	47%	72%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	189	120	148
LT Vol	148	0	41
Through Vol	41	64	0
RT Vol	0	56	107
Lane Flow Rate	205	130	161
Geometry Grp	1	1	1
Degree of Util (X)	0.262	0.154	0.193
Departure Headway (Hd)	4.589	4.248	4.315
Convergence, Y/N	Yes	Yes	Yes
Cap	783	844	832
Service Time	2.613	2.273	2.338
HCM Lane V/C Ratio	0.262	0.154	0.194
HCM Control Delay	9.2	8	8.4
HCM Lane LOS	A	A	A
HCM 95th-tile Q	1	0.5	0.7

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	146	47	57	46	46	121
Future Volume (vph)	146	47	57	46	46	121
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	12	12	12	11	12
Grade (%)		-3%	0%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.940		0.902	
Flt Protected		0.964			0.986	
Satd. Flow (prot)	0	1823	1751	0	1601	0
Flt Permitted		0.964			0.986	
Satd. Flow (perm)	0	1823	1751	0	1601	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		639	571		286	
Travel Time (s)		14.5	13.0		6.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	159	51	62	50	50	132
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	210	112	0	182	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		11	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.12	0.98	1.00	1.00	1.04	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Stop	Stop		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	146	47	57	46	46	121
Future Vol, veh/h	146	47	57	46	46	121
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	159	51	62	50	50	132
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	9.3	8	8.5
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	76%	0%	28%
Vol Thru, %	24%	55%	0%
Vol Right, %	0%	45%	72%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	193	103	167
LT Vol	146	0	46
Through Vol	47	57	0
RT Vol	0	46	121
Lane Flow Rate	210	112	182
Geometry Grp	1	1	1
Degree of Util (X)	0.269	0.134	0.216
Departure Headway (Hd)	4.613	4.314	4.293
Convergence, Y/N	Yes	Yes	Yes
Cap	780	832	837
Service Time	2.636	2.339	2.315
HCM Lane V/C Ratio	0.269	0.135	0.217
HCM Control Delay	9.3	8	8.5
HCM Lane LOS	A	A	A
HCM 95th-tile Q	1.1	0.5	0.8

U.S. ROUTE 9W & E/W MAIN STREET

W/ SIGNAL TIMING CHANGES

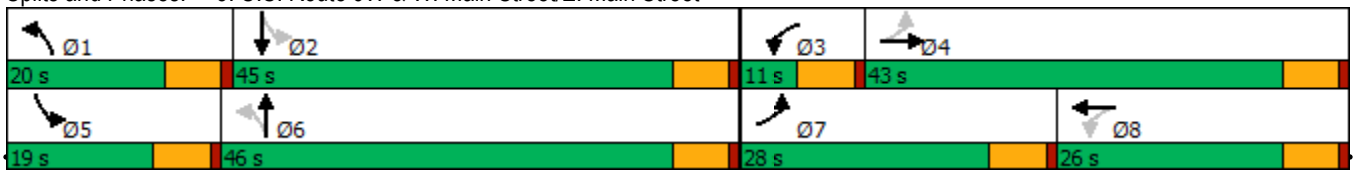
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	61	54	59	152	79	41	98	518	180	29	405	37
Future Volume (vph)	61	54	59	152	79	41	98	518	180	29	405	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	10	12	11	11	12	12	12	12	12	12	12
Grade (%)		-2%			2%			4%			-2%	
Storage Length (ft)	50		0	150		0	460		0	110		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	86			86			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.922			0.949			0.961			0.987	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1728	1539	0	1694	1664	0	1751	1742	0	1585	1860	0
Flt Permitted	0.632			0.679			0.322			0.134		
Satd. Flow (perm)	1149	1539	0	1210	1664	0	594	1742	0	224	1860	0
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					19			16			4	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		414			1841			131			576	
Travel Time (s)		9.4			41.8			3.0			13.1	
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 (%)	2%	13%	2%	2%	2%	7%	1%	3%	2%	15%	2%	0%
Adj. Flow (vph)	66	58	63	163	85	44	105	557	194	31	435	40
Shared Lane Traffic (%)												
Lane Group Flow (vph)	66	121	0	163	129	0	105	751	0	31	475	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.03	1.08	0.99	1.06	1.06	1.01	1.03	1.03	1.03	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases	4			8			6			2		
Detector Phase	7	4		3	8		1	6		5	2	
Switch Phase												
Minimum Initial (s)	3.0	5.0		3.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	9.0	11.0		9.0	11.0		9.0	16.0		9.0	16.0	
Total Split (s)	28.0	43.0		11.0	26.0		20.0	46.0		19.0	45.0	
Total Split (%)	23.5%	36.1%		9.2%	21.8%		16.8%	38.7%		16.0%	37.8%	
Maximum Green (s)	22.0	37.0		5.0	20.0		14.0	40.0		13.0	39.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		13.0			13.0			14.0			12.0	
Pedestrian Calls (#/hr)		0			9			2			0	
v/c Ratio	0.20	0.51		0.58	0.46		0.25	0.87		0.15	0.58	
Control Delay	24.7	41.2		37.1	35.8		11.2	35.2		11.8	23.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	24.7	41.2		37.1	35.8		11.2	35.2		11.8	23.4	
Queue Length 50th (ft)	27	62		72	58		23	364		6	185	
Queue Length 95th (ft)	60	118		129	120		61	#762		24	371	
Internal Link Dist (ft)		334			1761			51			496	
Turn Bay Length (ft)	50			150			460			110		
Base Capacity (vph)	507	691		280	418		533	860		340	887	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.13	0.18		0.58	0.31		0.20	0.87		0.09	0.54	

Intersection Summary

Area Type: Other
Cycle Length: 119
Actuated Cycle Length: 84.2
Natural Cycle: 75
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: U.S. Route 9W & W. Main Street/E. Main Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	54	59	152	79	41	98	518	180	29	405	37
Future Volume (veh/h)	61	54	59	152	79	41	98	518	180	29	405	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1949	1784	1784	1847	1847	1847	1791	1761	1761	1754	1949	1949
Adj Flow Rate, veh/h	66	58	63	163	85	44	105	557	194	31	435	40
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
Percent Heavy Veh, %	2	13	13	2	2	2	1	3	3	15	2	2
Cap, veh/h	256	81	88	251	128	66	435	593	207	195	812	75
Arrive On Green	0.06	0.10	0.10	0.07	0.11	0.11	0.05	0.48	0.48	0.04	0.46	0.46
Sat Flow, veh/h	1856	782	849	1759	1146	593	1706	1248	435	1670	1758	162
Grp Volume(v), veh/h	66	0	121	163	0	129	105	0	751	31	0	475
Grp Sat Flow(s),veh/h/ln	1856	0	1631	1759	0	1740	1706	0	1683	1670	0	1920
Q Serve(g_s), s	2.3	0.0	5.5	5.0	0.0	5.4	2.4	0.0	32.2	0.7	0.0	13.5
Cycle Q Clear(g_c), s	2.3	0.0	5.5	5.0	0.0	5.4	2.4	0.0	32.2	0.7	0.0	13.5
Prop In Lane	1.00		0.52	1.00		0.34	1.00		0.26	1.00		0.08
Lane Grp Cap(c), veh/h	256	0	170	251	0	195	435	0	800	195	0	886
V/C Ratio(X)	0.26	0.00	0.71	0.65	0.00	0.66	0.24	0.00	0.94	0.16	0.00	0.54
Avail Cap(c_a), veh/h	685	0	794	251	0	458	660	0	886	415	0	985
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.8	0.0	33.0	30.3	0.0	32.4	10.9	0.0	18.9	16.3	0.0	14.6
Incr Delay (d2), s/veh	0.2	0.0	2.1	4.6	0.0	1.4	0.1	0.0	15.9	0.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	2.2	0.8	0.0	2.3	0.8	0.0	14.7	0.2	0.0	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.0	0.0	35.0	34.9	0.0	33.8	11.0	0.0	34.8	16.5	0.0	14.8
LnGrp LOS	C	A	D	C	A	C	B	A	C	B	A	B
Approach Vol, veh/h		187			292			856			506	
Approach Delay, s/veh		32.6			34.4			31.9			14.9	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	41.1	11.0	13.9	9.0	42.1	10.4	14.5
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	14.0	39.0	5.0	37.0	13.0	40.0	22.0	20.0
Max Q Clear Time (g_c+I1), s	4.4	15.5	7.0	7.5	2.7	34.2	4.3	7.4
Green Ext Time (p_c), s	0.1	2.0	0.0	0.5	0.0	2.0	0.1	0.3

Intersection Summary	
HCM 6th Ctrl Delay	27.7
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	73	56	66	164	53	40	83	502	205	22	365	44
Future Volume (vph)	73	56	66	164	53	40	83	502	205	22	365	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	10	12	11	11	12	12	12	12	12	12	12
Grade (%)		-2%			2%			4%			-2%	
Storage Length (ft)	50		0	150		0	460		0	110		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	86			86			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.98				0.98			0.99				
Frt		0.919			0.935			0.957			0.984	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1728	1620	0	1710	1565	0	1769	1727	0	1688	1808	0
Flt Permitted	0.678			0.674			0.363			0.168		
Satd. Flow (perm)	1209	1620	0	1213	1565	0	676	1727	0	299	1808	0
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					28			20			6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		414			1841			131			576	
Travel Time (s)		9.4			41.8			3.0			13.1	
Confl. Peds. (#/hr)	9					9			2	2		
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	0%	3%	1%	3%	11%	0%	3%	1%	8%	5%	0%
Adj. Flow (vph)	78	60	70	174	56	43	88	534	218	23	388	47
Shared Lane Traffic (%)												
Lane Group Flow (vph)	78	130	0	174	99	0	88	752	0	23	435	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.03	1.08	0.99	1.06	1.06	1.01	1.03	1.03	1.03	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases	4			8			6			2		
Detector Phase	7	4		3	8		1	6		5	2	
Switch Phase												
Minimum Initial (s)	3.0	5.0		2.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	9.0	11.0		9.0	11.0		9.0	16.0		9.0	16.0	
Total Split (s)	22.0	36.0		12.0	26.0		20.0	51.0		20.0	51.0	
Total Split (%)	18.5%	30.3%		10.1%	21.8%		16.8%	42.9%		16.8%	42.9%	
Maximum Green (s)	16.0	30.0		6.0	20.0		14.0	45.0		14.0	45.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		13.0			13.0			14.0			12.0	
Pedestrian Calls (#/hr)		0			9			2			0	
v/c Ratio	0.24	0.56		0.60	0.37		0.19	0.82		0.10	0.52	
Control Delay	25.9	44.4		37.6	31.4		10.5	28.7		10.8	21.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	25.9	44.4		37.6	31.4		10.5	28.7		10.8	21.7	
Queue Length 50th (ft)	29	62		69	33		19	257		5	161	
Queue Length 95th (ft)	70	130		141	91		53	#769		19	334	
Internal Link Dist (ft)		334			1761			51			496	
Turn Bay Length (ft)	50			150			460			110		
Base Capacity (vph)	441	569		290	388		567	919		398	955	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.18	0.23		0.60	0.26		0.16	0.82		0.06	0.46	

Intersection Summary

Area Type: Other
Cycle Length: 119
Actuated Cycle Length: 86.9
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: U.S. Route 9W & W. Main Street/E. Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	56	66	164	53	40	83	502	205	22	365	44
Future Volume (veh/h)	73	56	66	164	53	40	83	502	205	22	365	44
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.96	0.98		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1949	1979	1979	1862	1832	1832	1806	1761	1761	1859	1904	1904
Adj Flow Rate, veh/h	78	60	70	174	56	43	88	534	218	23	388	47
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	0	0	1	3	3	0	3	3	8	5	5
Cap, veh/h	308	103	120	283	130	100	447	568	232	187	782	95
Arrive On Green	0.06	0.13	0.13	0.07	0.14	0.14	0.04	0.48	0.48	0.04	0.47	0.47
Sat Flow, veh/h	1856	815	951	1773	946	726	1720	1188	485	1770	1665	202
Grp Volume(v), veh/h	78	0	130	174	0	99	88	0	752	23	0	435
Grp Sat Flow(s),veh/h/ln	1856	0	1766	1773	0	1672	1720	0	1673	1770	0	1867
Q Serve(g_s), s	3.0	0.0	5.8	6.0	0.0	4.5	2.2	0.0	35.5	0.5	0.0	13.4
Cycle Q Clear(g_c), s	3.0	0.0	5.8	6.0	0.0	4.5	2.2	0.0	35.5	0.5	0.0	13.4
Prop In Lane	1.00		0.54	1.00		0.43	1.00		0.29	1.00		0.11
Lane Grp Cap(c), veh/h	308	0	222	283	0	230	447	0	800	187	0	877
V/C Ratio(X)	0.25	0.00	0.59	0.61	0.00	0.43	0.20	0.00	0.94	0.12	0.00	0.50
Avail Cap(c_a), veh/h	552	0	636	283	0	401	660	0	903	421	0	1008
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.9	0.0	34.4	31.0	0.0	32.9	11.6	0.0	20.6	17.8	0.0	15.3
Incr Delay (d2), s/veh	0.2	0.0	0.9	2.9	0.0	0.5	0.1	0.0	15.5	0.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	2.5	0.6	0.0	1.8	0.8	0.0	16.0	0.2	0.0	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.0	0.0	35.3	33.9	0.0	33.4	11.6	0.0	36.1	17.9	0.0	15.4
LnGrp LOS	C	A	D	C	A	C	B	A	D	B	A	B
Approach Vol, veh/h		208			273			840			458	
Approach Delay, s/veh		32.9			33.7			33.6			15.6	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.7	45.2	12.0	16.5	9.0	45.8	11.0	17.5
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	14.0	45.0	6.0	30.0	14.0	45.0	16.0	20.0
Max Q Clear Time (g_c+I1), s	4.2	15.4	8.0	7.8	2.5	37.5	5.0	6.5
Green Ext Time (p_c), s	0.1	1.9	0.0	0.4	0.0	2.3	0.1	0.2

Intersection Summary	
HCM 6th Ctrl Delay	28.9
HCM 6th LOS	C

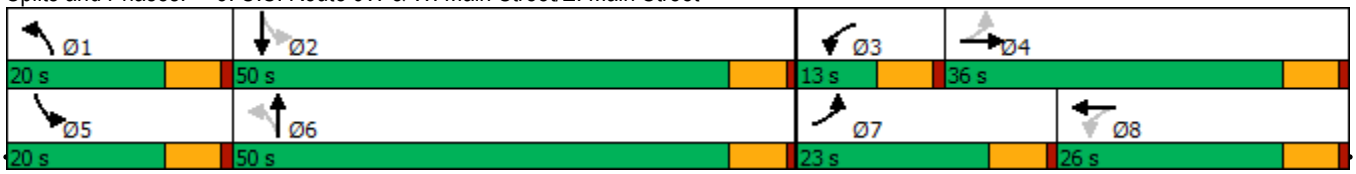
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	88	71	168	43	10	78	445	228	26	365	31
Future Volume (vph)	47	88	71	168	43	10	78	445	228	26	365	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	10	12	11	11	12	12	12	12	12	12	12
Grade (%)		-2%			2%			4%			-2%	
Storage Length (ft)	50		0	150		0	460		0	110		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	86			86			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.933			0.972			0.949			0.988	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1762	1671	0	1727	1767	0	1769	1744	0	1823	1862	0
Flt Permitted	0.719			0.469			0.365			0.143		
Satd. Flow (perm)	1334	1671	0	853	1767	0	680	1744	0	274	1862	0
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					9			25			4	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		414			1841			131			576	
Travel Time (s)		9.4			41.8			3.0			13.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	2%	0%
Adj. Flow (vph)	51	96	77	183	47	11	85	484	248	28	397	34
Shared Lane Traffic (%)												
Lane Group Flow (vph)	51	173	0	183	58	0	85	732	0	28	431	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.03	1.08	0.99	1.06	1.06	1.01	1.03	1.03	1.03	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases	4			8			6			2		
Detector Phase	7	4		3	8		1	6		5	2	
Switch Phase												
Minimum Initial (s)	3.0	5.0		3.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	9.0	11.0		9.0	11.0		9.0	16.0		9.0	16.0	
Total Split (s)	23.0	36.0		13.0	26.0		20.0	50.0		20.0	50.0	
Total Split (%)	19.3%	30.3%		10.9%	21.8%		16.8%	42.0%		16.8%	42.0%	
Maximum Green (s)	17.0	30.0		7.0	20.0		14.0	44.0		14.0	44.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		13.0			13.0			14.0			12.0	
Pedestrian Calls (#/hr)		0			9			2			0	
v/c Ratio	0.15	0.68		0.63	0.15		0.19	0.84		0.12	0.51	
Control Delay	25.2	50.5		38.6	30.6		10.9	32.3		11.2	21.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	25.2	50.5		38.6	30.6		10.9	32.3		11.2	21.9	
Queue Length 50th (ft)	22	100		87	26		20	374		7	175	
Queue Length 95th (ft)	50	170		#148	63		49	#706		21	314	
Internal Link Dist (ft)		334			1761			51			496	
Turn Bay Length (ft)	50			150			460			110		
Base Capacity (vph)	480	562		290	424		556	873		398	921	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.11	0.31		0.63	0.14		0.15	0.84		0.07	0.47	

Intersection Summary

Area Type: Other
Cycle Length: 119
Actuated Cycle Length: 90.3
Natural Cycle: 75
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: U.S. Route 9W & W. Main Street/E. Main Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	88	71	168	43	10	78	445	228	26	365	31
Future Volume (veh/h)	47	88	71	168	43	10	78	445	228	26	365	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1979	1979	1979	1876	1876	1876	1806	1776	1776	1979	1949	1949
Adj Flow Rate, veh/h	51	96	77	183	47	11	85	484	248	28	397	34
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	2	2	0	2	2
Cap, veh/h	351	125	100	276	235	55	442	516	265	195	813	70
Arrive On Green	0.05	0.12	0.12	0.08	0.16	0.16	0.04	0.47	0.47	0.04	0.46	0.46
Sat Flow, veh/h	1884	1017	815	1787	1470	344	1720	1107	567	1884	1770	152
Grp Volume(v), veh/h	51	0	173	183	0	58	85	0	732	28	0	431
Grp Sat Flow(s),veh/h/ln	1884	0	1832	1787	0	1814	1720	0	1674	1884	0	1921
Q Serve(g_s), s	1.9	0.0	7.6	7.0	0.0	2.3	2.1	0.0	34.3	0.6	0.0	12.9
Cycle Q Clear(g_c), s	1.9	0.0	7.6	7.0	0.0	2.3	2.1	0.0	34.3	0.6	0.0	12.9
Prop In Lane	1.00		0.45	1.00		0.19	1.00		0.34	1.00		0.08
Lane Grp Cap(c), veh/h	351	0	225	276	0	290	442	0	781	195	0	882
V/C Ratio(X)	0.15	0.00	0.77	0.66	0.00	0.20	0.19	0.00	0.94	0.14	0.00	0.49
Avail Cap(c_a), veh/h	649	0	664	276	0	438	658	0	890	446	0	1021
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.3	0.0	35.2	29.8	0.0	30.2	11.9	0.0	20.9	17.8	0.0	15.6
Incr Delay (d2), s/veh	0.1	0.0	2.1	4.7	0.0	0.1	0.1	0.0	15.1	0.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	3.4	3.5	0.0	1.0	0.8	0.0	15.5	0.3	0.0	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.3	0.0	37.3	34.6	0.0	30.3	12.0	0.0	36.0	17.9	0.0	15.8
LnGrp LOS	C	A	D	C	A	C	B	A	D	B	A	B
Approach Vol, veh/h		224			241			817			459	
Approach Delay, s/veh		35.5			33.5			33.5			15.9	
Approach LOS		D			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.6	44.0	13.0	16.2	9.0	44.6	9.9	19.2
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	14.0	44.0	7.0	30.0	14.0	44.0	17.0	20.0
Max Q Clear Time (g_c+I1), s	4.1	14.9	9.0	9.6	2.6	36.3	3.9	4.3
Green Ext Time (p_c), s	0.1	1.8	0.0	0.6	0.0	2.3	0.0	0.1

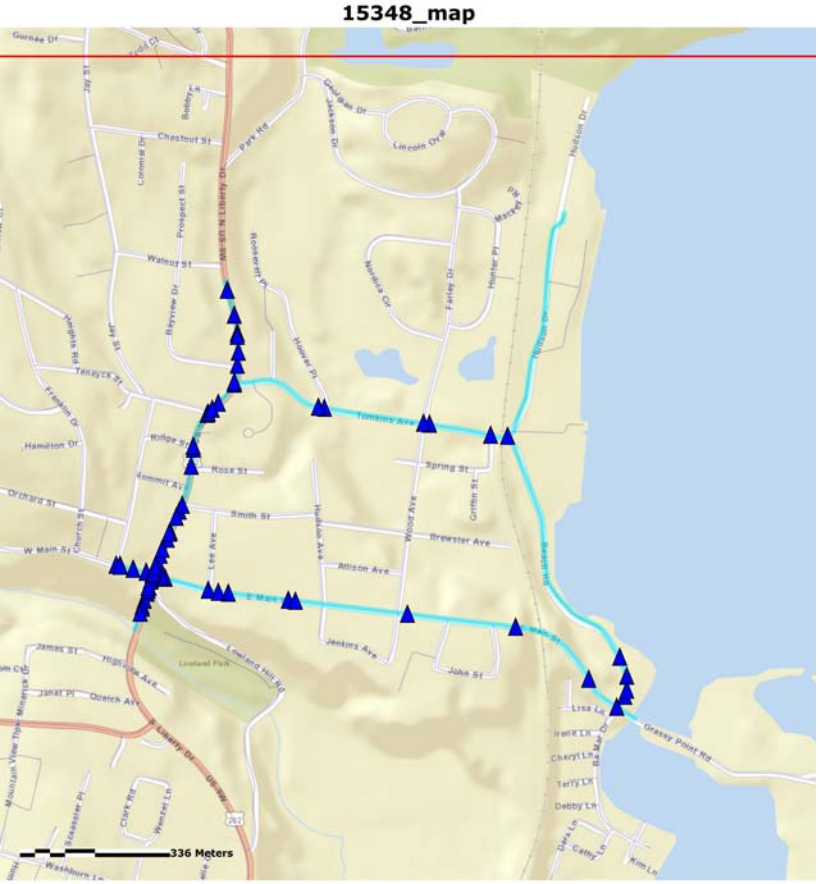
Intersection Summary	
HCM 6th Ctrl Delay	29.1
HCM 6th LOS	C

EAGLE BAY

APPENDIX K

ACCIDENT DATA

15348_map



Legend

Railroad

NYSDOT QRA ACCIDENT SEVERITY SUMMARY

Print Date 9/26/2018 **Print Time** 10:48:30AM

Query Number/Name	Query Type	Query Sub Type	Accident Date Range
40139 15348	AttributeQuery	None	1/1/2013 12:00:00AM To 12/31/2017 12:00:00AM

Case Year	Injury	Fatality	Property Damage	Non-Reportables	Totals
2013	4	0	3	12	19
2014	9	1	4	11	25
2015	4	0	3	18	25
2016	6	0	5	21	32
2017	6	1	15	14	36
Grand Total:	29	2	30	76	

Accident Location Information System(ALIS)

Date: 9/26/2018
10:42:49 AM

Accident Verbal Description

15348_VDR

Date in this report covers the period - 1/1/2013-12/31/2017

Complete Accident data from NYSDMV is only available thru 5/31/2018 12:00:00 AM

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011184 Street: S LIBERTY DR
60 Meters South of Lowland Hl

1/29/2013 Tue 17:22 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2013-34631357**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NO PASSING ZONE
Manner of Collision: REAR END Weather: RAIN
Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DUSK
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 70 Sex: M Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 2 Driver's Age: 18 Sex: F Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: PAVEMENT SLIPPERY, DRIVER INATTENTION

County: Rockland Muni: Stony Point(T) Ref. Marker: Street: W MAIN ST
40 Meters East of Jay St

3/17/2013 Sun 22:34 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2013-34697566**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: LEFT TURN (WITH OTHER CAR) Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 20 Sex: M Citation Issued: Y
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, UNSAFE SPEED

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 21 Sex: M Citation Issued: N

Direction of Travel: NORTH-WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: MAKING LEFT TURN

Apparent Factors: NOT APPLICABLE, FAILURE TO YIELD RIGHT OF WAY

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011185 Street: E MAIN ST
AT INTERSECTION WITH N LIBERTY DR

5/14/2013 Tue 14:20 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2013-34773365**

Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL

Manner of Collision: OVERTAKING Weather: CLEAR

Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY

Num of Occupants: 1 Driver's Age: 40 Sex: M Citation Issued: N

Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: MAKING LEFT TURN

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY

Num of Occupants: 1 Driver's Age: 34 Sex: F Citation Issued: N

Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: MAKING RIGHT TURN

Apparent Factors: PASSING TOO CLOSELY, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011185 Street: N LIBERTY DR
AT INTERSECTION WITH E MAIN ST

6/19/2013 Wed 09:17 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2013-34818830**

Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE

Manner of Collision: RIGHT ANGLE Weather: CLEAR

Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY

Num of Occupants: 1 Driver's Age: 70 Sex: F Citation Issued: N

Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY

Num of Occupants: 1 Driver's Age: 47 Sex: F Citation Issued: N

Direction of Travel: NORTH-WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: MAKING LEFT TURN

Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011185 Street: N LIBERTY DR
AT INTERSECTION WITH E MAIN ST
7/23/2013 Tue 16:00 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2013-34862596**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: RIGHT ANGLE Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 58 Sex: M Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: OUTSIDE CAR DISTRACTION, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 2 Driver's Age: 24 Sex: F Citation Issued: Y
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, OUTSIDE CAR DISTRACTION

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011184 Street: LOWLAND HL
AT INTERSECTION WITH S LIBERTY DR
7/16/2013 Tue 17:05 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2013-34865024**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: RIGHT ANGLE Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 2 Driver's Age: 62 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 3 Driver's Age: 18 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: Street: HOOVER PL
AT INTERSECTION WITH TOMKINS AVE
7/29/2013 Mon 18:50 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2013-34870115**

Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 51 Sex: F Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 2 Driver's Age: Sex: Citation Issued:
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: PARKED
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011184 Street: S LIBERTY DR
AT INTERSECTION WITH W MAIN ST
8/9/2013 Fri 16:30 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2013-34883181**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLOUDY
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: Sex: Citation Issued:
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, FOLLOWING TOO CLOSELY

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 29 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011185 Street: N LIBERTY DR
16 Meters South of Smith St
8/14/2013 Wed 10:00 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2013-34887246**
Accident Class: PROPERTY DAMAGE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: RIGHT ANGLE Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3316 State of Registration: NY
Num of Occupants: 2 Driver's Age: Sex: Citation Issued:
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: PARKED
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 5672 State of Registration: NY
Num of Occupants: 3 Driver's Age: 31 Sex: F Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: BACKING
Apparent Factors: BACKING UNSAFELY, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011184 Street: S LIBERTY DR
AT INTERSECTION WITH E Main St
8/14/2013 Wed 15:00 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2013-34892395**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 2 Driver's Age: Sex: Citation Issued:
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: PARKED
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 OTHER Registered Weight: State of Registration:
Num of Occupants: 1 Driver's Age: Sex: U Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: UNKNOWN
Apparent Factors: UNKNOWN, UNKNOWN

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011185 Street: N LIBERTY DR
AT INTERSECTION WITH E MAIN ST
8/13/2013 Tue 14:12 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2013-34914816**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: RIGHT ANGLE Weather: CLOUDY
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 3 Driver's Age: 19 Sex: F Citation Issued: N

Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY

Num of Occupants: 2 Driver's Age: 78 Sex: M Citation Issued: N

Direction of Travel: NORTH-EAST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: MAKING RIGHT TURN

Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011184 Street: S LIBERTY DR
AT INTERSECTION WITH W MAIN ST

9/17/2013 Tue 21:05 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: A **Case: 2013-34931681**

Accident Class: INJURY Police Agency: STONY POINT TOWN PD Num of Veh: 3

Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL

Manner of Collision: OTHER Weather: CLEAR

Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :3 CAR/VAN/PICKUP Registered Weight: 2271 State of Registration: NY

Num of Occupants: 1 Driver's Age: 22 Sex: M Citation Issued: N

Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: SLOWED OR STOPPING

Apparent Factors: FOLLOWING TOO CLOSELY, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2756 State of Registration: NY

Num of Occupants: 2 Driver's Age: 24 Sex: F Citation Issued: N

Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: STOPPED IN TRAFFIC

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 OTHER Registered Weight: State of Registration:

Num of Occupants: 0 Driver's Age: Sex: Citation Issued:

Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: SLOWED OR STOPPING

Apparent Factors: UNKNOWN, UNKNOWN

County: Rockland Muni: Stony Point(T) Ref. Marker: Street: W MAIN ST
AT INTERSECTION WITH JAY ST

10/24/2013 Thu 18:41 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2013-34981417**

Accident Class: PROPERTY DAMAGE Police Agency: STONY POINT TOWN PD Num of Veh: 1

Type Of Accident: COLLISION WITH BUILDING/WALL Traffic Control: NONE

Manner of Collision: OTHER Weather: CLEAR

Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DARK-ROAD LIGHTED

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2995 State of Registration: NY
Num of Occupants: 1 Driver's Age: 55 Sex: M Citation Issued: Y
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: UNKNOWN, ALCOHOL INVOLVEMENT

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011185 Street: [Route] 9W
11/2/2013 Sat 20:05 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2013-34992999**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 56 Sex: F Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: NOT APPLICABLE, FOLLOWING TOO CLOSELY

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 2 Driver's Age: 55 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011185 Street: N LIBERTY DR
AT INTERSECTION WITH E MAIN ST
11/11/2013 Mon 17:05 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2013-34998244**
Accident Class: INJURY Police Agency: STONY POINT TOWN PD Num of Veh: 1
Type Of Accident: COLLISION WITH PEDESTRIAN Traffic Control: NO PASSING ZONE
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: PED/BICYCLIST AT INTERSECTION Action of Ped/Bicycle: CROSSING/ NO SIGNAL OR CROSSWALK

Veh :1 CAR/VAN/PICKUP Registered Weight: 2272 State of Registration: NY
Num of Occupants: 1 Driver's Age: 19 Sex: F Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 PEDESTRIAN Registered Weight: State of Registration:
Num of Occupants: 1 Driver's Age: 42 Sex: M Citation Issued: N
Direction of Travel: NOT APPLICABLE Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: NOT APPLICABLE

Apparent Factors: PEDESTRIAN'S ERROR/CONFUSION, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011187 Street: [Route] 9W
11/15/2013 Fri 04:30 AM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: B **Case: 2013-35004190**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: STONY POINT TOWN PD Num of Veh: 1
Type Of Accident: COLLISION WITH DEER Traffic Control: NONE
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4551 State of Registration: NY
Num of Occupants: 1 Driver's Age: 42 Sex: M Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: ANIMAL'S ACTION, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011184 Street: [Route] 9W
12/9/2013 Mon 22:55 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: B **Case: 2013-35040583**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: STONY POINT TOWN PD Num of Veh: 1
Type Of Accident: COLLISION WITH BRIDGE STRUCTURE Traffic Control: NO PASSING ZONE
Manner of Collision: OTHER Weather: CLOUDY
Road Surface Condition: SNOW/ICE Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4208 State of Registration: NY
Num of Occupants: 1 Driver's Age: 33 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, PAVEMENT SLIPPERY

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011184 Street: S LIBERTY DR
AT INTERSECTION WITH E Main St
12/21/2013 Sat 00:30 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2013-35059695**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: UNKNOWN Weather: CLEAR
Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 OTHER Registered Weight: State of Registration:
Num of Occupants: 1 Driver's Age: Sex: U Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: UNKNOWN
Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY

Num of Occupants: 2 Driver's Age: Sex: Citation Issued:

Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: PARKED

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Muni: Ref. Marker: Street: W MAIN ST

1/6/2014 Mon 17:25 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2014-35070762**

Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 1

Type Of Accident: COLLISION WITH OTHER FIXED OBJECT Traffic Control: NONE

Manner of Collision: OTHER Weather: CLOUDY

Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY

Num of Occupants: 1 Driver's Age: 33 Sex: M Citation Issued: N

Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: BACKING

Apparent Factors: NOT APPLICABLE, BACKING UNSAFELY

County: Rockland Muni: Stony Point(T) Ref. Marker: Street: BEACH RD
AT INTERSECTION WITH E MAIN ST

10/28/2013 Mon 14:00 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2013-35074401**

Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: UNKNOWN

Manner of Collision: UNKNOWN Weather: UNKNOWN

Road Surface Condition: UNKNOWN Road Char.: UNKNOWN Light Condition: UNKNOWN

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3406 State of Registration: NY

Num of Occupants: 2 Driver's Age: 18 Sex: M Citation Issued: N

Direction of Travel: UNKNOWN Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: MAKING LEFT TURN

Apparent Factors: NOT ENTERED, NOT ENTERED

Veh :2 CAR/VAN/PICKUP Registered Weight: 3513 State of Registration: NY

Num of Occupants: 1 Driver's Age: 81 Sex: M Citation Issued: N

Direction of Travel: UNKNOWN Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: UNKNOWN

Apparent Factors: NOT ENTERED, NOT ENTERED

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011184 Street: S LIBERTY DR
31 Meters South of Lowland Hl

2/6/2014 Thu 11:15 AM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2014-35123096**

Accident Class: INJURY Police Agency: STONY POINT TOWN PD Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL

Manner of Collision: REAR END Weather: CLEAR

Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2949 State of Registration: NY
Num of Occupants: 1 Driver's Age: 25 Sex: M Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION

Veh :2 CAR/VAN/PICKUP Registered Weight: 4026 State of Registration: NY
Num of Occupants: 1 Driver's Age: 48 Sex: F Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: Street: W MAIN ST
AT INTERSECTION WITH JAY ST
2/10/2014 Mon 16:05 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2014-35128628**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
Manner of Collision: LEFT TURN (WITH OTHER CAR) Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4623 State of Registration: NY
Num of Occupants: 1 Driver's Age: 45 Sex: F Citation Issued: N
Direction of Travel: NORTH-EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 2864 State of Registration: NY
Num of Occupants: 1 Driver's Age: 48 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011187 Street: N LIBERTY DR
AT INTERSECTION WITH TOMKINS AVE
2/14/2014 Fri 09:25 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2014-35135999**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NO PASSING ZONE
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: SNOW/ICE Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 75 Sex: F Citation Issued: N

Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: FOLLOWING TOO CLOSELY, PAVEMENT SLIPPERY

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY

Num of Occupants: 1 Driver's Age: 38 Sex: M Citation Issued: N

Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: STOPPED IN TRAFFIC

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011185 Street: N LIBERTY DR
70 Meters South of Smith St

3/6/2014 Thu 15:30 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2014-35165930**

Accident Class: PROPERTY DAMAGE Police Agency: STONY POINT TOWN PD Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL

Manner of Collision: REAR END Weather: CLEAR

Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 9200 State of Registration: NY

Num of Occupants: 1 Driver's Age: 30 Sex: M Citation Issued: N

Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: STOPPED IN TRAFFIC

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 2877 State of Registration: NY

Num of Occupants: 1 Driver's Age: 64 Sex: M Citation Issued: N

Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION

County: Rockland Muni: Stony Point(T) Ref. Marker: Street: BEACH RD
AT INTERSECTION WITH Tomkins Ave

3/14/2014 Fri 06:45 AM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: BC **Case: 2014-35176533**

Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: STONY POINT TOWN PD Num of Veh: 1

Type Of Accident: COLL. W/LIGHT SUPPORT/UTILITY POLE Traffic Control: NO PASSING ZONE

Manner of Collision: OTHER Weather: CLEAR

Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAWN

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3354 State of Registration: NY

Num of Occupants: 2 Driver's Age: 22 Sex: F Citation Issued: N

Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: NOT APPLICABLE, FELL ASLEEP

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011185 Street: [Route] 202
AT INTERSECTION WITH W MAIN ST
4/1/2014 Tue 15:20 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2014-35206472**
Accident Class: NON-REPORTABLE Police Agency: HAVERSTRAW TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 44 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 55 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: DRIVER INATTENTION, UNKNOWN

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011188 Street: N LIBERTY DR
30 Meters North of BAYVIEW DR
3/18/2014 Tue 23:00 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2014-35213037**
Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 1
Type Of Accident: COLL. W/EARTH ELE./ROCK CUT/DITCH Traffic Control: NONE
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: SNOW/ICE Road Char.: CURVE AND GRADE Light Condition: DARK-ROAD UNLIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4237 State of Registration: NY
Num of Occupants: 2 Driver's Age: 31 Sex: F Citation Issued: N
Direction of Travel: NORTH-WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: NOT ENTERED, NOT ENTERED

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011184 Street: S LIBERTY DR
31 Meters South of Lowland Hl
5/26/2014 Mon 12:00 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2014-35269623**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NJ
Num of Occupants: 2 Driver's Age: 50 Sex: M Citation Issued: N

Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: NOT APPLICABLE, FOLLOWING TOO CLOSELY

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: FL

Num of Occupants: 4 Driver's Age: 55 Sex: M Citation Issued: N

Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: SLOWED OR STOPPING

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011184 Street: S LIBERTY DR
AT INTERSECTION WITH E Main St

7/18/2014 Fri 16:03 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2014-35330837**

Accident Class: PROPERTY DAMAGE Police Agency: STONY POINT TOWN PD Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE

Manner of Collision: RIGHT ANGLE Weather: CLEAR

Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 TRUCK Registered Weight: 11000 State of Registration: NY

Num of Occupants: 1 Driver's Age: 53 Sex: M Citation Issued: N

Direction of Travel: NORTH-WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: OTHER (VEHICLE), NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 4550 State of Registration: NY

Num of Occupants: 2 Driver's Age: Sex: Citation Issued:

Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: PARKED

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: Street: TOMKINS AVE
15 Meters East of WOOD AVE

8/10/2014 Sun 21:15 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2014-35357328**

Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 1

Type Of Accident: COLLISION WITH TREE Traffic Control: NO PASSING ZONE

Manner of Collision: OTHER Weather: CLEAR

Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY

Num of Occupants: 1 Driver's Age: 20 Sex: F Citation Issued: N

Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: BACKING

Apparent Factors: OBSTRUCTION/DEBRIS, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011185 Street: N LIBERTY DR
AT INTERSECTION WITH W MAIN ST
8/13/2014 Wed 14:35 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2014-35363294**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLOUDY
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 2 Driver's Age: 36 Sex: F Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 28 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: Street: E MAIN ST
15 Meters East of N Liberty Dr
8/24/2014 Sun 20:05 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2014-35375901**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: LEFT TURN (WITH OTHER CAR) Weather: CLOUDY
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DUSK
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 71 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 24 Sex: M Citation Issued: N
Direction of Travel: NORTH-EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: TURNING IMPROPER, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: Street: E MAIN ST
30 Meters East of N Liberty Dr
8/31/2014 Sun 12:30 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2014-35386681**

Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3408 State of Registration: NY
Num of Occupants: 2 Driver's Age: 54 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3540 State of Registration: NY
Num of Occupants: 1 Driver's Age: 62 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STARTING FROM PARKING
Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011187 Street: N LIBERTY DR
AT INTERSECTION WITH 10 EYCK ST
9/19/2014 Fri 18:51 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2014-35403164**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 26 Sex: F Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 28 Sex: M Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011184 Street: S LIBERTY DR
1 Meters South of E Main St
9/30/2014 Tue 14:45 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2014-35417745**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NO PASSING ZONE
Manner of Collision: REAR END Weather: CLOUDY
Road Surface Condition: DRY Road Char.: CURVE AND LEVEL Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4718 State of Registration: NY
Num of Occupants: 1 Driver's Age: 34 Sex: F Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: REACTION TO OTHER UNINVOLVED VEHICL, FOLLOWING TOO CLOSELY

Veh :2 TRUCK Registered Weight: 14050 State of Registration: NY
Num of Occupants: 1 Driver's Age: 70 Sex: M Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: Street: W MAIN ST
AT INTERSECTION WITH JAY ST
10/2/2014 Thu 19:05 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2014-35419702**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NO PASSING ZONE
Manner of Collision: OVERTAKING Weather: CLOUDY
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 3 Driver's Age: Sex: Citation Issued:
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: PARKED
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 69 Sex: F Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, PASSING TOO CLOSELY

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011185 Street: N LIBERTY DR
AT INTERSECTION WITH W MAIN ST
10/4/2014 Sat 13:35 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2014-35420303**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: RAIN
Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 2 Driver's Age: 18 Sex: F Citation Issued: N

Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY

Num of Occupants: 1 Driver's Age: 56 Sex: M Citation Issued: N

Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: STOPPED IN TRAFFIC

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011188 Street: N LIBERTY DR
AT INTERSECTION WITH BAYVIEW DR

9/27/2014 Sat 02:28 AM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: AA **Case: 2014-35423085**

Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: STONY POINT TOWN PD Num of Veh: 1

Type Of Accident: COLL. W/LIGHT SUPPORT/UTILITY POLE Traffic Control: NO PASSING ZONE

Manner of Collision: OTHER Weather: CLEAR

Road Surface Condition: DRY Road Char.: CURVE AND LEVEL Light Condition: DARK-ROAD LIGHTED

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3838 State of Registration: NY

Num of Occupants: 4 Driver's Age: 18 Sex: M Citation Issued: Y

Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: ALCOHOL INVOLVEMENT, UNSAFE SPEED

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011184 Street: S LIBERTY DR
1 Meters South of E Main St

10/6/2014 Mon 19:30 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2014-35423944**

Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NO PASSING ZONE

Manner of Collision: OVERTAKING Weather: CLEAR

Road Surface Condition: DRY Road Char.: CURVE AND LEVEL Light Condition: DARK-ROAD LIGHTED

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY

Num of Occupants: 2 Driver's Age: 29 Sex: M Citation Issued: N

Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY

Num of Occupants: 2 Driver's Age: 86 Sex: F Citation Issued: N

Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: MAKING RIGHT TURN

Apparent Factors: NOT APPLICABLE, PASSING OR LANE USAGE IMPROPERLY

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011185 Street: N LIBERTY DR
AT INTERSECTION WITH SMITH ST

10/23/2014 Thu 16:30 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2014-35442169**
Accident Class: PROPERTY DAMAGE Police Agency: STONY POINT TOWN PD Num of Veh: 3
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: FLASHING LIGHT
Manner of Collision: OTHER Weather: CLOUDY
Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 5250 State of Registration: NY
Num of Occupants: 1 Driver's Age: 50 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: FOLLOWING TOO CLOSELY, NOT APPLICABLE

Veh :3 CAR/VAN/PICKUP Registered Weight: 4561 State of Registration: NY
Num of Occupants: 1 Driver's Age: 55 Sex: F Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3318 State of Registration: NY
Num of Occupants: 1 Driver's Age: 29 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: Street: E MAIN ST
AT INTERSECTION WITH BEACH RD

11/4/2014 Tue 08:33 AM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: A **Case: 2014-35457032**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
Manner of Collision: RIGHT ANGLE Weather: CLEAR
Road Surface Condition: DRY Road Char.: CURVE AND GRADE Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2429 State of Registration: NY
Num of Occupants: 4 Driver's Age: 35 Sex: F Citation Issued: Y
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, VIEW OBSTRUCTED/LIMITED

Veh :2 CAR/VAN/PICKUP Registered Weight: 4290 State of Registration: NY
Num of Occupants: 1 Driver's Age: 58 Sex: F Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: Street: E MAIN ST
23 Meters East of N LIBERTY DR
11/17/2014 Mon 17:15 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2014-35472422**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NO PASSING ZONE
Manner of Collision: SIDESWIPE Weather: RAIN
Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 90 Sex: F Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING RIGHT TURN
Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 60 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: Street: E MAIN ST
91 Meters West of BEACH RD
12/13/2014 Sat 04:28 AM Persons Killed: 1 Persons Injured: 0 Extent of Injuries: K **Case: 2014-35520348**
Accident Class: FATAL Police Agency: STONY POINT TOWN PD Num of Veh: 1
Type Of Accident: COLL. W/LIGHT SUPPORT/UTILITY POLE Traffic Control: NO PASSING ZONE
Manner of Collision: OTHER Weather: CLOUDY
Road Surface Condition: DRY Road Char.: CURVE AND GRADE Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2519 State of Registration: NY
Num of Occupants: 1 Driver's Age: 22 Sex: F Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: ALCOHOL INVOLVEMENT, UNSAFE SPEED

County: Rockland Muni: Stony Point(T) Ref. Marker: Street: E MAIN ST
AT INTERSECTION WITH BEACH RD
12/30/2014 Tue 09:03 AM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2014-35532574**
Accident Class: INJURY Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
Manner of Collision: RIGHT ANGLE Weather: CLOUDY
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 10000 State of Registration: NY
Num of Occupants: 1 Driver's Age: 45 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: NOT APPLICABLE, VIEW OBSTRUCTED/LIMITED

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: FL
Num of Occupants: 1 Driver's Age: 47 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011188 Street: N LIBERTY DR
65 Meters North of Bayview Dr
1/12/2015 Mon 16:20 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2015-35554261**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: RIGHT ANGLE Weather: SLEET/HAIL/FREEZING RAIN
Road Surface Condition: WET Road Char.: STRAIGHT/ GRADE Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 OTHER Registered Weight: State of Registration:
Num of Occupants: 1 Driver's Age: Sex: U Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: OTHER
Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 68 Sex: F Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, UNKNOWN

County: Rockland Muni: Stony Point(T) Ref. Marker: Street: E MAIN ST
76 Meters West of HUDSON AVE
1/19/2015 Mon 10:20 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2015-35561417**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NO PASSING ZONE
Manner of Collision: OVERTAKING Weather: CLOUDY
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 85 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: PASSING TOO CLOSELY, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY

Num of Occupants: 2 Driver's Age: Sex: Citation Issued:

Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: PARKED

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011187 Street: N LIBERTY DR
AT INTERSECTION WITH TOMKINS AVE

1/22/2015 Thu 19:00 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2015-35571346**

Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 1

Type Of Accident: COLLISION WITH OTHER FIXED OBJECT Traffic Control: NONE

Manner of Collision: OTHER Weather: CLEAR

Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DARK-ROAD LIGHTED

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY

Num of Occupants: 1 Driver's Age: 65 Sex: M Citation Issued: N

Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: MAKING LEFT TURN

Apparent Factors: TURNING IMPROPER, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011185 Street: N LIBERTY DR
AT INTERSECTION WITH E MAIN ST

1/30/2015 Fri 16:55 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2015-35577632**

Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL

Manner of Collision: REAR END Weather: CLOUDY

Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DUSK

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY

Num of Occupants: 1 Driver's Age: 56 Sex: F Citation Issued: N

Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: STARTING IN TRAFFIC

Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY

Num of Occupants: 3 Driver's Age: 31 Sex: F Citation Issued: N

Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: STOPPED IN TRAFFIC

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: Street: W MAIN ST
9 Meters East of Jay St
1/31/2015 Sat 21:55 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2015-35580631**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: OVERTAKING Weather: CLOUDY
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 38 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 2 Driver's Age: Sex: Citation Issued:
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: PARKED
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011185 Street: W MAIN ST
AT INTERSECTION WITH N LIBERTY DR
2/8/2015 Sun 11:30 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2015-35617817**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: RIGHT ANGLE Weather: CLOUDY
Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 16 Sex: M Citation Issued: N
Direction of Travel: NORTH-WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: BACKING
Apparent Factors: BACKING UNSAFELY, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 2 Driver's Age: Sex: Citation Issued:
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: PARKED
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: Street: W MAIN ST
15 Meters West of E Main St
3/4/2015 Wed 15:00 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2015-35635211**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NO PASSING ZONE
Manner of Collision: REAR END Weather: CLOUDY
Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 45 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 54 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011187 Street: N LIBERTY DR
AT INTERSECTION WITH 10 EYCK ST
3/12/2015 Thu 13:38 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2015-35647056**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 37 Sex: F Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 18 Sex: M Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: Street: W MAIN ST
AT INTERSECTION WITH E Main St
3/17/2015 Tue 12:38 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2015-35656190**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 1
Type Of Accident: COLLISION WITH CURBING Traffic Control: TRAFFIC SIGNAL
Manner of Collision: OTHER Weather: CLOUDY
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 31 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING RIGHT TURN
Apparent Factors: DRIVER INEXPERIENCE, DRIVER INEXPERIENCE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011185 Street: N LIBERTY DR
67 Meters South of Smith St
4/29/2015 Wed 18:25 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2015-35703228**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 41 Sex: F Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 19 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: NOT APPLICABLE, FOLLOWING TOO CLOSELY

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011184 Street: S LIBERTY DR
15 Meters South of W MAIN ST
5/22/2015 Fri 21:00 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2015-35730989**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: OVERTAKING Weather: CLOUDY
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 38 Sex: F Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 3 Driver's Age: 17 Sex: F Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: CHANGING LANES

Apparent Factors: NOT APPLICABLE, FAILURE TO YIELD RIGHT OF WAY

County: Rockland Muni: Stony Point(T) Ref. Marker: Street: E MAIN ST
AT INTERSECTION WITH LEE AVE

6/4/2015 Thu 13:30 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2015-35754166**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 73 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: BACKING
Apparent Factors: BACKING UNSAFELY, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 2 Driver's Age: Sex: Citation Issued:
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: PARKED
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011188 Street: N LIBERTY DR
114 Meters North of Bayview Dr

6/18/2015 Thu 12:35 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2015-35767331**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: RIGHT ANGLE Weather: CLOUDY
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 2 Driver's Age: Sex: Citation Issued:
Direction of Travel: NORTH-EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: PARKED
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 OTHER Registered Weight: State of Registration:
Num of Occupants: 0 Driver's Age: Sex: Citation Issued:
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: BACKING
Apparent Factors: BACKING UNSAFELY, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011187 Street: N LIBERTY DR
AT INTERSECTION WITH TOMKINS AVE

7/6/2015 Mon 13:05 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2015-35793028**
Accident Class: INJURY Police Agency: STONY POINT TOWN PD Num of Veh: 1
Type Of Accident: COLLISION WITH BICYCLIST Traffic Control: STOP SIGN
Manner of Collision: OTHER Weather: CLOUDY
Road Surface Condition: DRY Road Char.: CURVE AND GRADE Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: PED/BICYCLIST AT INTERSECTION Action of Ped/Bicycle: ALONG HIGHWAY WITH TRAFFIC

Veh :1 CAR/VAN/PICKUP Registered Weight: 3376 State of Registration: NY
Num of Occupants: 1 Driver's Age: 22 Sex: M Citation Issued: N
Direction of Travel: SOUTH-WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: VIEW OBSTRUCTED/LIMITED, NOT APPLICABLE

Veh :2 BICYCLE Registered Weight: State of Registration: -3
Num of Occupants: 1 Driver's Age: 38 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011187 Street: TOMKINS AVE
AT INTERSECTION WITH N LIBERTY DR

7/21/2015 Tue 09:20 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2015-35809004**
Accident Class: PROPERTY DAMAGE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
Manner of Collision: HEAD ON Weather: CLOUDY
Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4013 State of Registration: NY
Num of Occupants: 1 Driver's Age: 63 Sex: M Citation Issued: N
Direction of Travel: SOUTH-EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: TURNING IMPROPER, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3427 State of Registration: NY
Num of Occupants: 1 Driver's Age: 31 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011185 Street: N LIBERTY DR
30 Meters North of E MAIN ST

7/24/2015 Fri 16:30 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2015-35812487**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 3

Type Of Accident: COLLISION WITH MOTOR VEHICLE
Traffic Control: TRAFFIC SIGNAL
Manner of Collision: OTHER
Weather: CLEAR
Road Surface Condition: DRY
Road Char.: STRAIGHT AND LEVEL
Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE
Action of Ped/Bicycle: NOT APPLICABLE

Veh :3 OTHER Registered Weight: State of Registration:
Num of Occupants: 1 Driver's Age: 44 Sex: M Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 OTHER Registered Weight: State of Registration:
Num of Occupants: 2 Driver's Age: 17 Sex: M Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 OTHER Registered Weight: State of Registration:
Num of Occupants: 1 Driver's Age: 66 Sex: M Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: Street: BEACH RD
122 Meters North of E MAIN ST
8/2/2015 Sun 05:00 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2015-35825380**
Accident Class: PROPERTY DAMAGE Police Agency: STONY POINT TOWN PD Num of Veh: 1
Type Of Accident: COLLISION WITH FENCE
Traffic Control: NONE
Manner of Collision: OTHER
Weather: CLEAR
Road Surface Condition: DRY
Road Char.: CURVE AND LEVEL
Light Condition: DARK-ROAD UNLIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE
Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 23 Sex: M Citation Issued: Y
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: UNSAFE SPEED, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011185 Street: E MAIN ST
AT INTERSECTION WITH N LIBERTY DR
7/30/2015 Thu 16:45 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2015-35825382**
Accident Class: INJURY Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE
Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END
Weather: RAIN
Road Surface Condition: WET
Road Char.: STRAIGHT AND LEVEL
Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE
Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3351 State of Registration: NY
Num of Occupants: 1 Driver's Age: 45 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2762 State of Registration: NY
Num of Occupants: 1 Driver's Age: 40 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, PAVEMENT SLIPPERY

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011187 Street: N LIBERTY DR
AT INTERSECTION WITH TENEYCK ST
9/21/2015 Mon 08:02 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2015-35892588**
Accident Class: PROPERTY DAMAGE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: RIGHT ANGLE Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 TRUCK Registered Weight: 16500 State of Registration: NY
Num of Occupants: 1 Driver's Age: 29 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: UNKNOWN, OTHER (VEHICLE)

Veh :1 TRUCK Registered Weight: 13000 State of Registration: NY
Num of Occupants: 1 Driver's Age: Sex: Citation Issued:
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: PARKED
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011187 Street: N LIBERTY DR
AT INTERSECTION WITH TENEYCK ST
9/29/2015 Tue 17:40 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2015-35902993**
Accident Class: INJURY Police Agency: STONY POINT TOWN PD Num of Veh: 1
Type Of Accident: COLLISION WITH SIGN POST Traffic Control: NO PASSING ZONE
Manner of Collision: OTHER Weather: CLOUDY
Road Surface Condition: DRY Road Char.: CURVE AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3651 State of Registration: NY
Num of Occupants: 1 Driver's Age: 76 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: NOT APPLICABLE, REACTION TO OTHER UNINVOLVED VEHICL

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011188 Street: N LIBERTY DR
72 Meters North of Bayview Dr

9/30/2015 Wed 15:00 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2015-35904474**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NO PASSING ZONE
Manner of Collision: RIGHT ANGLE Weather: CLOUDY
Road Surface Condition: WET Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 68 Sex: F Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NJ
Num of Occupants: 1 Driver's Age: 73 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STARTING FROM PARKING
Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011185 Street: N LIBERTY DR
AT INTERSECTION WITH E MAIN ST

11/2/2015 Mon 17:55 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2015-35947328**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NO PASSING ZONE
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 63 Sex: F Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: BACKING
Apparent Factors: NOT APPLICABLE, BACKING UNSAFELY

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 42 Sex: M Citation Issued: N
Direction of Travel: SOUTH-EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING RIGHT TURN
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011188 Street: N LIBERTY DR
30 Meters North of BAYVIEW DR

11/11/2015 Wed 13:14 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2015-35967357**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 1
Type Of Accident: COLL. W/LIGHT SUPPORT/UTILITY POLE Traffic Control: NONE
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: CURVE AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 TRUCK Registered Weight: 107000 State of Registration: NY
Num of Occupants: 1 Driver's Age: 62 Sex: M Citation Issued: Y
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: OVERSIZED VEHICLE, UNKNOWN

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011187 Street: TOMKINS AVE
AT INTERSECTION WITH N LIBERTY DR

12/16/2015 Wed 08:25 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2015-36012067**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
Manner of Collision: LEFT TURN (WITH OTHER CAR) Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AT HILLCREST Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 3 Driver's Age: 26 Sex: F Citation Issued: N
Direction of Travel: SOUTH-EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: NOT APPLICABLE, TURNING IMPROPER

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 47 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011184 Street: S LIBERTY DR
AT INTERSECTION WITH E Main St

12/20/2015 Sun 11:47 AM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: BC **Case: 2015-36016384**
Accident Class: INJURY Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NO PASSING ZONE
Manner of Collision: RIGHT ANGLE Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2884 State of Registration: NY
Num of Occupants: 1 Driver's Age: 88 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: MAKING LEFT TURN

Apparent Factors: VIEW OBSTRUCTED/LIMITED, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 5655 State of Registration: NY

Num of Occupants: 2 Driver's Age: 56 Sex: M Citation Issued: N

Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011184 Street: N LIBERTY DR
AT INTERSECTION WITH E Main St

1/7/2016 Thu 07:10 AM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: A **Case: 2016-36046027**

Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: STONY POINT TOWN PD Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL

Manner of Collision: LEFT TURN (AGAINST OTHER CAR) Weather: CLEAR

Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAWN

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3080 State of Registration: NY

Num of Occupants: 1 Driver's Age: 34 Sex: F Citation Issued: N

Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY

Num of Occupants: 2 Driver's Age: 73 Sex: M Citation Issued: Y

Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: MAKING LEFT TURN

Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, TURNING IMPROPER

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011185 Street: N LIBERTY DR
AT INTERSECTION WITH E MAIN ST

1/12/2016 Tue 15:32 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36049225**

Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL

Manner of Collision: REAR END Weather: CLEAR

Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: MI

Num of Occupants: 1 Driver's Age: 28 Sex: M Citation Issued: N

Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: SLOWED OR STOPPING

Apparent Factors: FOLLOWING TOO CLOSELY, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY

Num of Occupants: 1 Driver's Age: 21 Sex: M Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: Street: BEACH RD
30 Meters North of GRASSY POINT RD
1/9/2016 Sat 23:45 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36049443**
Accident Class: PROPERTY DAMAGE Police Agency: HAVERSTRAW TOWN PD Num of Veh: 1
Type Of Accident: COLLISION WITH GUIDE RAIL Traffic Control: NONE
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: CURVE AND LEVEL Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3186 State of Registration: NY
Num of Occupants: 1 Driver's Age: 26 Sex: M Citation Issued: Y
Direction of Travel: SOUTH-WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: UNKNOWN
Apparent Factors: FELL ASLEEP, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011184 Street: S LIBERTY DR
45 Meters South of Lowland Hl
1/27/2016 Wed 15:20 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36068685**
Accident Class: PROPERTY DAMAGE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3358 State of Registration: NY
Num of Occupants: 1 Driver's Age: 70 Sex: M Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 2877 State of Registration: NY
Num of Occupants: 1 Driver's Age: 60 Sex: F Citation Issued: Y
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: PRESCRIPTION MEDICATION, DRIVER INATTENTION

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011184 Street: S LIBERTY DR
AT INTERSECTION WITH E Main St
2/14/2016 Sun 13:15 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36093990**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: OVERTAKING Weather: CLEAR

Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 4 Driver's Age: Sex: Citation Issued:
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: PARKED
Apparent Factors: NOT APPLICABLE, PASSENGER DISTRACTION

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 2 Driver's Age: 17 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: ENTERING PARKED POSITION
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011189 Street: N LIBERTY DR
61 Meters South of WALNUT ST
2/26/2016 Fri 02:00 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36112023**
Accident Class: PROPERTY DAMAGE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: LEFT TURN (AGAINST OTHER CAR) Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 OTHER Registered Weight: State of Registration: -3
Num of Occupants: 0 Driver's Age: Sex: Citation Issued:
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: UNKNOWN, TURNING IMPROPER

Veh :1 CAR/VAN/PICKUP Registered Weight: 2904 State of Registration: NY
Num of Occupants: 1 Driver's Age: Sex: Citation Issued:
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: PARKED
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011184 Street: S LIBERTY DR
AT INTERSECTION WITH W MAIN ST
3/15/2016 Tue 13:45 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36135898**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY

Num of Occupants: 1 Driver's Age: 18 Sex: F Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 51 Sex: F Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011184 Street: S LIBERTY DR
14 Meters South of Lowland Hl
3/19/2016 Sat 09:55 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36139888**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 4 Driver's Age: 30 Sex: F Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: BACKING
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 2 Driver's Age: 56 Sex: F Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: BACKING
Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011185 Street: E MAIN ST
AT INTERSECTION WITH N LIBERTY DR
3/20/2016 Sun 15:48 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2016-36155899**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: UNKNOWN
Manner of Collision: REAR END Weather: UNKNOWN
Road Surface Condition: UNKNOWN Road Char.: UNKNOWN Light Condition: UNKNOWN
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3279 State of Registration: NY
Num of Occupants: 1 Driver's Age: 33 Sex: F Citation Issued: N
Direction of Travel: UNKNOWN Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC

Apparent Factors: NOT ENTERED, NOT ENTERED

Veh :2 CAR/VAN/PICKUP Registered Weight: 3067 State of Registration: NY
Num of Occupants: 1 Driver's Age: 54 Sex: M Citation Issued: N
Direction of Travel: UNKNOWN Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: UNKNOWN
Apparent Factors: NOT ENTERED, NOT ENTERED

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011185 Street: [Route] 9W
AT INTERSECTION WITH E MAIN ST
4/4/2016 Mon 20:00 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2016-36158818**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: RIGHT ANGLE Weather: CLOUDY
Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 2999 State of Registration: NY
Num of Occupants: 1 Driver's Age: 39 Sex: F Citation Issued: Y
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, TRAFFIC CONTROL DEVICES DISREGARDED

Veh :1 CAR/VAN/PICKUP Registered Weight: 3424 State of Registration: NY
Num of Occupants: 1 Driver's Age: 60 Sex: F Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: Street: BA MAR DR
AT INTERSECTION WITH E MAIN ST
4/24/2016 Sun 20:24 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36183285**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: SIDESWIPE Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DUSK
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 40 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 2 Driver's Age: 35 Sex: U Citation Issued: N

Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011184 Street: S LIBERTY DR
AT INTERSECTION WITH E Main St

5/4/2016 Wed 21:20 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36194185**

Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE

Manner of Collision: REAR END Weather: CLOUDY

Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY

Num of Occupants: 2 Driver's Age: 72 Sex: M Citation Issued: N

Direction of Travel: NORTH-WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: STOPPED IN TRAFFIC

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY

Num of Occupants: 1 Driver's Age: 65 Sex: F Citation Issued: N

Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: BACKING

Apparent Factors: NOT APPLICABLE, BACKING UNSAFELY

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011184 Street: S LIBERTY DR
AT INTERSECTION WITH E Main St

5/9/2016 Mon 14:18 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36199341**

Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE

Manner of Collision: RIGHT TURN (WITH OTHER CAR) Weather: CLEAR

Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY

Num of Occupants: 2 Driver's Age: Sex: Citation Issued:

Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: PARKED

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY

Num of Occupants: 1 Driver's Age: 86 Sex: F Citation Issued: N

Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: BACKING

Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011185 Street: N LIBERTY DR
83 Meters South of Smith St

5/29/2016 Sun 17:20 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36231297**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 1
Type Of Accident: COLLISION WITH FENCE Traffic Control: NONE
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 72 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011184 Street: S LIBERTY DR
AT INTERSECTION WITH E Main St

6/3/2016 Fri 07:38 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36238377**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: LEFT TURN (WITH OTHER CAR) Weather: RAIN
Road Surface Condition: WET Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 51 Sex: M Citation Issued: N
Direction of Travel: SOUTH-WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: TURNING IMPROPER, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 2 Driver's Age: Sex: Citation Issued:
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: PARKED
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: Street: BEACH RD
76 Meters North of E MAIN ST

6/11/2016 Sat 01:04 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36251766**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 1
Type Of Accident: OTHER NON-COLLISION Traffic Control: NO PASSING ZONE
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: CURVE AND LEVEL Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 MOTORCYCLE Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: Sex: Citation Issued:

Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: NOT APPLICABLE, UNKNOWN

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011186 Street: N LIBERTY DR
AT INTERSECTION WITH RIDGE ST

6/17/2016 Fri 20:50 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36259792**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DUSK
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 39 Sex: F Citation Issued: N
Direction of Travel: NORTH-EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 62 Sex: F Citation Issued: N
Direction of Travel: NORTH-EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: BACKING
Apparent Factors: BACKING UNSAFELY, DRIVER INATTENTION

County: Rockland Muni: Stony Point(T) Ref. Marker: Street: E MAIN ST
44 Meters East of Lee Ave

7/10/2016 Sun 12:42 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36289901**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 1
Type Of Accident: COLLISION WITH BUILDING/WALL Traffic Control: NONE
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 2 Driver's Age: 22 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: BACKING
Apparent Factors: BRAKES DEFECTIVE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011188 Street: N LIBERTY DR
65 Meters North of Bayview Dr

7/16/2016 Sat 13:30 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2016-36297728**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: RIGHT ANGLE Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NJ
Num of Occupants: 3 Driver's Age: 33 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: NOT APPLICABLE, FAILURE TO YIELD RIGHT OF WAY

Veh :2 CAR/VAN/PICKUP Registered Weight: 3159 State of Registration: NY
Num of Occupants: 3 Driver's Age: 24 Sex: F Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011185 Street: N LIBERTY DR
46 Meters North of W MAIN ST
8/3/2016 Wed 15:06 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36326713**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: PA
Num of Occupants: 2 Driver's Age: 54 Sex: M Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 56 Sex: F Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011187 Street: N LIBERTY DR
AT INTERSECTION WITH 10 EYCK ST
8/6/2016 Sat 15:00 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: A **Case: 2016-36328449**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NO PASSING ZONE
Manner of Collision: LEFT TURN (AGAINST OTHER CAR) Weather: CLEAR
Road Surface Condition: DRY Road Char.: CURVE AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3547 State of Registration: NY
Num of Occupants: 2 Driver's Age: 54 Sex: F Citation Issued: N

Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 5362 State of Registration: NY

Num of Occupants: 1 Driver's Age: 69 Sex: M Citation Issued: N

Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: MAKING LEFT TURN

Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, TURNING IMPROPER

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011185 Street: N LIBERTY DR
AT INTERSECTION WITH W MAIN ST

8/11/2016 Thu 15:55 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36337418**

Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL

Manner of Collision: REAR END Weather: CLEAR

Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 OTHER Registered Weight: State of Registration:

Num of Occupants: 1 Driver's Age: Sex: Citation Issued: N

Direction of Travel: NOT ENTERED Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: NOT ENTERED

Apparent Factors: UNKNOWN, UNKNOWN

Veh :1 OTHER Registered Weight: State of Registration:

Num of Occupants: 1 Driver's Age: Sex: Citation Issued: N

Direction of Travel: NOT ENTERED Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: NOT ENTERED

Apparent Factors: UNKNOWN, UNKNOWN

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011185 Street: N LIBERTY DR
AT INTERSECTION WITH E MAIN ST

8/8/2016 Mon 23:30 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36343233**

Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL

Manner of Collision: REAR END Weather: CLEAR

Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY

Num of Occupants: 3 Driver's Age: 33 Sex: F Citation Issued: N

Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: STARTING IN TRAFFIC

Apparent Factors: PASSENGER DISTRACTION, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 35 Sex: M Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011184 Street: S LIBERTY DR
31 Meters South of Lowland Hl
9/8/2016 Thu 20:28 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36375620**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: LEFT TURN (AGAINST OTHER CAR) Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: CA
Num of Occupants: 1 Driver's Age: 24 Sex: M Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: NOT APPLICABLE, TURNING IMPROPER

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 50 Sex: F Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011184 Street: S LIBERTY DR
AT INTERSECTION WITH LOWLAND HL
9/19/2016 Mon 15:35 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36391999**
Accident Class: PROPERTY DAMAGE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLOUDY
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3455 State of Registration: NY
Num of Occupants: 1 Driver's Age: 44 Sex: F Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 4868 State of Registration: NY
Num of Occupants: 1 Driver's Age: 18 Sex: M Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: STOPPED IN TRAFFIC

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011187 Street: N LIBERTY DR
AT INTERSECTION WITH TOMKINS AVE

9/27/2016 Tue 12:10 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36400312**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NO PASSING ZONE
Manner of Collision: REAR END Weather: CLOUDY
Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 50 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 36 Sex: F Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION

County: Rockland Muni: Stony Point(T) Ref. Marker: Street: E MAIN ST
52 Meters East of JOHN ST

9/25/2016 Sun 03:10 AM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2016-36404346**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: STONY POINT TOWN PD Num of Veh: 1
Type Of Accident: COLLISION WITH GUIDE RAIL Traffic Control: NO PASSING ZONE
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3072 State of Registration: NY
Num of Occupants: 1 Driver's Age: 19 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, ANIMAL'S ACTION

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011185 Street: N LIBERTY DR
AT INTERSECTION WITH E MAIN ST

10/3/2016 Mon 19:38 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36409437**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: RIGHT ANGLE Weather: CLOUDY
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 2 Driver's Age: 25 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: TURNING IMPROPER, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 2 Driver's Age: 16 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011188 Street: N LIBERTY DR
65 Meters North of Bayview Dr
10/14/2016 Fri 13:05 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36423649**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: RIGHT ANGLE Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 2 Driver's Age: 81 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: BACKING
Apparent Factors: BACKING UNSAFELY, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 2 Driver's Age: 77 Sex: M Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: Street: TOMKINS AVE
AT INTERSECTION WITH WOOD AVE
12/1/2016 Thu 20:00 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36499746**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
Manner of Collision: RIGHT ANGLE Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: PA
Num of Occupants: 1 Driver's Age: 40 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: NOT APPLICABLE, VIEW OBSTRUCTED/LIMITED

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY

Num of Occupants: 1 Driver's Age: 33 Sex: M Citation Issued: N

Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: NOT APPLICABLE, VIEW OBSTRUCTED/LIMITED

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011185 Street: E MAIN ST
AT INTERSECTION WITH N LIBERTY DR

12/28/2016 Wed 13:57 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36540283**

Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL

Manner of Collision: REAR END Weather: CLOUDY

Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY

Num of Occupants: 1 Driver's Age: 36 Sex: F Citation Issued: N

Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: STARTING IN TRAFFIC

Apparent Factors: FOLLOWING TOO CLOSELY, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY

Num of Occupants: 1 Driver's Age: 57 Sex: M Citation Issued: N

Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: STOPPED IN TRAFFIC

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011184 Street: S LIBERTY DR
AT INTERSECTION WITH LOWLAND HL

12/23/2016 Fri 11:10 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36541529**

Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE

Manner of Collision: UNKNOWN Weather: CLEAR

Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3310 State of Registration: NY

Num of Occupants: 1 Driver's Age: 19 Sex: F Citation Issued: N

Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: MAKING RIGHT TURN

Apparent Factors: NOT ENTERED, NOT ENTERED

Veh :2 CAR/VAN/PICKUP Registered Weight: 3391 State of Registration: NY

Num of Occupants: 2 Driver's Age: 76 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT ENTERED, NOT ENTERED

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011184 Street: S LIBERTY DR
48 Meters South of Lowland Hl
1/5/2017 Thu 13:25 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: A **Case: 2017-36551467**
Accident Class: INJURY Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3391 State of Registration: NY
Num of Occupants: 1 Driver's Age: 88 Sex: M Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STARTING IN TRAFFIC
Apparent Factors: FOLLOWING TOO CLOSELY, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3307 State of Registration: NY
Num of Occupants: 1 Driver's Age: 41 Sex: M Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: Street: TOMKINS AVE
15 Meters West of HOOVER PL
1/7/2017 Sat 17:10 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36553377**
Accident Class: PROPERTY DAMAGE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NO PASSING ZONE
Manner of Collision: RIGHT ANGLE Weather: SNOW
Road Surface Condition: SNOW/ICE Road Char.: CURVE AND GRADE Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3970 State of Registration: NY
Num of Occupants: 1 Driver's Age: 49 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: PAVEMENT SLIPPERY, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3209 State of Registration: NY
Num of Occupants: 2 Driver's Age: Sex: Citation Issued:
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: PARKED

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011187 Street: N LIBERTY DR
AT INTERSECTION WITH TOMKINS AVE

1/10/2017 Tue 14:20 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36558340**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NO PASSING ZONE
Manner of Collision: LEFT TURN (AGAINST OTHER CAR) Weather: CLOUDY
Road Surface Condition: DRY Road Char.: CURVE AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 2 Driver's Age: 70 Sex: F Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 36 Sex: M Citation Issued: N
Direction of Travel: SOUTH-WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011186 Street: N LIBERTY DR
AT INTERSECTION WITH ROSE ST

1/27/2017 Fri 02:00 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36581907**
Accident Class: PROPERTY DAMAGE Police Agency: STONY POINT TOWN PD Num of Veh: 1
Type Of Accident: COLLISION WITH OTHER FIXED OBJECT Traffic Control: NONE
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3527 State of Registration: NY
Num of Occupants: 2 Driver's Age: Sex: Citation Issued:
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: UNSAFE SPEED, UNKNOWN

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011185 Street: N LIBERTY DR
30 Meters South of SMITH ST

2/3/2017 Fri 10:45 AM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2017-36592149**
Accident Class: INJURY Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NO PASSING ZONE
Manner of Collision: REAR END Weather: CLOUDY
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY

Num of Occupants: 3 Driver's Age: 38 Sex: F Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4979 State of Registration: NY
Num of Occupants: 2 Driver's Age: 47 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, BRAKES DEFECTIVE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011185 Street: N LIBERTY DR
AT INTERSECTION WITH E MAIN ST
2/25/2017 Sat 11:12 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36618279**
Accident Class: PROPERTY DAMAGE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLOUDY
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4345 State of Registration: NY
Num of Occupants: 2 Driver's Age: 41 Sex: M Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3151 State of Registration: NY
Num of Occupants: 1 Driver's Age: 81 Sex: F Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011185 Street: N LIBERTY DR
AT INTERSECTION WITH W MAIN ST
2/27/2017 Mon 14:25 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36632875**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLOUDY
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 2 Driver's Age: 90 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING

Apparent Factors: NOT APPLICABLE, FOLLOWING TOO CLOSELY

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 26 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011185 Street: N LIBERTY DR
70 Meters South of Smith St
3/8/2017 Wed 15:02 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36637609**
Accident Class: PROPERTY DAMAGE Police Agency: PALISADES REG NYS PARK POLICE Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NO PASSING ZONE
Manner of Collision: REAR END Weather: CLOUDY
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2356 State of Registration: NY
Num of Occupants: 4 Driver's Age: 29 Sex: F Citation Issued: Y
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: DRIVER INATTENTION, FOLLOWING TOO CLOSELY

Veh :2 CAR/VAN/PICKUP Registered Weight: 2519 State of Registration: NY
Num of Occupants: 1 Driver's Age: 37 Sex: F Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011186 Street: [Route] 9W
AT INTERSECTION WITH ROSE ST
2/23/2017 Thu 22:02 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36645761**
Accident Class: PROPERTY DAMAGE Police Agency: ROCKLAND CO SO Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: REAR END Weather: UNKNOWN
Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 6415 State of Registration: NY
Num of Occupants: 3 Driver's Age: 24 Sex: M Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: AGGRESSIVE DRIVING/ROAD RAGE, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: 2834 State of Registration: NY
Num of Occupants: 3 Driver's Age: 22 Sex: M Citation Issued: N

Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: NOT APPLICABLE, UNKNOWN

County: Rockland Muni: Stony Point(T) Ref. Marker: Street: E MAIN ST
22 Meters East of Lee Ave

3/16/2017 Thu 10:30 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36646174**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 45 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: BACKING
Apparent Factors: NOT APPLICABLE, BACKING UNSAFELY

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 50 Sex: F Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: ENTERING PARKED POSITION
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: Street: W MAIN ST
15 Meters West of N LIBERTY DR

3/16/2017 Thu 13:20 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36646178**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: RIGHT ANGLE Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 42 Sex: M Citation Issued: Y
Direction of Travel: NORTH-WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING RIGHT TURN
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 71 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: FOLLOWING TOO CLOSELY, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011184 Street: S LIBERTY DR
61 Meters South of LOWLAND HL
3/17/2017 Fri 21:25 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36647157**
Accident Class: PROPERTY DAMAGE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: RIGHT ANGLE Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 2558 State of Registration: NY
Num of Occupants: 1 Driver's Age: 19 Sex: F Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: NOT APPLICABLE, VIEW OBSTRUCTED/LIMITED

Veh :1 CAR/VAN/PICKUP Registered Weight: 3962 State of Registration: NY
Num of Occupants: 3 Driver's Age: 28 Sex: M Citation Issued: Y
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: Street: BEACH RD
46 Meters North of E MAIN ST
4/9/2017 Sun 15:30 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36678579**
Accident Class: PROPERTY DAMAGE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: HEAD ON Weather: CLEAR
Road Surface Condition: DRY Road Char.: CURVE AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3369 State of Registration: NY
Num of Occupants: 1 Driver's Age: 23 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: UNSAFE SPEED, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3248 State of Registration: NY
Num of Occupants: 2 Driver's Age: 25 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: Street: TOMKINS AVE
AT INTERSECTION WITH DEPOT PL
4/20/2017 Thu 13:57 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36693536**

Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 1
Type Of Accident: COLLISION WITH BRIDGE STRUCTURE Traffic Control: NONE
Manner of Collision: OTHER Weather: CLOUDY
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 OTHER Registered Weight: State of Registration: IA
Num of Occupants: 1 Driver's Age: 55 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: VIEW OBSTRUCTED/LIMITED, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011185 Street: N LIBERTY DR
AT INTERSECTION WITH E MAIN ST
5/2/2017 Tue 08:45 AM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2017-36707672**
Accident Class: INJURY Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLOUDY
Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 4168 State of Registration: NY
Num of Occupants: 1 Driver's Age: 67 Sex: F Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2588 State of Registration: NY
Num of Occupants: 1 Driver's Age: 49 Sex: M Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: FOLLOWING TOO CLOSELY, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011187 Street: N LIBERTY DR
AT INTERSECTION WITH TENEYCK ST
5/2/2017 Tue 14:28 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36707692**
Accident Class: PROPERTY DAMAGE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NO PASSING ZONE
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: CURVE AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 2337 State of Registration: NY
Num of Occupants: 1 Driver's Age: 29 Sex: F Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 TRUCK Registered Weight: 25999 State of Registration: NY
Num of Occupants: 1 Driver's Age: 37 Sex: M Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: FOLLOWING TOO CLOSELY, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011184 Street: S LIBERTY DR
AT INTERSECTION WITH E MAIN ST
5/17/2017 Wed 19:07 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36726698**
Accident Class: PROPERTY DAMAGE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: OVERTAKING Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DUSK
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4420 State of Registration: NY
Num of Occupants: 1 Driver's Age: 80 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: 2834 State of Registration: NY
Num of Occupants: 1 Driver's Age: 25 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING RIGHT TURN
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011185 Street: N LIBERTY DR
AT INTERSECTION WITH W MAIN ST
6/16/2017 Fri 06:20 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36766927**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: LEFT TURN (AGAINST OTHER CAR) Weather: CLOUDY
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 83 Sex: F Citation Issued: N
Direction of Travel: NORTH-WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: DRIVER INATTENTION, FAILURE TO YIELD RIGHT OF WAY

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 62 Sex: F Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011185 Street: N LIBERTY DR
59 Meters North of E Main St

6/22/2017 Thu 09:20 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36779378**
Accident Class: NON-REPORTABLE Police Agency: PALISADES SP Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 23 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: FOLLOWING TOO CLOSELY, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 68 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011184 Street: S LIBERTY DR
15 Meters North of LOWLAND HL

7/13/2017 Thu 14:33 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36806244**
Accident Class: PROPERTY DAMAGE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: RIGHT TURN (WITH OTHER CAR) Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2321 State of Registration: NY
Num of Occupants: 1 Driver's Age: 46 Sex: M Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3603 State of Registration: NY
Num of Occupants: 1 Driver's Age: 69 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING RIGHT TURN
Apparent Factors: NOT APPLICABLE, FAILURE TO YIELD RIGHT OF WAY

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011184 Street: S LIBERTY DR
AT INTERSECTION WITH E Main St

8/1/2017 Tue 08:58 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36830829**
Accident Class: PROPERTY DAMAGE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NO PASSING ZONE
Manner of Collision: RIGHT TURN (WITH OTHER CAR) Weather: CLEAR
Road Surface Condition: DRY Road Char.: CURVE AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3504 State of Registration: NY
Num of Occupants: 1 Driver's Age: 58 Sex: M Citation Issued: N
Direction of Travel: SOUTH-WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING RIGHT TURN
Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 7200 State of Registration: NY
Num of Occupants: 2 Driver's Age: 33 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011184 Street: S LIBERTY DR
AT INTERSECTION WITH LOWLAND HL

8/6/2017 Sun 11:22 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36837757**
Accident Class: PROPERTY DAMAGE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: RIGHT ANGLE Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3199 State of Registration: NY
Num of Occupants: 1 Driver's Age: 22 Sex: F Citation Issued: N
Direction of Travel: SOUTH-WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: OTHER
Apparent Factors: NOT APPLICABLE, DRIVERLESS/RUNAWAY VEHICLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3058 State of Registration: NY
Num of Occupants: 1 Driver's Age: Sex: Citation Issued:
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: PARKED
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011184 Street: S LIBERTY DR
61 Meters South of LOWLAND HL

8/16/2017 Wed 15:49 PM Persons Killed: 1 Persons Injured: 0 Extent of Injuries: K **Case: 2017-36851665**
Accident Class: FATAL Police Agency: STONY POINT TOWN PD Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: OTHER
Manner of Collision: SIDESWIPE Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3329 State of Registration: NY
Num of Occupants: 1 Driver's Age: 89 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: TRAFFIC CONTROL DEVICES DISREGARDED, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: 2333 State of Registration: NY
Num of Occupants: 1 Driver's Age: 20 Sex: M Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011187 Street: N LIBERTY DR
AT INTERSECTION WITH TOMKINS AVE
8/19/2017 Sat 23:07 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36857188**
Accident Class: PROPERTY DAMAGE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NO PASSING ZONE
Manner of Collision: SIDESWIPE Weather: CLEAR
Road Surface Condition: DRY Road Char.: CURVE AND LEVEL Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3627 State of Registration: NY
Num of Occupants: 2 Driver's Age: 46 Sex: M Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3228 State of Registration: NY
Num of Occupants: 1 Driver's Age: 17 Sex: M Citation Issued: Y
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, FAILURE TO KEEP RIGHT

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011186 Street: N LIBERTY DR
AT INTERSECTION WITH RIDGE ST
8/22/2017 Tue 16:05 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36859432**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NO PASSING ZONE
Manner of Collision: OVERTAKING Weather: CLEAR
Road Surface Condition: DRY Road Char.: CURVE AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 TRUCK Registered Weight: State of Registration: NY
Num of Occupants: 2 Driver's Age: Sex: Citation Issued:
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: PARKED
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 54 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: OVERTAKING
Apparent Factors: NOT APPLICABLE, PASSING OR LANE USAGE IMPROPERLY

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011184 Street: N LIBERTY DR
AT INTERSECTION WITH E Main St
8/23/2017 Wed 13:35 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36861075**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: OVERTAKING Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NJ
Num of Occupants: 1 Driver's Age: 58 Sex: F Citation Issued: N
Direction of Travel: NORTH-EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING RIGHT TURN
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 34 Sex: F Citation Issued: N
Direction of Travel: NORTH-EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING RIGHT TURN
Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011187 Street: N LIBERTY DR
AT INTERSECTION WITH TENEYCK ST
8/25/2017 Fri 10:35 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36863386**
Accident Class: PROPERTY DAMAGE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2858 State of Registration: NY
Num of Occupants: 1 Driver's Age: 18 Sex: F Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: MAKING RIGHT TURN

Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3687 State of Registration: NY

Num of Occupants: 1 Driver's Age: 68 Sex: F Citation Issued: N

Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: STOPPED IN TRAFFIC

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011184 Street: S LIBERTY DR
1 Meters South of E Main St

9/9/2017 Sat 12:22 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36881820**

Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE

Manner of Collision: RIGHT ANGLE Weather: CLEAR

Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: MD

Num of Occupants: 2 Driver's Age: 21 Sex: M Citation Issued: N

Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: BACKING

Apparent Factors: BACKING UNSAFELY, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY

Num of Occupants: 2 Driver's Age: 81 Sex: M Citation Issued: N

Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: Street: W MAIN ST
40 Meters East of Jay St

9/17/2017 Sun 15:55 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36892777**

Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE

Manner of Collision: HEAD ON Weather: CLEAR

Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY

Num of Occupants: 3 Driver's Age: 73 Sex: M Citation Issued: N

Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: MAKING LEFT TURN

Apparent Factors: GLARE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY

Num of Occupants: 1 Driver's Age: 29 Sex: F Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011186 Street: N LIBERTY DR
AT INTERSECTION WITH RIDGE ST
10/20/2017 Fri 16:58 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36939722**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: CURVE AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 59 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: UNKNOWN, TIRE FAILURE/INADEQUATE

Veh :2 TRUCK Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 53 Sex: M Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011185 Street: N LIBERTY DR
AT INTERSECTION WITH E MAIN ST
10/23/2017 Mon 19:49 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36944379**
Accident Class: PROPERTY DAMAGE Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLOUDY
Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3452 State of Registration: NY
Num of Occupants: 1 Driver's Age: 46 Sex: F Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 5121 State of Registration: NY
Num of Occupants: 1 Driver's Age: 25 Sex: M Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011187 Street: N LIBERTY DR
12 Meters North of 10 EYCK ST
10/24/2017 Tue 10:50 AM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2017-36947557**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: STONY POINT TOWN PD Num of Veh: 1
Type Of Accident: OVERTURNED Traffic Control: NO PASSING ZONE
Manner of Collision: OTHER Weather: RAIN
Road Surface Condition: WET Road Char.: CURVE AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3240 State of Registration: NY
Num of Occupants: 1 Driver's Age: 21 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: PAVEMENT SLIPPERY, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: Street: E MAIN ST
61 Meters West of HUDSON AVE
11/15/2017 Wed 16:00 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36985497**
Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 1
Type Of Accident: COLLISION WITH ANIMAL Traffic Control: NO PASSING ZONE
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 3 Driver's Age: 46 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: ANIMAL'S ACTION, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011184 Street: N LIBERTY DR
AT INTERSECTION WITH E Main St
12/24/2017 Sun 15:25 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2017-37048311**
Accident Class: INJURY Police Agency: STONY POINT TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3481 State of Registration: NY
Num of Occupants: 2 Driver's Age: 57 Sex: M Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3330 State of Registration: NY

Num of Occupants: 1 Driver's Age: 53 Sex: M Citation Issued: N

Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: NOT APPLICABLE, FOLLOWING TOO CLOSELY

County: Rockland Muni: Stony Point(T) Ref. Marker: 9W85011185 Street: N LIBERTY DR
15 Meters North of E MAIN ST

11/16/2017 Thu 18:26 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2017-37355552**

Accident Class: INJURY Police Agency: STONY POINT TOWN PD Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL

Manner of Collision: REAR END Weather: CLEAR

Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3547 State of Registration: NY

Num of Occupants: 1 Driver's Age: 24 Sex: M Citation Issued: N

Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: STARTING IN TRAFFIC

Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3349 State of Registration: NY

Num of Occupants: 3 Driver's Age: 41 Sex: F Citation Issued: N

Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: STOPPED IN TRAFFIC

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Rockland Muni: Stony Point(T) Ref. Marker: Street: E MAIN ST
21 Meters East of WOOD AVE

8/5/2017 Sat 18:41 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-37355643**

Accident Class: NON-REPORTABLE Police Agency: STONY POINT TOWN PD Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE

Manner of Collision: OVERTAKING Weather: CLEAR

Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY

Num of Occupants: 1 Driver's Age: 43 Sex: M Citation Issued: N

Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: ALCOHOL INVOLVEMENT, ALCOHOL INVOLVEMENT

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY

Num of Occupants: 2 Driver's Age: Sex: Citation Issued:

Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: PARKED

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Edward Finn

From: Joan Skinner [JSkinner@townofstonypoint.org]
Sent: Thursday, April 25, 2019 2:28 PM
To: Edward Finn
Subject: FW: New Foil Request Submitted

Please see FOIL request below

Joan Skinner-Town Clerk
Town of Stony Point
74 East Main Street
Stony Point, NY 10980
(845)786-2716 x108
(845)786-2783 fax

From: stonypoint@townofstonypoint.org [mailto:stonypoint@townofstonypoint.org]
Sent: Thursday, April 25, 2019 2:19 PM
To: Joan Skinner
Subject: New Foil Request Submitted

to_inspect_records: copies of accident reports at the Beach Road and Hudson Drive intersection including the Tomkins Ave trestle for the years of 2009 to 2011 and 2016 to 2019
send_via_email: 1
copies:
signature: Atzl Nasher & Zigler David Zigler
printed_name: dzigler@anzny.com
address: 234 north main street
city: New City, NY 10956
daytime_phone: 8456344694

New York State
Department of Motor Vehicles
POLICE ACCIDENT REPORT
MV-104AC (7/01)

*EXPLAIN IN ACCIDENT DESCRIPTION
If a question DOES NOT APPLY, enter a dash (–).
If an answer is UNKNOWN, enter an "X".

1 — PEDESTRIAN/BICYCLIST/OTHER PEDESTRIAN LOCATION
1. Pedestrian/Bicyclist/Other Pedestrian at Intersection
2. Pedestrian/Bicyclist/Other Pedestrian Not at Intersection

2 — PEDESTRIAN/BICYCLIST/OTHER PEDESTRIAN ACTION
1. Crossing, With Signal
2. Crossing, Against Signal
3. Crossing, No Signal, Marked Crosswalk
4. Crossing, No Signal or Crosswalk
5. Riding/Walking/Skating Along Highway With Traffic
6. Riding/Walking/Skating Along Highway Against Traffic
7. Emerging from in Front of/Behind Parked Vehicle
8. Going to/From Stopped School Bus
9. Getting On/Off Vehicle Other Than School Bus
11. Working in Roadway
12. Playing in Roadway
13. Other Actions in Roadway *
14. Not in Roadway (Indicate) *

3 — TRAFFIC CONTROL
1. None
2. Traffic Signal
3. Stop Sign
4. Flashing Light
5. Yield Sign
6. Officer/Guard
7. No Passing Zone
8. RR Crossing Sign
9. RR Crossing Flashing Light
10. RR Crossing Gates
11. Stopped School Bus-Red Lights Flashing
12. Construction Work Area
13. Maintenance Work Area
14. Utility Work Area
15. Police/Fire Emergency
16. School Zone
20. Other *

4 — LIGHT CONDITIONS
1. Daylight
2. Dawn
3. Dusk
4. Dark-Road Lighted
5. Dark-Road Unlighted

5 — ROADWAY CHARACTER
1. Straight and Level
2. Straight and Grade
3. Straight at Hillcrest
4. Curve and Level
5. Curve and Grade
6. Curve at Hillcrest

6 — ROADWAY SURFACE CONDITION
1. Dry
2. Wet
3. Muddy
4. Snow/Ice
5. Slush
6. Flooded
0. Other *

7 — WEATHER
1. Clear
2. Cloudy
3. Rain
4. Snow
5. Sleet/Hail/Freezing Rain
6. Fog/Smog/Smoke
0. Other *

8 — WHICH VEHICLE OCCUPIED
1. Vehicle No. 1
2. Vehicle No. 2
A. All-Terrain Vehicle (ATV)
B. Bicyclist
I. In-Line Skater
O. Other *
P. Pedestrian
S. Snowmobiler

9 — POSITION IN/ON VEHICLE
1. Driver
2-7. Passengers
8. Riding/Hanging on Outside

10 — SAFETY EQUIPMENT USED
1. None
2. Lap Belt
3. Harness
4. Lap Belt/Harness
5. Child Restraint Only
6. Helmet (Motorcycle Only)
7. Air Bag Deployed
8. Air Bag Deployed/Lap Belt
9. Air Bag Deployed/Harness
A. Air Bag Deployed/Lap Belt/Harness
B. Air Bag Deployed/Child Restraint

In-Line Skater/ Bicyclist
C. Helmet Only
D. Helmet/Other
E. Pads Only
F. Stoppers Only

0. Other *

11 — EJECTION FROM VEHICLE
1. Not Ejected
2. Partially Ejected
3. Ejected

12 AGE
13 SEX M/F

14 — LOCATION OF MOST SEVERE PHYSICAL COMPLAINT
1. Head
2. Face
3. Eye
4. Neck
5. Chest
6. Back
7. Shoulder-Upper Arm
8. Elbow-Lower Arm-Hand
9. Abdomen - Pelvis
10. Hip-Upper Leg
11. Knee-Lower Leg-Foot
12. Entire Body

15 — TYPE OF PHYSICAL COMPLAINT
1. Amputation
2. Concussion
3. Internal
4. Minor Bleeding
5. Severe Bleeding
6. Minor Burn
7. Moderate Burn
8. Severe Burn
9. Fracture - Dislocation
10. Contusion - Bruise
11. Abrasion
12. Complaint of Pain
13. None Visible
14. Whiplash

16 — VICTIM'S PHYSICAL AND EMOTIONAL STATUS
1. Apparent Death
2. Unconscious
3. Semiconscious
4. Incoherent
5. Shock
6. Conscious

INJURED TAKEN 17 BY | TO 18

APPARENT CONTRIBUTING FACTORS

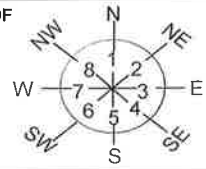
Human
2. Alcohol Involvement
3. Backing Unsafely
4. Driver Inattention/Distraction*
5. Driver Inexperience*
6. Drugs (Illegal)
7. Failure to Yield Right-of-Way
27. Failure to Keep Right
21. Fatigued/Drowsy
8. Fell Asleep
9. Following Too Closely
10. Illness
11. Lost Consciousness
12. Passenger Distraction
13. Passing or Lane Usage Improper
14. Pedestrian/Bicyclist/Other Pedestrian Error/Confusion
15. Physical Disability
16. Prescription Medication
17. Traffic Control Disregarded
18. Turning Improperly
19. Unsafe Speed
20. Unsafe Lane Changing
22. Cell Phone (hand-held)
23. Cell Phone (hands-free)
24. Other Electronic Device*
25. Outside Car Distraction*
26. Reaction to Other Uninvolved Vehicle
28. Aggressive Driving/Road Rage

Vehicular
41. Accelerator Defective
42. Brakes Defective
43. Headlights Defective
44. Other Lighting Defects
45. Oversized Vehicle
46. Steering Failure
47. Tire Failure/Inadequate
48. Tow Hitch Defective
49. Windshield Inadequate
50. Driverless/Runaway Vehicle
60. Other Vehicular*

Environmental
61. Animal's Action
62. Glare
63. Lane Marking Improper/ Inadequate
64. Obstruction/Debris
65. Pavement Defective
66. Pavement Slippery
67. Shoulders Defective/ Improper
68. Traffic Control Device Improper/Non-Working
69. View Obstructed/Limited

Vehicle 1 19
Vehicle 1 20
Vehicle 2 21
Vehicle 2 22

DIRECTION OF VEHICLE:



Vehicle 1 23
Vehicle 2 24

PRE-ACCIDENT VEHICLE ACTION
1. Going Straight Ahead
2. Making Right Turn
16. Making Right Turn on Red
3. Making Left Turn
17. Making Left Turn on Red
4. Making U Turn
5. Starting from Parking
6. Starting in Traffic
7. Slowing or Stopping
8. Stopped in Traffic
9. Entering Parked Position
10. Parked
11. Avoiding Object in Roadway
12. Changing Lanes
13. Passing
14. Merging
15. Backing
18. Police Pursuit
20. Other *

Vehicle 1 25
Vehicle 2 26

27 — LOCATION OF FIRST EVENT
1. On Roadway
2. Off Roadway

28 — TYPE OF ACCIDENT -- COLLISION WITH
1. Other Motor Vehicle
2. Pedestrian
3. Bicyclist
4. Animal
5. Railroad Train
6. In-Line Skater
7. Deer
8. Other Pedestrian
10. Other Object (Not Fixed)*

COLLISION WITH FIXED OBJECT
11. Light Support/Utility Pole
12. Guide Rail-Not At End
25. Guide Rail-End
13. Crash Cushion
14. Sign Post
15. Tree
16. Building/Wall
17. Curbing
18. Fence
19. Bridge Structure
20. Culvert/Head Wall
21. Median-Not At End
26. Median-End
27. Barrier
22. Snow Embankment
23. Earth Embankment/Rock Cut/Ditch
24. Fire Hydrant
30. Other Fixed Object*

NO COLLISION
31. Overturned
32. Fire/Explosion
33. Submersion
34. Ran Off Roadway Only
40. Other*

First Event
SECOND EVENT
Vehicle 1 29
Vehicle 2 30

COVER SHEET
N

Page 1 of 1 Pages

Local Codes: 09-1790 / PDAA-80-09

New York State Department of Motor Vehicles

POLICE ACCIDENT REPORT

MV-104A (6/04)

☐ AMENDED REPORT POLICE COPY 1

Accident Date Month	Day	Year	Day of Week	Military Time	No. of Vehicles	No. Injured	No. Killed	Not Investigated at Scene ☐ / Accident Reconstructed ☐	Left Scene	Police Photos
4	9	09	THURS	2224	1	0	0		☐	☐ Yes ☒ No

VEHICLE 1

VEHICLE 1 - Driver License ID Number: 229 604 896 State of Lic.: NY

Driver Name - exactly as printed on license: Thurston, Kristopher

Address (Include Number & Street): 106 Bridge St. Apt. No.:

City or Town: Garnerville State: NY Zip Code: 10923

Date of Birth: Month 1 Day 31 Year 85 Sex: M Unlicensed ☐ No. of Occupants: 1 Public Property Damaged ☐

Name–exactly as printed on registration: Apfel Jamie L Sex: F Date of Birth: Month 6 Day 6 Year 76

Address (Include Number & Street): 33 Main St. Apt. No.: Haz. Mat Code: Released ☐

City or Town: Garnerville State: NY Zip Code: 10923

Plate Number: EGR9333 State of Reg.: NY Vehicle Year & Make: 1996 Jeep Vehicle Type: SUBN Ins. Code: 646

Ticket/Arrest Number(s): SQD100RTMZ, SQD100RUMZ, SQD100RWMZ, SQD100RXMZ

Violation Section(s): 1192.3, 1192.2a, 1172a, 509.2

VEHICLE 1 — Check if involved vehicle is:
☐ more than 95 inches wide;
☐ more than 34 feet long;
☐ operated with an overweight permit;
☐ operated with an overdimension permit.

VEHICLE 1 DAMAGE CODES

Box 1 - Point of Impact	2		
Box 2 - Most Damage	2		
Enter up to three more Damage Codes	3	4	5
	1	3	12

Vehicle Towed: By D+K Towing To D+K Towing

VEHICLE 2

☒ VEHICLE 2 ☐ BICYCLIST ☐ PEDESTRIAN ☐ OTHER PEDESTRIAN

VEHICLE 2 - Driver License ID Number: State of Lic.:

Driver Name - exactly as printed on license:

Address (Include Number & Street): Apt. No.:

City or Town: State: Zip Code:

Date of Birth: Month Day Year Sex: Unlicensed ☐ No. of Occupants: Public Property Damaged ☐

Name–exactly as printed on registration: Sex: Date of Birth: Month Day Year

Address (Include Number & Street): Apt. No.: Haz. Mat. Code: Released ☐

City or Town: State: Zip Code:

Plate Number: State of Reg.: Vehicle Year & Make: Vehicle Type: Ins. Code:

Ticket/Arrest Number(s):

Violation Section(s):

VEHICLE 2 — Check if involved vehicle is:
☐ more than 95 inches wide;
☐ more than 34 feet long;
☐ operated with an overweight permit;
☐ operated with an overdimension permit.

VEHICLE 2 DAMAGE CODES

Box 1 - Point of Impact	1	2	
Box 2 - Most Damage			
Enter up to three more Damage Codes	3	4	5
	NONE		

Vehicle Towed: By To

Circle the diagram below that describes the accident, or draw your own diagram in space #9. Number the vehicles.

Rear End 1. Left Turn 3. Right Angle 4. Right Turn 5. Head On 7. Sideswipe (same direction) 2. Left Turn 0. Right Turn 6. Sideswipe (opposite direction) 8.

ACCIDENT DIAGRAM

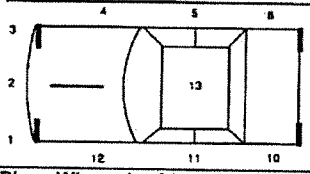
#7

9.

VEHICLE DAMAGE CODING:

1-13. SEE DIAGRAM ON RIGHT.

14. UNDERCARRIAGE
15. TRAILER
16. OVERTURNED
17. DEMOLISHED
18. NO DAMAGE
19. OTHER



Cost of repairs to any one vehicle will be more than $1000.
☐ Unknown/Unable to Determine ☒ Yes ☐ No

Reference Marker

Coordinates (if available)
Latitude/Northing:
Longitude/Easting:

Place Where Accident Occurred:
County Rockland ☐ City ☐ Village ☒ Town of Stony Point
Road on which accident occurred Beach Rd. (Route Number or Street Name)
at 1) intersecting street Hudson Dr (Route Number or Street Name)
or 2) Feet Miles ☐N ☐S ☐E ☐W of (Milepost, Nearest intersecting Route Number or Street Name)

Accident Description/Officer's Notes: Veh. 1 was travelling N/B on Beach Rd when Driver 1 failed to stop at a stop sign causing veh 1 to hit a tree at the intersection of Hudson Dr/Beach Rd. No injuries reported at scene. Driver 1 arrested for driving while Intoxicated.

USE COVER SHEET N

	8	9	10	11	12	13	14	15	16	17 BY	TO 18	Names of all involved	Date of Death Only
A	1	1	4	1	24	M	—	—	—	—	—	Kristopher Thurston	—
B													
C													
D													
E													
F													

Officer's Rank and Signature	Print Name in Full	Badge/ID No.	NCIC No.	Precinct/Post Troop/Zone	Station/Beat/Sector	Reviewing Officer	Date/Time Reviewed
PO	Keith T. Hansen	661	0435 1100	601	A1	S/Sgt	04/10/09 1640 hrs

Local Codes
PDAA-027-10-0482
MZ6091000002

New York State Department of Motor Vehicles

POLICE ACCIDENT REPORT

MV-104A (3/04)

☐ AMENDED REPORT

19: 3

Accident Date Month	Day	Year	Day of Week	Military Time	No. of Vehicles	No. Injured	No. Killed	Not Investigated at Scene ☐ / Accident Reconstructed ☐	Left Scene ☐	Police Photos ☐ Yes ☒ No
1	28	2010	Thursday	12:35	2	0	0			

20: –

VEHICLE 1

VEHICLE 1 - Driver License ID Number: 485522876 — State of Lic.: NY
Driver Name - exactly as printed on license: FERGUSON, KRISTIN
Address (Include Number and Street): 6 ELM ST — Apt. No.:
City or Town: GARNERVILLE — State: NY — Zip Code: 10923
Date of Birth: Month 11, Day 25, Year 1964 — Sex: F — Unlicensed ☐ — No. of Occupants: 01 — Public Property Damaged ☐
Name - exactly as printed on registration: FERGUSON, KRISTIN — Sex: F — Date of Birth: Month 11, Day 25, Year 1964
Address (Include Number and Street): 6 ELM ST — Apt. No.: — Haz. Mat. Code: – — Released ☐
City or Town: GARNERVILLE — State: NY — Zip Code: 10923
Plate Number: CZB9678 — State of Reg.: NY — Vehicle Year & Make: 2004 HYUN — Vehicle Type: 4DSD — Ins. Code: 011
Ticket/Arrest Number(s):
Violation Section(s):

☒ VEHICLE 2 ☐ BICYCLIST ☐ PEDESTRIAN ☐ OTHER PEDESTRIAN

VEHICLE 2 - Driver License ID Number: 929297914 — State of Lic.: NY
Driver Name - exactly as printed on license: SOHI, NARINDERJIT K
Address (Include Number and Street): 160 N MAIN ST 30B — Apt. No.:
City or Town: NEW CITY — State: NY — Zip Code: 10956
Date of Birth: Month 3, Day 2, Year 1977 — Sex: F — Unlicensed ☐ — No. of Occupants: 01 — Public Property Damaged ☐
Name - exactly as printed on registration: SOHI, NARINDERJIT K — Sex: F — Date of Birth: Month 3, Day 2, Year 1977
Address (Include Number and Street): 160 N MAIN ST 30B — Apt. No.: — Haz. Mat. Code: – — Released ☐
City or Town: NEW CITY — State: NY — Zip Code: 10956
Plate Number: EJW9620 — State of Reg.: NY — Vehicle Year & Make: 1997 HOND — Vehicle Type: 4DSD — Ins. Code: 328
Ticket/Arrest Number(s):
Violation Section(s):

21: –
22: –
23: 3
24: 1

2: –
3: 1
4: 1
5: 1

6: 2

VEHICLE 1 — Check if involved vehicle is:
☐ more than 95 inches wide;
☐ more than 34 feet long;
☐ operated with an overweight permit;
☐ operated with an overdimension permit.

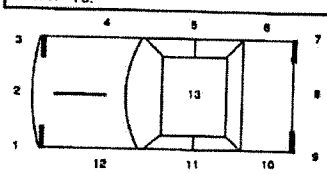
VEHICLE 1 DAMAGE CODES
Box 1 - Point of Impact: 9 (1)
Box 2 - Most Damage: 9 (2)
Enter up to three more damage codes: 3 4 5
Vehicle Bv: Towed: To:

VEHICLE 2 — Check if involved vehicle is:
☐ more than 95 inches wide;
☐ more than 34 feet long;
☐ operated with an overweight permit;
☐ operated with an overdimension permit.

VEHICLE 2 DAMAGE CODES
Box 1 - Point of Impact: 11 (1)
Box 2 - Most Damage: 11 (2)
Enter up to three more damage codes: 3: 12 4 5
Vehicle Bv: Towed: To:

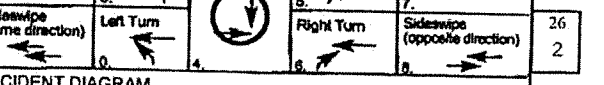
7: 2

VEHICLE DAMAGE CODING:
1-13 SEE DIAGRAM ON RIGHT.
14. UNDERCARRIAGE
15. TRAILER
16. OVERTURNED
17. DEMOLISHED
18. NO DAMAGE
19. OTHER



25: 15

Circle the diagram below that describes the accident, or draw your own diagram in space #9. Number the vehicles.



26: 2

ACCIDENT DIAGRAM
9.

27: 1

Cost of repairs to any one vehicle will be more than $1000.
☒ Unknown/Unable to determine ☐ Yes ☐ No

28: 1

Reference Marker
Coordinates (if available)
Lattitude/Northing:
Longitude/Easting:

Place Where Accident Occurred:
County ROCKLAND ☐ City ☐ Village ☒ Town of STONY POINT
Road on which accident occurred TOMKINS AV (Route Number or Street Name)
at 1) intersecting street (Route Number or Street Name)
or 2) 200 feet miles ☐N ☐S ☐E ☒W of DEPOT PLACE (Milepost, Nearest Intersecting Route Number or Street Name)

29

Accident Description/Officer's notes
VEHICLE #1 WAS BACKING UP EAST ON TOMKINS AVE AND COLLIDED INTO VEHICLE #2 WHICH WAS TURNING INTO A DRIVEWAY IN A NORTHERLY DIRECTION.

30

USE COVER SHEET

N

ALL INVOLVED

	8	9	10	11	12	13	14	15	16	17 BY	TO 18	Names of all involved	Date of Death Only
A	1	1	4	1	45	F	–	–	–			FERGUSON, KRISTIN	
B	2	1	4	1	32	F	–	–	–			SOHI, NARINDERJIT K	
C													
D													
E													
F													

Officer's Rank and Signature	Badge/ID No.	NCIC No.	Precinct/Post Troop/Zone	Station/Beat Sector	Reviewing Officer	Date/Time Reviewed
P.O. John J Wood	657	04354	A1	601	HYLAS, DANIEL J	1/29/2010 19:16

Print Name in Full: JOHN J WOOD

New York State Department of Motor Vehicles

POLICE ACCIDENT REPORT

MV-104A (3/04)

Local Codes: PDAA-162-10-4442 / MZ6091000011

☐ AMENDED REPORT

Accident Date Month	Day	Year	Day of Week	Military Time	No. of Vehicles	No. Injured	No. Killed	Not Investigated at Scene ☐ / Accident Reconstructed ☐	Left Scene	Police Photos ☐ Yes ☒ No
7	24	2010	Saturday	19:30	2	0	0		☐	

VEHICLE 1	VEHICLE 2 (☒ VEHICLE 2 ☐ BICYCLIST ☐ PEDESTRIAN ☐ OTHER PEDESTRIAN)
VEHICLE 1 - Driver License ID Number: 946205208	State of Lic.: NY
Driver Name - exactly as printed on license: HARLEY, JOSEPH P	Driver Name - exactly as printed on license: BROOKS, KATHLEEN A
Address (Include Number and Street): 24 HUNTER PL	Address (Include Number and Street): 41 BEACH RD
Apt. No.	Apt. No.
City or Town: STONY POINT	City or Town: STONY POINT
State: NY	State: NY
Zip Code: 10980	Zip Code: 10980
Date of Birth: Month 2 Day 20 Year 1981	Date of Birth: Month 9 Day 12 Year 1947
Sex: M	Sex: F
Unlicensed: ☐	Unlicensed: ☐
No. of Occupants: 02	No. of Occupants: 01
Public Property Damaged: ☐	Public Property Damaged: ☐
Name - exactly as printed on registration: HARLEY, JOSEPH P	Name - exactly as printed on registration: BROOKS, KATHLEEN A
Sex:	Sex: F
Date of Birth: Month 2 Day 20 Year 1981	Date of Birth: Month 9 Day 12 Year 1947
Address (Include Number and Street): 24 HUNTER PL	Address (Include Number and Street): 41 BEACH RD
Apt. No.	Apt. No.
Haz. Mat. Code: –	Haz. Mat. Code: –
Released: ☐	Released: ☐
City or Town: STONY POINT	City or Town: STONY POINT
State: NY	State: NY
Zip Code: 10980	Zip Code: 10980
Plate Number: DEE4748	Plate Number: FBD7245
State of Reg.: NY	State of Reg.: NY
Vehicle Year & Make: 2002 HOND	Vehicle Year & Make: 2008 FORD
Vehicle Type: 2DSD	Vehicle Type: SUBN
Ins. Code: 478	Ins. Code: 011
Ticket/Arrest Number(s):	Ticket/Arrest Number(s):
Violation Section(s):	Violation Section(s):

VEHICLE 1

Check if involved vehicle is:
- ☐ more than 95 inches wide;
- ☐ more than 34 feet long;
- ☐ operated with an overweight permit;
- ☐ operated with an overdimension permit.

VEHICLE 1 DAMAGE CODES

Box 1 - Point of Impact	6[1]		
Box 2 - Most Damage	6[2]		
Enter up to three more damage codes	3	4	5

Vehicle Bv Towed: To:

VEHICLE 2

Check if involved vehicle is:
- ☐ more than 95 inches wide;
- ☐ more than 34 feet long;
- ☐ operated with an overweight permit;
- ☐ operated with an overdimension permit.

VEHICLE 2 DAMAGE CODES

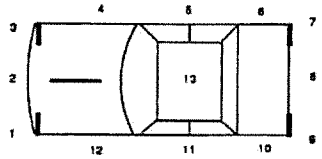
Box 1 - Point of Impact	2[1]		
Box 2 - Most Damage	2[2]		
Enter up to three more damage codes	3	4	5

Vehicle Bv Towed: To:

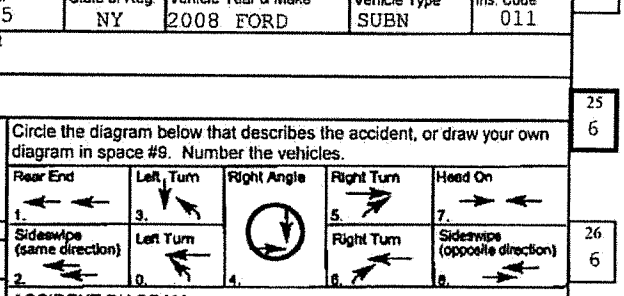
VEHICLE DAMAGE CODING:

1-13 SEE DIAGRAM ON RIGHT.

14. UNDERCARRIAGE
15. TRAILER
16. OVERTURNED
17. DEMOLISHED
18. NO DAMAGE
19. OTHER



Circle the diagram below that describes the accident, or draw your own diagram in space #9. Number the vehicles.



ACCIDENT DIAGRAM

See the last page of the MV-104A for the accident diagram.

9.

Cost of repairs to any one vehicle will be more than $1000.
☒ Unknown/Unable to determine ☐ Yes ☐ No

Reference Marker	Coordinates (if available)
	Lattitude/Northing:
	Longitude/Easting:

Place Where Accident Occurred:

County ROCKLAND ☐ City ☐ Village ☒ Town of STONY POINT

Road on which accident occurred TOMKINS AVE (Route Number or Street Name)

at 1) intersecting street FARLEY DR (Route Number or Street Name)

or 2) ____ feet ____ miles ☐N ☐S ☐E ☐W of ____ (Milepost, Nearest intersecting Route Number or Street Name)

Accident Description/Officer's notes

DRIVER 1 STATES THAT HE STOPPED AT THE STOP SIGN ON WOOD AVE THEN PROCEEDED N/B ACROSS INTERSECTION TOWARD FARLEY DR WHEN HE WAS STRUCK BY VEHICLE 2. DRIVER 2 STATES THAT SHE STOPPED AT THE STOP SIGN ON TOMKINS AVE THEN PROCEEDED W/B ON TOMKINS AVE WHEN SHE COLLIDED WITH VEHICLE 1. NO INJURIES REPORTED.

USE COVER SHEET: N

ALL INVOLVED

	8	9	10	11	12	13	14	15	16	17 BY	TO 18	Names of all involved	Date of Death Only
A	1	1	4	1	29	M	–	–	–			HARLEY, JOSEPH P	
B	1	3	4	1	28	F	–	–	–			DIRKS, JESSICA D	
C	2	1	4	1	62	F	–	–	–			BROOKS, KATHLEEN A	
D													
E													
F													

Officer's Rank and Signature	Badge/ID No.	NCIC No.	Precinct/Post Troop/Zone	Station/Beat Sector	Reviewing Officer	Date/Time Reviewed
PO Keith Hansen	661	04354			BERTRAND, DOUGLAS G	7/24/2010 23:20

Print Name in Full: KEITH T HANSEN

Local Codes
PDAA-162-10-4442
MZ6091000011

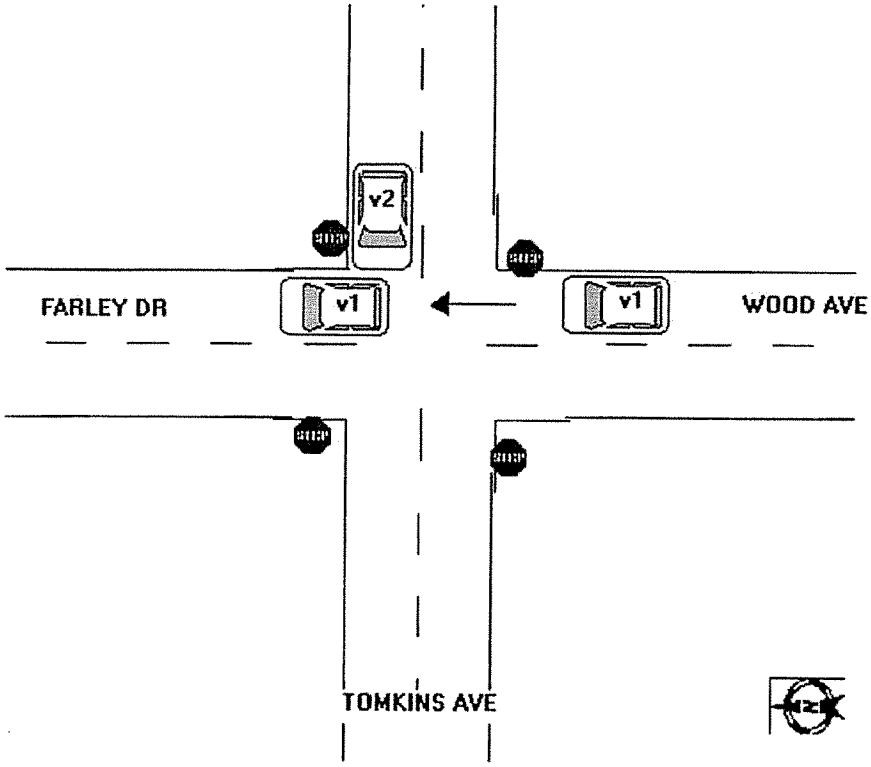
New York State Department of Motor Vehicles

POLICE ACCIDENT REPORT

MV-104A (3/04)

☐ AMENDED REPORT

Accident Date			Day of Week	Military Time	No. of Vehicles	No. Injured	No. Killed	Not Investigated at Scene ☐ / Accident Reconstructed ☐	Left Scene	Police Photos
Month	Day	Year								
7	24	2010	Saturday	19:30	2	0	0		☐	☐ Yes ☒ No



New York State Department of Motor Vehicles

POLICE ACCIDENT REPORT

MV-104A (3/04)

Local Codes
PDAA-015-11-0285
MZ6062000047

☐ AMENDED REPORT

Accident Date Month	Day	Year	Day of Week	Military Time	No. of Vehicles	No. Injured	No. Killed	Not Investigated at Scene ☐ / Accident Reconstructed ☐	Left Scene	Police Photos ☐ Yes ☒ No
1	17	2011	Monday	10:35	2	0	0		☐	

VEHICLE 1	VEHICLE 2 (☒ VEHICLE 2 ☐ BICYCLIST ☐ PEDESTRIAN ☐ OTHER PEDESTRIAN)
VEHICLE 1 - Driver License ID Number: 615885469	State of Lic.: NY
VEHICLE 2 - Driver License ID Number: 123483961	State of Lic.: NY
Driver Name - exactly as printed on license: NANDA, NITIN	Driver Name - exactly as printed on license: ROSE, ROBERT
Address (Include Number and Street): 16 JACKSON DR	Address (Include Number and Street): 136 RAILROAD AVE
Apt. No.	Apt. No.
City or Town: STONY POINT	City or Town: W HAVERSTRAW
State: NY	State: NY
Zip Code: 10980	Zip Code: 10993
Date of Birth: Month 3 Day 20 Year 1970	Date of Birth: Month 8 Day 13 Year 1942
Sex: M	Sex: M
Unlicensed: ☐	Unlicensed: ☐
No. of Occupants: 01	No. of Occupants: 01
Public Property Damaged: ☐	Public Property Damaged: ☐
Name - exactly as printed on registration: NANDA, NITIN	Name - exactly as printed on registration: ROSE, ROBERT
Sex: M	Sex: M
Date of Birth: Month 3 Day 20 Year 1970	Date of Birth: Month 8 Day 13 Year 1942
Address (Include Number and Street): 16 JACKSON DR	Address (Include Number and Street): 136 RAILROAD AVE
Apt. No.	Apt. No.
Haz. Mat. Code: –	Haz. Mat. Code: –
Released: ☐	Released: ☐
City or Town: STONY POINT	City or Town: WEST HAVERSTRA
State: NY	State: NY
Zip Code: 10980	Zip Code: 10993
Plate Number: DMJ3460	Plate Number: CPC3836
State of Reg.: NY	State of Reg.: NY
Vehicle Year & Make: 2006 HOND	Vehicle Year & Make: 2003 TOYT
Vehicle Type: 4DSD	Vehicle Type: PICK
Ins. Code: 639	Ins. Code: 182
Ticket/Arrest Number(s):	Ticket/Arrest Number(s):
Violation Section(s):	Violation Section(s):

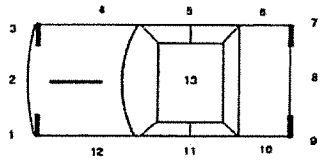
VEHICLE 1 — Check if involved vehicle is:
☐ more than 95 inches wide;
☐ more than 34 feet long;
☐ operated with an overweight permit;
☐ operated with an overdimension permit.

VEHICLE 1 DAMAGE CODES
Box 1 - Point of Impact: 6[1]
Box 2 - Most Damage: 6[2]
Enter up to three more damage codes: 3 4 5
Vehicle By: Towed: To:

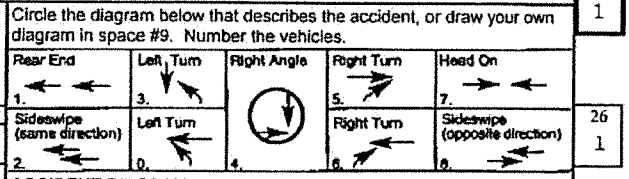
VEHICLE 2 — Check if involved vehicle is:
☐ more than 95 inches wide;
☐ more than 34 feet long;
☐ operated with an overweight permit;
☐ operated with an overdimension permit.

VEHICLE 2 DAMAGE CODES
Box 1 - Point of Impact: 3[1]
Box 2 - Most Damage: 3[2]
Enter up to three more damage codes: 3 4 5
Vehicle By: Towed: To:

VEHICLE DAMAGE CODING:
1-13 SEE DIAGRAM ON RIGHT.
14. UNDERCARRIAGE
15. TRAILER
16. OVERTURNED
17. DEMOLISHED
18. NO DAMAGE
19. OTHER



Circle the diagram below that describes the accident, or draw your own diagram in space #9. Number the vehicles.



ACCIDENT DIAGRAM

See the last page of the MV-104A for the accident diagram.

9.

Cost of repairs to any one vehicle will be more than $1000.
☒ Unknown/Unable to determine ☐ Yes ☐ No

Reference Marker

Coordinates (if available)
Lattitude/Northing:
Longitude/Easting:

Place Where Accident Occurred:
County ROCKLAND ☐ City ☐ Village ☒ Town of STONY POINT
Road on which accident occurred TOMKINS AV (Route Number or Street Name)
at 1) intersecting street FARLEY DR (Route Number or Street Name)
or 2) ____ feet ____ miles ☐N ☐S ☐E ☐W of ____ (Milepost, Nearest intersecting Route Number or Street Name)

Accident Description/Officer's notes
VEH#1 S/B FARLEY DR CROSSING OVER TOMKINS AV ONTO WOOD AV. VEH#2 E/B TOMKINS AV. AS VEH#1 PROCEEDED THROUGH INTERSECTION, VEH#2 ENTERED INTERSECTION, CAUSING COLLISION.

USE COVER SHEET
N

	8	9	10	11	12	13	14	15	16	17 BY	TO 18	Names of all Involved	Date of Death Only
A	1	1	4	1	40	M	–	–	–			NANDA, NITIN	
B	2	1	4	1	68	M	–	–	–			ROSE, ROBERT	
C													
D													
E													
F													

Officer's Rank and Signature	Badge/ID No.	NCIC No.	Precinct/Post Troop/Zone	Station/Beat Sector	Reviewing Officer	Date/Time Reviewed
P.O. Dennis M Tob	637	04354	A1	601	HYLAS, DANIEL J	1/20/2011 14:09
Print Name in Full: DENNIS M TOBIN						

New York State Department of Motor Vehicles

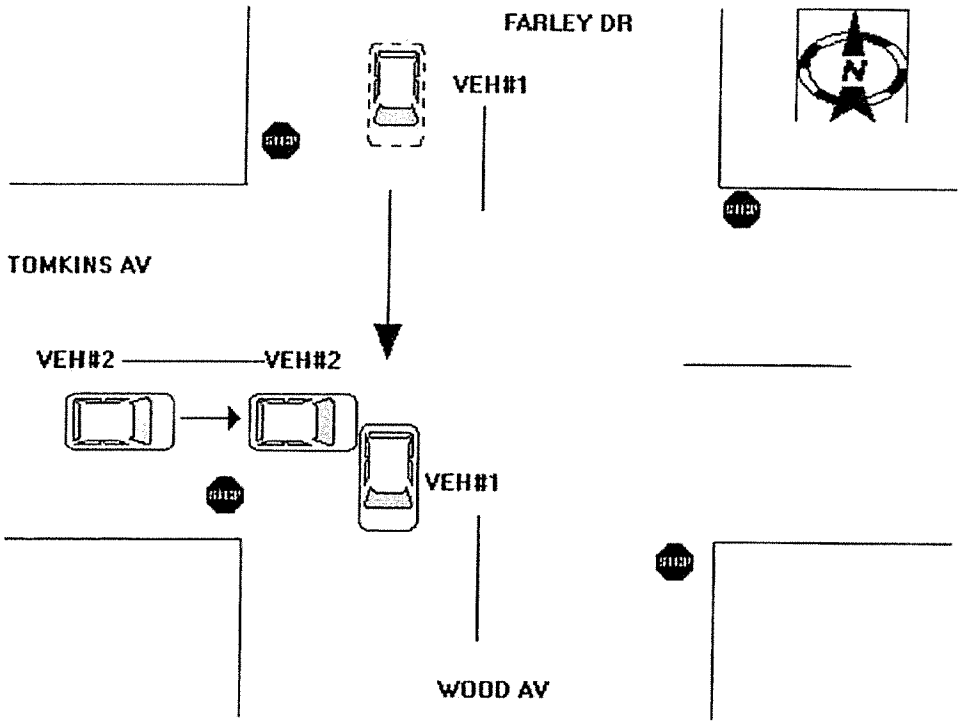
POLICE ACCIDENT REPORT

MV-104A (3/04)

Local Codes
PDAA-015-11-0285
MZ6062000047

☐ AMENDED REPORT

Accident Date			Day of Week	Military Time	No. of Vehicles	No. Injured	No. Killed	Not Investigated at Scene ☐ / Accident Reconstructed ☐	Left Scene	Police Photos
Month	Day	Year								
1	17	2011	Monday	10:35	2	0	0		☐	☐ Yes ☒ No



New York State Department of Motor Vehicles

POLICE ACCIDENT REPORT

MV-104A (3/04)

Local Codes: PDAA-190-11-5133 / MZ6091000052

☐ AMENDED REPORT

Accident Date Month	Day	Year	Day of Week	Military Time	No. of Vehicles	No. Injured	No. Killed	Not Investigated at Scene ☐ / Accident Reconstructed ☐	Left Scene	Police Photos
8	22	2011	Monday	23:30	2	0	0		☐	☐ Yes ☒ No

VEHICLE 1

VEHICLE 1 - Driver License ID Number: 612944776 — State of Lic: NY

Driver Name - exactly as printed on license: SCIARABBA, LINDSAY M

Address (Include Number and Street): 42 WOODLAKE DR — Apt No:

City or Town: THIELLS — State: NY — Zip Code: 10980

Date of Birth: Month 2, Day 10, Year 1992 — Sex: F — Unlicensed: ☐ — No. of Occupants: 01 — Public Property Damaged: ☐

Name - exactly as printed on registration: NIFOROS, THEODORE — Sex: — Date of Birth: Month 8, Day 15, Year 1941

Address (Include Number and Street): 32 DUNNIGAN DR — Apt. No: — Haz. Mat. Code: – — Released: ☐

City or Town: POMONA — State: NY — Zip Code: 10970

Plate Number: EWM2599 — State of Reg: NY — Vehicle Year & Make: 2010 TOYT — Vehicle Type: 4DSD — Ins. Code: 328

Ticket/Arrest Number(s):

Violation Section(s):

Check if involved vehicle is:
- ☐ more than 95 inches wide;
- ☐ more than 34 feet long;
- ☐ operated with an overweight permit;
- ☐ operated with an overdimension permit.

VEHICLE 1 DAMAGE CODES

Box 1 - Point of Impact: 7 (1) — Box 2 - Most Damage: 7 (2)

Enter up to three more damage codes: 6 (3), 8 (4), 5

Vehicle By: — Towed: To:

☒ VEHICLE 2 ☐ BICYCLIST ☐ PEDESTRIAN ☐ OTHER PEDESTRIAN

VEHICLE 2 - Driver License ID Number: — State of Lic:

Driver Name - exactly as printed on license: PARKED,

Address (Include Number and Street): — Apt No:

City or Town: — State: — Zip Code:

Date of Birth: Month, Day, Year — Sex: — Unlicensed: ☐ — No. of Occupants: 00 — Public Property Damaged: ☐

Name - exactly as printed on registration: THIESING, BRETT C — Sex: — Date of Birth: Month 12, Day 28, Year 1987

Address (Include Number and Street): 49 TOMKINS AVE — Apt. No: — Haz. Mat. Code: – — Released: ☐

City or Town: STONY POINT — State: NY — Zip Code: 10980

Plate Number: FLV5508 — State of Reg: NY — Vehicle Year & Make: 1995 ACUR — Vehicle Type: 2DSD — Ins. Code: 344

Ticket/Arrest Number(s):

Violation Section(s):

Check if involved vehicle is:
- ☐ more than 95 inches wide;
- ☐ more than 34 feet long;
- ☐ operated with an overweight permit;
- ☐ operated with an overdimension permit.

VEHICLE 2 DAMAGE CODES

Box 1 - Point of Impact: 6 (1) — Box 2 - Most Damage: 6 (2)

Enter up to three more damage codes: 5 (3), 4, 5

Vehicle By: — Towed: To:

Circle the diagram below that describes the accident, or draw your own diagram in space #9. Number the vehicles.

Rear End (1.) — Left Turn (3.) — Right Angle (4.) — Right Turn (5.) — Head On (7.)

Sideswipe (same direction) (2.) — Left Turn (0.) — Right Turn (6.) — Sideswipe (opposite direction) (8.)

ACCIDENT DIAGRAM

9

VEHICLE DAMAGE CODING:

1-13 SEE DIAGRAM ON RIGHT.

14. UNDERCARRIAGE
15. TRAILER
16. OVERTURNED
17. DEMOLISHED
18. NO DAMAGE
19. OTHER

Cost of repairs to any one vehicle will be more than $1000.
☒ Unknown/Unable to determine ☐ Yes ☐ No

Reference Marker

Coordinates (if available): Lattitude/Northing: — Longitude/Easting:

Place Where Accident Occurred:

County: ROCKLAND ☐ City ☐ Village ☒ Town of STONY POINT

Road on which accident occurred: TOMKINS AVE (Route Number or Street Name)

at 1) intersecting street: FARLEY DR (Route Number or Street Name)

or 2) ____ feet ____ miles ☐N ☐S ☐E ☐W of ____ (Milepost, Nearest intersecting Route Number or Street Name)

Accident Description/Officer's notes

DRIVER STATES THAT SHE WAS BACKING VEHICLE 1 OUT OF DRIVEWAY FOR #52 TOMKINS AVE WHEN SHE COLLIDED WITH PARKED AND UNOCCUPPIED VEHICLE 2 WHICH WAS PARKED IN DRIVEWAY OF #49 TOMKINS AVE. NO INJURIES REPORTED.

N

ALL INVOLVED

	8	9	10	11	12	13	14	15	16	17 BY	TO 18	Names of all involved	Date of Death Only
A	1	1	4	1	19	F	–	–	–			SCIARABBA, LINDSAY M	
B													
C													
D													
E													
F													

Officer's Rank and Signature	Badge/ID No.	NCIC No.	Precinct/Post Troop/Zone	Station/Beat Sector	Reviewing Officer	Date/Time Reviewed
PO Keith Hansen — Print Name in Full: KEITH T HANSEN	661	04354			BERTRAND, DOUGLAS G	8/23/2011 17:11

New York State Department of Motor Vehicles

POLICE ACCIDENT REPORT

MV-104A (3/04)

Local Codes: PDAA-284-11-7291 / MZ6091000065

☐ AMENDED REPORT

Accident Date Month	Day	Year	Day of Week	Military Time	No. of Vehicles	No. Injured	No. Killed	Not Investigated at Scene ☐ / Accident Reconstructed ☐	Left Scene ☐	Police Photos ☐ Yes ☒ No
11	22	2011	Tuesday	14:10	1	0	0			

VEHICLE 1

VEHICLE 1 - Driver License ID Number: 787053730 — State of Lic.: NY

Driver Name - exactly as printed on license: FARINA, FRANK A

Address (Include Number and Street): 24 FARLEY DR — Apt. No.:

City or Town: STONY POINT — State: NY — Zip Code: 10980

Date of Birth: Month 10 Day 23 Year 1975 — Sex: M — Unlicensed: ☐ — No. of Occupants: 01 — Public Property Damaged: ☐

Name - exactly as printed on registration: ELRAC, LLC, — Sex: C — Date of Birth: Month / Day / Year

Address (Include Number and Street): 124 ROUTE 9W — Apt. No.: — Haz. Mat. Code: – — Released: ☐

City or Town: HAVERSTRAW — State: NY — Zip Code: 10927

Plate Number: FCU3602 — State of Reg.: OH — Vehicle Year & Make: 2011 DODG — Vehicle Type: 4DSD — Ins. Code: 000

Ticket/Arrest Number(s):

Violation Section(s):

☐ VEHICLE ☐ BICYCLIST ☐ PEDESTRIAN ☐ OTHER PEDESTRIAN

VEHICLE 2 - Driver License ID Number — State of Lic.:

Driver Name - exactly as printed on license:

Address (Include Number and Street): — Apt. No.:

City or Town: — State: — Zip Code:

Date of Birth: Month / Day / Year — Sex: — Unlicensed: ☐ — No. of Occupants: — Public Property Damaged: ☐

Name - exactly as printed on registration: — Sex: — Date of Birth: Month / Day / Year

Address (Include Number and Street): — Apt. No.: — Haz. Mat. Code: — Released: ☐

City or Town: — State: — Zip Code:

Plate Number: — State of Reg.: — Vehicle Year & Make: — Vehicle Type: — Ins. Code:

Ticket/Arrest Number(s):

Violation Section(s):

VEHICLE 1 — Check if involved vehicle is:
- ☐ more than 95 inches wide;
- ☐ more than 34 feet long;
- ☐ operated with an overweight permit;
- ☐ operated with an overdimension permit.

VEHICLE 1 DAMAGE CODES

Box 1 - Point of Impact	2 (1)	2 (2)	
Box 2 - Most Damage			
Enter up to three more damage codes	5 (3)	(4)	(5)

Vehicle Towed By: D+K — To: TOMKINS AVE

VEHICLE 2 — Check if involved vehicle is:
- ☐ more than 95 inches wide;
- ☐ more than 34 feet long;
- ☐ operated with an overweight permit;
- ☐ operated with an overdimension permit.

VEHICLE 2 DAMAGE CODES

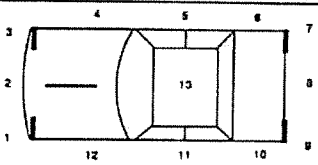
	(1)	(2)
(3)	(4)	(5)

Vehicle Towed By: — To:

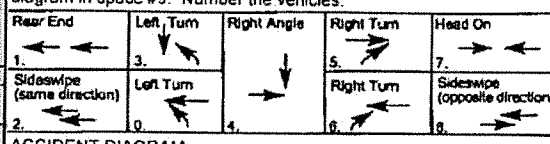
VEHICLE DAMAGE CODING:

1-13 SEE DIAGRAM ON RIGHT.

14. UNDERCARRIAGE
15. TRAILER
16. OVERTURNED
17. DEMOLISHED
18. NO DAMAGE
19. OTHER



Circle the diagram below that describes the accident, or draw your own diagram in space #9. Number the vehicles.



ACCIDENT DIAGRAM

See the last page of the MV-104A for the accident diagram.

9.

Cost of repairs to any one vehicle will be more than $1000.
☒ Unknown/Unable to determine ☐ Yes ☐ No

Reference Marker	Coordinates (if available)
	Lattitude/Northing:
	Longitude/Easting:

Place Where Accident Occurred:

County ROCKLAND ☐ City ☐ Village ☒ Town of STONY POINT

Road on which accident occurred TOMKINS AVE (Route Number or Street Name)

at 1) intersecting street DEPOT PL (Route Number or Street Name)

or 2) ____ feet ____ miles ☐N ☐S ☐E ☐W of ____ (Milepost, Nearest intersecting Route Number or Street Name)

Accident Description/Officer's notes

DRIVER STATES THAT WHILE TRAVELLING W/B ON TOMKINS AVE HE SWERVED RIGHT TO AVOID HITTING A DOG WHICH RAN IN FRONT OF HIS VEHICLE. THIS CAUSED THE VEHICLE TO LEAVE THE ROADWAY AND STRIKE THE MAILBOX FOR #5 TOMKINS AVE. PROPERTY OWNER NOTIFIED. D+K ON SCENE TO WINCH VEHICLE OFF OF MAILBOX. NO INJURY REPORTED. UNABLE TO ACERTAIN INSURANCE COMPANY FOR VEHICLE. PROPERTY DAMAGE BY VEHICLE #01 - MAILBOX, EDWARD MCELROY 5 TOMKINS AVE STONY POINT NY 10980

N

ALL INVOLVED

	8	9	10	11	12	13	14	15	16	17 BY	TO 18	Names of all involved	Date of Death Only
A	1	1	4	1	36	M	–	–	–			FARINA, FRANK A	
B													
C													
D													
E													
F													

Officer's Rank and Signature	Badge/ID No.	NCIC No.	Precinct/Post Troop/Zone	Station/Beat Sector	Reviewing Officer	Date/Time Reviewed
PO Keith Hansen	661	04354			HYLAS, DANIEL J	11/23/2011 07:02

Print Name in Full: KEITH T HANSEN

Local Codes
PDAA-284-11-7291
MZ6091000065

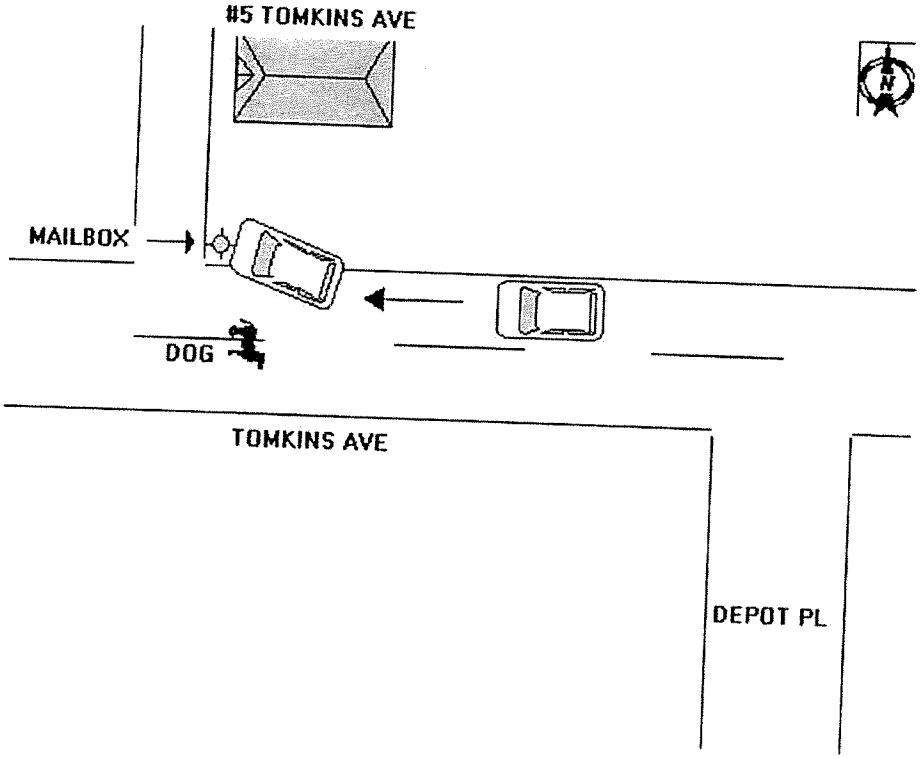
New York State Department of Motor Vehicles

POLICE ACCIDENT REPORT

MV-104A (3/04)

☐ AMENDED REPORT

Accident Date			Day of Week	Military Time	No. of Vehicles	No. Injured	No. Killed	Not Investigated at Scene ☐ / Accident Reconstructed ☐	Left Scene	Police Photos
Month	Day	Year								
11	22	2011	Tuesday	14:10	1	0	0		☐	☐ Yes ☒ No



Local Codes
PDAA-093-17-2
MZ61026VK23V

New York State Department of Motor Vehicles

POLICE ACCIDENT REPORT

MV-104A (6/04)

☐ AMENDED REPORT

19: 69

Accident Date Month	Day	Year	Day of Week	Military Time	No. of Vehicles	No. Injured	No. Killed	Not Investigated at Scene	Left Scene	Police Photos
4	20	2017	THURSDAY	13:57	1	0	0	☐ Accident Reconstructed ☐	☐	☐ Yes ☑ No

20: –

VEHICLE 1																	
1 –	VEHICLE 1- Driver License ID Number 31251530				State of Lic. IA												
	Driver Name - exactly as printed on license KELCHEN, KEVIN J																
	Address (Include Number and Street) 118 DOROTHY AVE																Apt. No.
3 1	City or Town WASHINGTON				State PA		Zip Code 15301										
	Date of Birth Month 8	Day 14	Year 1961	Sex M	Unlicensed ☐	No. of Occupants 01		Public Property Damaged ☐									
4 1	Name - exactly as printed on registration KELCHEN, KEVIN J				Sex M	Date of Birth Month 8	Day 14	Year 1961									
	Address (Include Number and Street) 118 DOROTHY AVE				Apt. No.	Haz. Mat. Code –		Released ☐									
5 1	City or Town WASHINGTON				State PA		Zip Code 15301										
	Plate Number 9129CO	State of Reg. IA	Vehicle Year & Make 2010 MONT		Vehicle Type UN/V		Ins. Code 733										
	Ticket/Arrest Number(s)																
6 1	Violation Section(s)																

VEHICLE 1 ☐ VEHICLE ☐ BICYCLIST ☐ PEDESTRIAN ☐ OTHER PEDESTRIAN

21: VEHICLE - Driver License ID Number / State of Lic.; Driver Name - exactly as printed on license

22: Address (Include Number and Street) / Apt. No.; City or Town / State / Zip Code

23: Date of Birth Month Day Year / Sex / Unlicensed / No. of Occupants / Public Property Damaged

24: Name - exactly as printed on registration / Sex / Date of Birth Month Day Year; Address (Include Number and Street) / Apt. No. / Haz. Mat. Code / Released; City or Town / State / Zip Code

25: Plate Number / State of Reg. / Vehicle Year & Make / Vehicle Type / Ins. Code; Ticket/Arrest Number(s); Violation Section(s)

1

7 2

VEHICLE 1

Check if involved vehicle is:
- ☐ more than 95 inches wide;
- ☐ more than 34 feet long;
- ☐ operated with an overweight permit;
- ☐ operated with an overdimension permit.

VEHICLE 1 DAMAGE CODES

	1	2
Box 1 - Point of Impact		
Box 2 - Most Damage	13	13
Enter up to three more damage codes	3: 13	4 / 5

Vehicle By:
Towed To:

VEHICLE

Check if involved vehicle is:
- ☐ more than 95 inches wide;
- ☐ more than 34 feet long;
- ☐ operated with an overweight permit;
- ☐ operated with an overdimension permit.

VEHICLE DAMAGE CODES

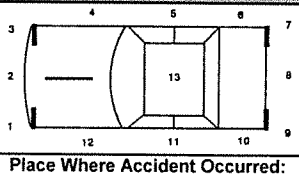
	1	2
Box 1 - Point of Impact		
Box 2 - Most Damage		
Enter up to three more damage codes	3	4 / 5

Vehicle By:
Towed To:

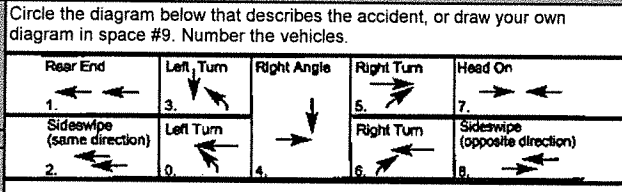
VEHICLE DAMAGE CODING:

1-13 SEE DIAGRAM ON RIGHT.

14. UNDERCARRIAGE
15. TRAILER
16. OVERTURNED
17. DEMOLISHED
18. NO DAMAGE
19. OTHER



Circle the diagram below that describes the accident, or draw your own diagram in space #9. Number the vehicles.



26

ACCIDENT DIAGRAM

See the last page of the MV-104A for the accident diagram.

9.

27: 1

Cost of repairs to any one vehicle will be more than $1000.
☑ Unknown/Unable to determine ☐ Yes ☐ No

28: 19

Reference Marker

Coordinates (if available)
Latitude/Northing
Longitude/Easting

Place Where Accident Occurred:
County ROCKLAND ☐ City ☐ Village ☑ Town of STONY POINT
Road on which accident occurred TOMKINS AVE (Route Number or Street Name)
at 1) intersecting street (Route Number or Street Name)
or 2) 10 feet miles ☐ N ☐ S ☑ E ☐ W of DEPOT PL (Milepost, Nearest intersecting Route Number or Street Name)

29: –

Accident Description/Officer's notes

IOWA REGISTRATION # 528202 WAS TOWING V1 AND STRUCK THE CSX BRIDGE TRESSEL DUE TO THE HEIGHT OF V1. OPERATOR DID NOT REALIZE V1 HEIGHT COMPARED TO THE BRIDGE. NO INJURIES REPORTED. V1 INSURANCE: NATIONWIDE INSURANCE POLICY # RVAA0020980539. PROPERTY DAMAGED BY VEHICLE #01- BRIDGE BEAM CSX , NY

30

USE COVER SHEET N

ALL INVOLVED

	8	9	10	11	12	13	14	15	16	17 BY	TO 18	Names of all involved	Date of Death Only
A	1	1	4	1	55	M	–	–	–			KELCHEN, KEVIN J	
B													
C													
D													
E													
F													

Officer's Rank and Signature	Badge/ID No.	NCIC No.	Precint/Post Troop/Zone	Station/Beat Sector	Reviewing Officer	Date/Time Reviewed
P.O. P. Michael Heath	668	04354			GARCIA, PEDRO	4/20/2017 15:40
Print Name in Full: MICHAEL R HEATH						

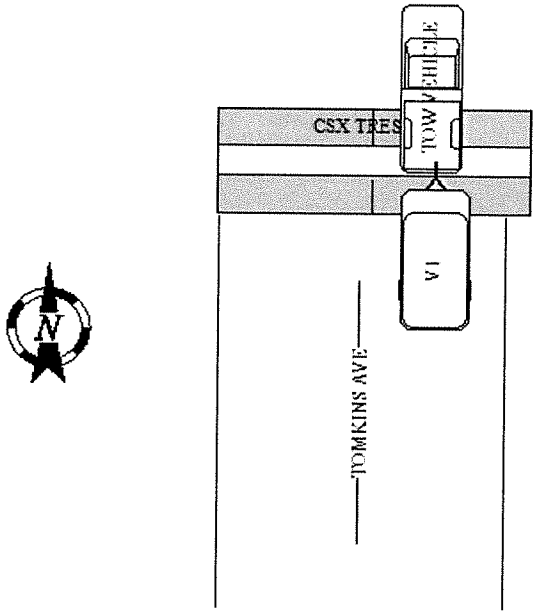
New York State Department of Motor Vehicles

POLICE ACCIDENT REPORT

MV-104A (6/04)

Local Codes	
PDAA-093-17-2	
MZ61026VK23V	☐ AMENDED REPORT

Accident Date Month	Day	Year	Day of Week	Military Time	No. of Vehicles	No. Injured	No. Killed	Not Investigated at Scene / Accident Reconstructed	Left Scene	Police Photos
4	20	2017	THURSDAY	13:57	1	0	0	☐ / ☐	☐	☐ Yes ☑ No



EAGLE BAY

APPENDIX L

CONCEPTUAL IMPROVEMENT PLAN

TOMKINS AVENUE

HUDSON DRIVE

TOMKINS AVENUE

BEACH ROAD

EDGE 50' RIGHT OF WAY

EXIST. SEWER MAIN

TO BE POSTED 200' IN ADVANCE OF STOP BAR

WIDEN TO PROVIDE ADDITIONAL PAVEMENT WIDTH

30'

20'

PAVED PARKING AREA

SMH T=15.3 Iin=13.13 Iout=12.83

SMH T=15.0

SMH T=14.96 Iin=8.31 Iin=1.11 Iout=0.71

SMH T=14.7

LP #321 NYT 1

LP 59782 4917. NYT 50

DB. YELLOW LINE

STOP

SIGN TABLE

SIGN #	MUTCD SIGN NO.	SIGN LEGEND	SIGN SIZE
1	R1-1	STOP	(30"x30")
2	W3-1		30"x30"

30 0 30

SCALE : 1" = 30'

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- Maryland: Columbia
- North Carolina: Charlotte, Raleigh
- Virginia: Reston, Norfolk
- New Mexico: Albuquerque
- Tennessee: Nashville
- Texas: Bryan

State of N.Y. Cert. of Authorization: 0008671/0008821

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811 PROTECT YOURSELF

ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE

Know what's below. Call before you dig.

FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

REV	DATE	DRAWN BY	DESCRIPTION

CONCEPTUAL DESIGN PLAN FOR

EAGLE BAY

TOMKINS AVENUE & BEACH ROAD & HUDSON DRIVE

TOWN OF STONY POINT
ROCKLAND COUNTY
NEW YORK

WESTCHESTER OFFICE
400 Columbus Avenue
Suite 180E
Valhalla, NY 10595

Phone: 914.347.7500
Fax: 914.347.7266

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	6/13/19	M.J.A.	P.J.G.

PROJECT NUMBER: 18005404A

DRAWING NAME: R-CNPT-STOP

SHEET TITLE: IMPROVEMENT CONCEPT PLAN

SHEET NUMBER: 1

2018\18005404A\Transportation\Concepts\R-CNPT-STOP.dwg\Traffic Signal Concept By: MAMENDOLA

Appendix N.I: Estimated Traffic Volumes for Development Alternatives

TABLE ALT 1 - REDUCED ALTERNATE

HOURLY TRIP GENERATION RATES & ANTICIPATED SITE GENERATED TRAFFIC VOLUMES

EAGLE BAY	ENTRY		EXIT		TOTAL	
	HTGR*	VOLUME	HTGR*	VOLUME	HTGR*	VOLUME
RESIDENTIAL (1) **(200 UNITS)**						
WEEKDAY PEAK AM HOUR	0.09	18	0.27	54	0.36	72
WEEKDAY PEAK PM HOUR	0.27	54	0.17	34	0.44	88
SUMMER FRIDAY PEAK PM HOUR	0.27	54	0.17	34	0.44	88
SUMMER SATURDAY PEAK HOUR	0.22	44	0.22	44	0.44	88
RETAIL (2) **(3,200 s.f.)**						
WEEKDAY PEAK AM HOUR	1.62	5	1.38	5	3.00	10
WEEKDAY PEAK PM HOUR	2.11	6	2.11	7	4.22	13
SUMMER FRIDAY PEAK PM HOUR	2.11	6	2.11	7	4.22	13
SUMMER SATURDAY PEAK HOUR	2.34	7	2.16	7	4.50	14
OFFICE (3) **(4,800 s.f.)**						
WEEKDAY PEAK AM HOUR	1.00	5	0.16	1	1.16	6
WEEKDAY PEAK PM HOUR	0.18	1	0.97	5	1.15	6
SUMMER FRIDAY PEAK PM HOUR	0.18	1	0.97	5	1.15	6
SUMMER SATURDAY PEAK HOUR	0.29	2	0.24	1	0.53	3
RESTAURANT (4) **(2,000 s.f.)**						
WEEKDAY PEAK AM HOUR	5.47	11	4.47	9	9.94	20
WEEKDAY PEAK PM HOUR	6.06	12	3.71	8	9.77	20
SUMMER FRIDAY PEAK PM HOUR	6.06	12	3.71	8	9.77	20
SUMMER SATURDAY PEAK HOUR	5.71	11	5.48	11	11.19	22
PUBLIC ACCESS AREA (5) (8) **(1.4 ACRES)**						
WEEKDAY PEAK AM HOUR	6.43	9	4.29	6	10.72	15
WEEKDAY PEAK PM HOUR	4.29	6	6.43	9	10.72	15
SUMMER FRIDAY PEAK PM HOUR	4.29	6	6.43	9	10.72	15
SUMMER SATURDAY PEAK HOUR	10.71	15	8.75	12	19.46	27
MARINA (6) (7) (8) **(100 SLIPS)**						
WEEKDAY PEAK AM HOUR	0.08	8	0.04	4	0.12	12
WEEKDAY PEAK PM HOUR	0.10	10	0.10	10	0.20	20
SUMMER FRIDAY PEAK PM HOUR	0.10	10	0.10	10	0.20	20
SUMMER SATURDAY PEAK HOUR	0.10	10	0.12	12	0.22	22
TOTAL TRIPS (9)						
WEEKDAY PEAK AM HOUR	**------**	**56**	**------**	**79**	**------**	**135**
WEEKDAY PEAK PM HOUR	**------**	**89**	**------**	**73**	**------**	**162**
SUMMER FRIDAY PEAK PM HOUR	**------**	**89**	**------**	**73**	**------**	**162**
SUMMER SATURDAY PEAK HOUR	**------**	**89**	**------**	**87**	**------**	**176**

THE HOURLY TRIP GENERATION RATES (HTGR) ARE BASED ON DATA PUBLISHED BY THE INSTITUTE OF TRANSPORTATION ENGINEERS (ITE) - TRIP GENERATION HANDBOOK - 10TH EDITION

(1) ITE LAND USE 221 - MID-RISE APARTMENTS

(2) ITE LAND USE 820 - SHOPPING CENTER

(3) ITE LAND USE 710 - GENERAL OFFICE

(4) ITE LAND USE 932 - HIGH-TURNOVER SIT-DOWN RESTAURANT

(5) ITE LAND USE 411 - PUBLIC PARK

(6) ITE LAND USE 420 - MARINA

(7) ASSUMES PEAK MARINA TRIP GENERATION

(8) AS NOTED IN THE TRAFFIC IMPACT STUDY, THE EXISTING TRAFFIC TO/FROM THE SITE ASSOCIATED WITH THE EXISTING USES WERE LEFT IN THE FUTURE TRAFFIC CONDITIONS TO CONSERVATIVELY ACCOUNT FOR THE USE OF THE PUBLIC ACCESS AREA AND BOAT SLIPS.

(9) IT SHOULD BE NOTED NO REDUCTION IN TRIP GENERATION (CREDIT) FOR THE LIKELY "INTERPLAY" BETWEEN THE ABOVE USES WAS TAKEN

TABLE ALT 2 - FULL BUILD OUT ALTERNATE

HOURLY TRIP GENERATION RATES & ANTICIPATED SITE GENERATED TRAFFIC VOLUMES

EAGLE BAY	ENTRY		EXIT		TOTAL	
	HTGR*	VOLUME	HTGR*	VOLUME	HTGR*	VOLUME
RESIDENTIAL (1) **(290 UNITS)**						
WEEKDAY PEAK AM HOUR	0.09	26	0.27	78	0.36	104
WEEKDAY PEAK PM HOUR	0.27	78	0.17	49	0.44	127
SUMMER FRIDAY PEAK PM HOUR	0.27	78	0.17	49	0.44	127
SUMMER SATURDAY PEAK HOUR	0.22	64	0.22	64	0.44	128
RESTAURANT (2) **(16,000 s.f.)**						
WEEKDAY PEAK AM HOUR	5.47	88	4.47	72	9.94	160
WEEKDAY PEAK PM HOUR	6.06	97	3.71	59	9.77	156
SUMMER FRIDAY PEAK PM HOUR	6.06	97	3.71	59	9.77	156
SUMMER SATURDAY PEAK HOUR	5.71	91	5.48	88	11.19	179
PUBLIC ACCESS AREA (3) (6) **(1.7 ACRES)**						
WEEKDAY PEAK AM HOUR	6.43	11	4.29	7	10.72	18
WEEKDAY PEAK PM HOUR	4.29	7	6.43	11	10.72	18
SUMMER FRIDAY PEAK PM HOUR	4.29	7	6.43	11	10.72	18
SUMMER SATURDAY PEAK HOUR	10.71	18	8.75	15	19.46	33
MARINA (4) (5) (6) **(100 SLIPS)**						
WEEKDAY PEAK AM HOUR	0.08	8	0.04	4	0.12	12
WEEKDAY PEAK PM HOUR	0.10	10	0.10	10	0.20	20
SUMMER FRIDAY PEAK PM HOUR	0.10	10	0.10	10	0.20	20
SUMMER SATURDAY PEAK HOUR	0.10	10	0.12	12	0.22	22
TOTAL TRIPS (7)						
WEEKDAY PEAK AM HOUR	**------**	**133**	**------**	**161**	**------**	**294**
WEEKDAY PEAK PM HOUR	**------**	**192**	**------**	**129**	**------**	**321**
SUMMER FRIDAY PEAK PM HOUR	**------**	**192**	**------**	**129**	**------**	**321**
SUMMER SATURDAY PEAK HOUR	**------**	**183**	**------**	**179**	**------**	**362**

THE HOURLY TRIP GENERATION RATES (HTGR) ARE BASED ON DATA PUBLISHED BY THE INSTITUTE OF TRANSPORTATION ENGINEERS (ITE) - TRIP GENERATION HANDBOOK - 10TH EDITION

(1) ITE LAND USE 221 - MID-RISE APARTMENTS

(2) ITE LAND USE 932 - HIGH-TURNOVER SIT-DOWN RESTAURANT

(3) ITE LAND USE 411 - PUBLIC PARK

(4) ITE LAND USE 420 - MARINA

(5) ASSUMES PEAK MARINA TRIP GENERATION

(6) AS NOTED IN THE TRAFFIC IMPACT STUDY, THE EXISTING TRAFFIC TO/FROM THE SITE ASSOCIATED WITH THE EXISTING USES WERE LEFT IN THE FUTURE TRAFFIC CONDITIONS TO CONSERVATIVELY ACCOUNT FOR THE USE OF THE PUBLIC ACCESS AREA AND BOAT SLIPS.

(7) IT SHOULD BE NOTED NO REDUCTION IN TRIP GENERATION (CREDIT) FOR THE LIKELY "INTERPLAY" BETWEEN THE ABOVE USES WAS TAKEN

Appendix O: Community Services Correspondences

Appendix O.I: Stony Point Police Department

BRIAN J. MOORE
CHIEF OF POLICE

POLICE DEPARTMENT
TOWN OF STONY POINT

79 ROUTE 210
STONY POINT, NEW YORK 10980

TEL: (845) 786-2422
FAX: (845) 786-3120

STONY POINT - GRASSY POINT - TOMKINS COVE - JONES POINT
www.stonypointpd.org

02/04/2019

Mr. Malcolm M. Simpson
Planning Analyst
Atzl, Nasher, & Zigler P.C.
234 North Main Street
New City, NY 10956
(845) 634-4694

Dear Mr. Simpson,

I am replying to your letter dated 01/17/2019 regarding your work on the DEIS for the proposed "Eagle Bay/ The Breakers" project on Hudson Drive in Stony Point NY. You have requested my input from and emergency services perspective on the proposed mixed use (residential, commercial & marina) project and its impact on the area and our ability to deliver the necessary services to those residents and visitors.

I believe a meeting with all emergency services is warranted to advise us of the proposed remedies to specific issues already noted about this site and formerly proposed projects, in order for me and others to specifically comment on whether your proposed solutions address the public safety needs and concerns of the emergency service community.

Generally the concerns were that of access to the proposed site via egress and ingress routes that did not address emergency vehicles access, known flooding conditions, railway bridges with height restrictions etc. As far as law enforcement needs, I believe the proposed project of 264 multifamily units, proposed retail space in addition to a working marina would require at least one additional police officer and police vehicle to handle the increased population and the increased calls for service, that would be generated by such a project. Our current staffing is 25 full time officers and 5 part time officers, who handle approximately 10,000 calls for service per year.

I remain extremely concerned about the ability of emergency services to quickly and safely evacuate this area in a natural or manmade disaster (floods, storms, train derailment, fire, etc). Again I request a meeting of all emergency services, town officials and your staff for you to address your proposed solutions to the known site and surrounding area problems.

Best Regards,

Brian J. Moore

Chief of Police

BRIAN J. MOORE
CHIEF OF POLICE

POLICE DEPARTMENT
TOWN OF STONY POINT

79 ROUTE 210
STONY POINT, NEW YORK 10980

TEL: (845) 786-2422
FAX: (845) 786-3120

STONY POINT - GRASSY POINT - TOMKINS COVE - JONES POINT
www.stonypointpd.org

June 14, 2016

Ms. Donna Holmqvist
Director of Planning Services
Atzl, Nash & Zigler P.C.
234 North Main Street
New City, New York 10956

Dear Ms. Holmqvist,

I received your letter dated 6/2/16 requesting my agencies input on "The Breakers" waterfront development project in Stony Point. From a public safety standpoint, I offer the following points for considerations.

Emergency access and evacuation routes: Currently Hudson Drive offers only one way in and out and is a private road. This road would have to be wider and built to public highway specifications. Additionally the intersection of Hudson Drive to Tomkins Ave and Beach Road would have to be realigned for better sight lines and proper traffic control devices would have to be installed. Next you would have to provide a secondary point of ingress and egress for an evacuation route or emergency access point. I know the path/road under the railroad bridge at Hunter Place has been spoken of in the past. This currently has height restrictions that would pose a problem for fire and other large emergency apparatus. The same holds true for the Tomkins Avenue railroad underpass. These both would have to be addressed. The next issue we have in that area is the flooding of Beach Road and its use for regular traffic and as an emergency access or evacuation point. I believe some type of flood mitigation should be addressed as well as widening the road to better accommodate the additional volume of traffic coming from "The Breakers". If Beach Road floods, then large emergency apparatus will be unable to access Hudson Drive because of the current railroad underpass limitations previously discussed.

Site/Building access: Our concern is that there is 24/7 access to all buildings, lobbies and the property for public safety purposes. We need to determine whether there will be on site property management or security capable of giving access to residential units in times of medical emergencies and etc. If not we will need key code(s), fobs etc to provide 24/7 service.

Manpower: The proposed addition of 206 multifamily dwellings, commercial use space, a 250 slip marina and other outdoor public space amenities will absolutely require additional services from the Police, Fire and EMS services. We can expect to see a rise in calls for service in areas such as alarms, medical calls, auto accidents, larcenies, elevator rescues, and other general services. In times of more extreme emergencies such as floods, weather related events, a fire or natural gas incident, or a train derailment, these multifamily units with a marina and commercial space will require additional manpower to safely evacuate residents, patrons and visitors. I believe one to two officers should be added to the police department to handle the additional calls for service on a 24/7/365 day basis.

I have addressed the issues from the police department's perspective, while touching briefly on Fire and EMS services. I believe these other emergency service departments should be consulted directly, for their input on how this project would affect them and their ability to respond to emergencies at "The Breakers". If you have any further questions please feel free to contact me at 845-786-2422.

Sincerely,

Brian J. Moore

Brian J. Moore
Chief of Police

Appendix O.II: North Rockland School District

NORTH ROCKLAND CENTRAL SCHOOL DISTRICT
Administrative Office Building
65 CHAPEL STREET, GARNERVILLE, NEW YORK 10923 (845)942-3002

Ileana Eckert
Superintendent of Schools

January 3, 2018

Ms. Donna Holmqvist
Director of Planning Services
Atzl, Nasher & Zigler, P.C.
234 North Main Street
New City, NY 10956

Dear Ms. Holmqvist:

As per your request, this is an update of our July 22, 2016 letter.

The District's input as to your proposed new waterfront project "The Breakers" is as follows:

As the district must stay within the New York State Cap formula which directly controls our budget, we are in a position that if new students come in at certain levels and costs go up, the district will have to cut other areas. This year the New York State Cap Calculation was $1,764,538. This means that our tax levy for the 2017-2018 year is $1,764,538 more than our 2016-2017 school year. Also, new construction tax revenue does not include increasing the Tax Levy the district gets from its residents. New construction does help the local town's residents where the new construction will lower the tax rate for those people paying taxes. So as it is nice that new construction can help the overall resident tax rate/bill it currently puts our school district in a situation where additional cuts to staff and programs are imminent due to the New York State Tax Cap.

Below is the updated budget and student enrollment information from our 2016-2017 school year.

2016-2017 North Rockland School District information:

1. Public school enrollment = 7824 students in 8 schools
2. Special Ed, Private and Parochial residence = 180
3. Total Enrollment = 8004
4. Total School Budget = $213,313,835.
5. Total School Education Budget = $109,595,874
   Cost per pupil = $27,264
   Cost per pupil Education Budget = $13,692
6. 2016 – 2017 Tax Levy = ($74,971) (negative)
7. 2017-2018 Tax Levy = $141,361,457 (District levy up by $1,764,538)

Projected school enrollment for this development can be any of our three K-3 buildings, Stony Point Elementary School, Thiells Elementary School or West Haverstraw Elementary School. Our 4-6 buildings are Farley, Haverstraw or Willow Grove. Our middle school is Fieldstone Middle School and our high school is North Rockland High School. Three years ago our district went through a transformation, thus going from 10 schools to 8 schools. By doing this our current enrollment in all school buildings are high and close to maximum. Because of this school boundary lines could change annually to level off individual school enrollments.

Lastly, Mr. Michael Senno, our Business Official is willing to meet and go over any budget or enrollment numbers with you at your convenience. His phone number is (845) 942-3006.

Sincerely,

Ileana Eckert

Ileana Eckert
Superintendent

Appendix O.III: SUEZ Willingness to Serve

Frank McGlynn
Manager, New Business

Suez Water New York
360 West Nyack Road
West Nyack, NY 10994
TEL 845-620-6215
FAX 845-620-3347

1407

October 31, 2017

Ryan Nasher, P.E.
Atzl, Nasher & Zigler P.C.
234 North Main Street
New City, New York 10956

Re: Eagle Bay
Hudson Drive 1,150 feet North of Tompkins Avenue
Stony Point, NY

Dear Mr. Nasher;

This is to advise you that water service can currently be made available to the proposed mixed use development known as Eagle Bay, located on Hudson Drive, 1150 feet north of Tomkins Avenue in the Town of Stony Point, NY, using a projected average day demand of 78,000 gpd, a max day demand of 140,400 gpd, and fire flow 2,000 gpm. In order to provide service to this development, improvements to the water system will be required including:

Upsizing at least 2400 linear feet of existing 6 inch main leading to the site with 8 inch main.

This willingness to serve is subject to the following conditions:

1) Prior to the installation of any services or the extension of any mains, hydraulic data pertinent to the project must be provided to us, for our Engineering Department review and approval.
2) If, as a result of such review, it is decided that any extension of mains or pipes or modification of other facilities is required in order to meet the hydraulic needs of the project, those mains or facilities will be installed or extended by you in accordance with the terms and conditions of this Company's standard agreements for extensions.
3) Service will be provided in accordance with the terms and conditions set forth in the Company's filed Tariff, as amended or modified from time to time.
4) Water mains shall be laid in accordance with the Recommended Standards for Water Works (a.k.a. Ten State Standards).

This willingness to serve letter is contingent upon United Water New York Inc. having County, State and Federal regulatory authorization to provide the requested water service and is valid for nine (9) months from the date of issuance. If the main

installation/extension or service installation is not completed and approved by the Rockland County Department of Health within nine (9) months from the date this letter is issued, this willingness to serve letter will expire, and it will be necessary for you to request a new willingness to serve letter.

Please contact me at 845-620-6215 if you need additional information.

Very truly yours,

Frank McGlynn

cc: Ebi Elaahi, Ph.D., P.E. Department of Health

Appendix O.IV: Rockland County Sewer District #1 memo

ATZL, NASHER & ZIGLER P.C.

ENGINEERS-SURVEYORS-PLANNERS

234 North Main Street, New City, NY 10956

Tel: (845) 634-4694 Fax: (845) 634-5543

Eagle Bay Sewer Flow Estimates and Calculations

The Proposed Action, Eagle Bay, would create four multifamily residential buildings, a resident's pool and pool house, and a mixed-use commercial building including a restaurant, offices, and retail space. The various proposed uses and their estimated sewer calculations are provided below.

Residential Total

264 Units (46 1BR, 210 2BR, 8 3BR)

490 Bedrooms x 110 gal./day = **53,900 gal./day**

Residential Building 1

52 Units (10 1BR, 40 2BR, 2 3BR)

96 BR x 110 gal./day = **10,560 gal./day**

Residential Building 2

68 Units (10 1BR, 56 2BR, 2 3BR)

128 BR x 110 gal./day = **14,080 gal./day**

Residential Building 3

76 Units (16 1BR, 58 2BR, 2 3BR)

138 BR x 110 gal./day = **15,180 gal./day**

Residential Building 4

68 Units (10 1BR, 56 2BR, 2 3BR)

128 BR x 110 gal./day = **14,080 gal./day**

Restaurant (Commercial)

100 seats x 35 gal./day = **3,500 gal./day**

Office (Commercial)

5,100 sq. x 0.1 gal./day = **510 gal./day**

Retail (Commercial)

3,200 sq. x 0.1 gal./day = **320 gal./day**

Pool

100 swimmers x 10 gal./day = **1,000 gal./day**

Boat Slips

100 slips x 10 gal./day = **1,000 gal./day**

Total= 60, 230 gal./day

The existing sewer system this outflow would feed into comes into the Project Site from the Hunter Place Underpass with Sewer Manhole number (SMH#) 36 in zone 8. This line then runs south along Hudson Drive and then Beach Road before reaching the Beach Road Pump Station. These sewer manholes are detailed below. The information is sourced to the Town of Stony Point Inflow and Infiltration Management Program 2018 Evaluation/Progress Report and is taken from, the Manhole Database (Appendix B), and the CCTV Inspection Database (Appendix C).

Manhole Database – Appendix B

SMH#	Zone	MOD	Location	Depth	Pipe Size	Pipe Type	INV In	INV In	INV Out
36	8		Rail Easement-Hunter/Hudson	10'10"	10	ACP	10'10"		10'7"
37	8		Rail Easement-Hunter/Hudson	12'8"	10	ACP	12'4"		12'8"
38	8		Rail Easement-Hunter/Hudson	13'10"	10	ACP	13'10"		13'6"
39	8	A	Hudson Dr.	15'7"	10	ACP	15'6"		15'7"
39	8		Hudson Dr.	13'6"	10	ACP	13'4"		13'6"
40	8		Beach Road at Hudson Dr.	8'	8	ACP	7'9"		8'
41	8		Beach Road at Hudson Dr.	16'2"	24		16'		16'2"
42	8		Beach Road	16'	24		15'10"		16'
43	8		Beach Road	7'11"	24	ACP	7'9"		7'11"
142	8		Beach Road	6'6"	24		6'2"		6'6"
143	8		Beach Road	6'6"	24		6'2"		6'6"
144	8		Beach Road	6'6"	24		6'3"		6'6"
145	8		Beach Road	9'5"	24	ACP	9'5"		8'11"
146	8		Beach Road	7'10"	24		7'8"		7'10"
147	8		Beach Road	10'	24	ACP	9'8"		10'
148	8		Beach Road	9'9"	24	ACP	9'4"		9'9"
149	8		Beach Road	13'2"	24	ACP	13'		13'2"
150	8		Beach Road	15'5"	24	ACP	14'9"	14'8"	15'5"

CCTV Inspection Database – Appendix C

SMH#	Zone	MOD	Location	Pipe Type	Pipe Size	Condition
36	8		Rail Easement-Hunter/Hudson	ACP	12	Good
37	8		Rail Easement-Hunter/Hudson	ACP	12	
38	8		Rail Easement-Hunter/Hudson	ACP	12	Good

39	8	A	Hudson Dr.	ACP	12	Good
39	8		Hudson Dr.	ACP	12	Good
40	8		Beach Road at Hudson Dr.	ACP	12	Good
41	8		Beach Road at Hudson Dr.	ACP	18	Bypass required for inspection
42	8		Beach Road	ACP	18	Bypass required for inspection
43	8		Beach Road	ACP	18	Bypass required for inspection
142	8		Beach Road		15	Bypass required for inspection
143	8		Beach Road		15	Bypass required for inspection
144	8		Beach Road		15	Bypass required for inspection
145	8		Beach Road		15	Bypass required for inspection
146	8		Beach Road		15	Bypass required for inspection
147	8		Beach Road		15	Bypass required for inspection
148	8		Beach Road		15	Bypass required for inspection
149	8		Beach Road		15	Bypass required for inspection
150	8		Beach Road		15	Bypass required for inspection

On July 25th, 2019, David Zigler and Malcolm Simpson of Atzl Nasher and Zigler P.C. met with representatives of the Town of Stony Point (Karl Javenes, Mike Puccio, Jim Farr, John O'Rourke) regarding sewer flows, sewer fees, and existing issues with the sewer system that need to be addressed before additions can be made to the system. These issues were illustrated by Roy Rysinger in an email shortly before the meeting and have been included below.

> **Pumps:** As has been noted previously, the pumps, controls, and related piping needs to be replaced. Adding additional flow simply strengthens the reason for the need of full replacement. Currently, this item is under the scope of the GOSR project. We have no relevant update or timetable for completion at this time.
>
> **Generator:** The generator is the original and is undersized; it serves only to run two (2) pumps during utility loss. There are various electrical issues that also need to be addressed. The facility requires a new generator based off the proposed pumps above.
>
> **Rag Removal:** Beach Road receives the majority of the flow to the WWTP. As such, all of the inorganic material also collects at the PS. There are currently four (4) manual bar screens which are highly inefficient. There are often overflows in the wet well and backups in the system due to excessive rag accumulation. The Town should consider installing an automatic rag removal system.
>
> **I&I:** Despite 60,230 gallons being a nominal flow with respect to plant design, please note that that number is within the range of flow that is bypassed to Haverstraw during rain events. If the collection system did not bypass; the Town would see overflows at Beach Road and the collection system.
>
> **Wet Well Size and Force-Main:** Defer to engineer.

**Some of these improvements are already underway and their status is being verified*

The meeting addressed the topics of the Haverstraw-Stony Point Sewer Agreement and the necessity of flow monitoring along Beach Road.

The Intermunicipal Agreement for Waste Water Treatment services between the Town of Stony Point and the Joint Regional Sewerage Board (JRSB) of the Town of Haverstraw and Incorporated Village of West Haverstraw in Rockland County, New York, was an initial subject of discussion. The connection fee to be paid to the JRSB is $3,500 per unit to be paid prior to the issue of a Certificate of Occupancy. The percentage distribution of sewer connection fees shifts from solely benefitting the JRSB to being distributed between the JRSB and the Town of Stony Point on April 1, 2020.

- Prior to April 1, 2020, the JRSB will be the recipient of 100% of the connection fee.
- Beginning on April 1, 2020, the Town of Stony Point will begin receiving 25% of the connection fee with the remainder going to the JRSB.
- On April 1, 2021, the Town of Stony Point will begin receiving 50% with the remainder going to the JRSB.
- On April 1, 2022, Stony Point will begin receiving 75% of the connection fee with the remainder going to the JRSB and this distribution remaining until the agreement is finally terminated on July 5, 2025.

Preliminary estimates put the opening of building one between the second and third quarter of 2020. With 52 units in building one, and a connection fee of $3,500 per unit, the building would incur a sewer connection fee of $182,000. With 75% of this ($136,500) going to the JRSB and 25% ($45,500) going to the Town of Stony Point.

Issues of water intrusion along Beach Road were raised as a significant portion of the Town's sewer lines flow through this route on their way to the treatment plant. Issues of operation capacity and the status of intrusion factors on this capacity were raised and a consensus was reached to pursue flow monitoring investigation of these sewer routes to illuminate the extent of intrusion and current capacity. The status of current and planned improvements to the wastewater treatment plant and surrounding system, particularly Beach Road, are still being investigated and these findings will further illuminate this process.

Appendix O.V: Information received from the Stony Point Tax Assessor's Office

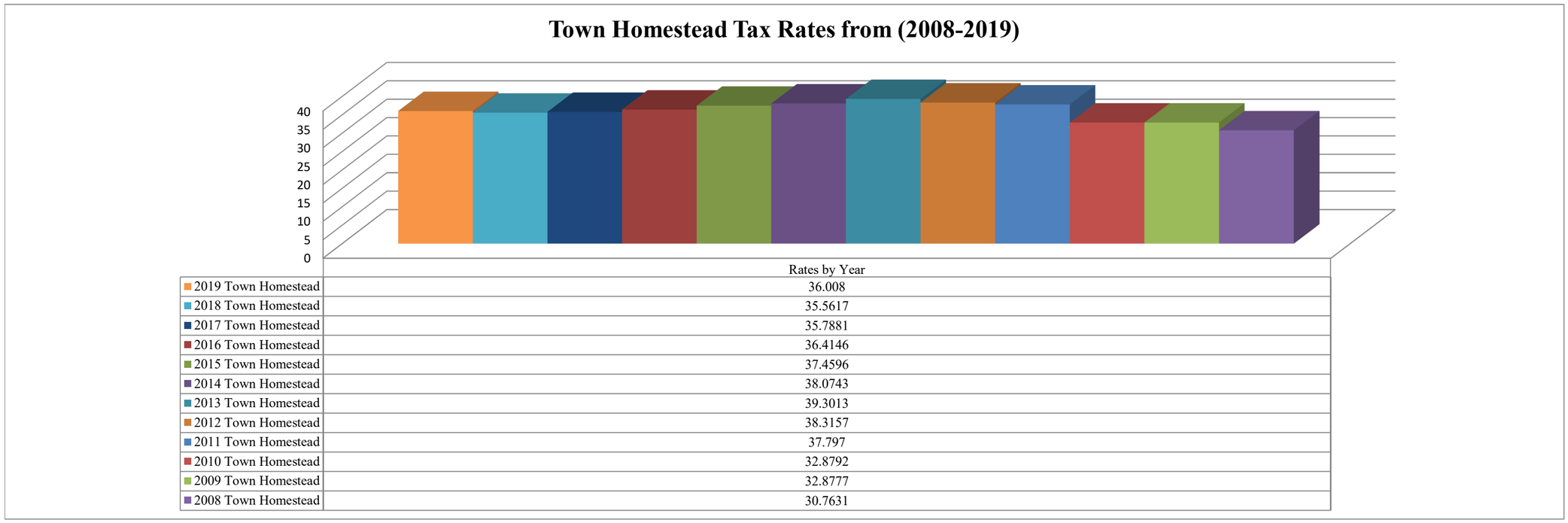
Master Tax Rate List

January 2017 Town Tax Rates	Rate
2017 Town Homestead	35.7881
2017 Town Non-Homestead	85.3398
2017 County	20.67991
January 2016 Town Tax Rates	**Rate**
2016 Town Homestead	36.4146
2016 Town Non-Homestead	86.9182
2016 County	8.98883
September 2016 School Tax Rates	**Rate**
2016 School Homestead	198.3326
2016 School Non-Homestead	269.8961
January 2015 Town Tax Rates	**Rate**
2015 Town Homestead	37.4596
2015 Town Non-Homestead	81.107
2015 County	7.2006
September 2015 School Tax Rates	**Rate**
2015 School Homestead	199.2605
2015 School Non-Homestead	270.9644
January 2014 Town Tax Rates	**Rate**
2014 Town Homestead	38.0743
2014 Town Non-Homestead	75.9651
2014 County	18.98627
September 2014 School Tax Rates	**Rate**
2014 School Homestead	199.2483
2014 School Non-Homestead	270.7255
January 2013 Town Tax Rates	**Rate**
2013 Town Homestead	39.3013
2013 Town Non-Homestead	73.2528
2013 County	18.43605
September 2013 School Tax Rates	**Rate**
2013 School Homestead	188.3107
2013 School Non-Homestead	257.0524
January 2012 Town Tax Rates	**Rate**
2012 Town Homestead	38.3157
2012 Town Non-Homestead	67.4516
2012 County	15.28641
September 2012 School Tax Rates	**Rate**
2012 School Homestead	186.8751
2012 School Non-Homestead	254.4161
January 2011 Town Tax Rates	**Rate**
2011 Town Homestead	37.797
2011 Town Non-Homestead	63.2356
2011 County	12.3397
September 2011 School Tax Rates	**Rate**

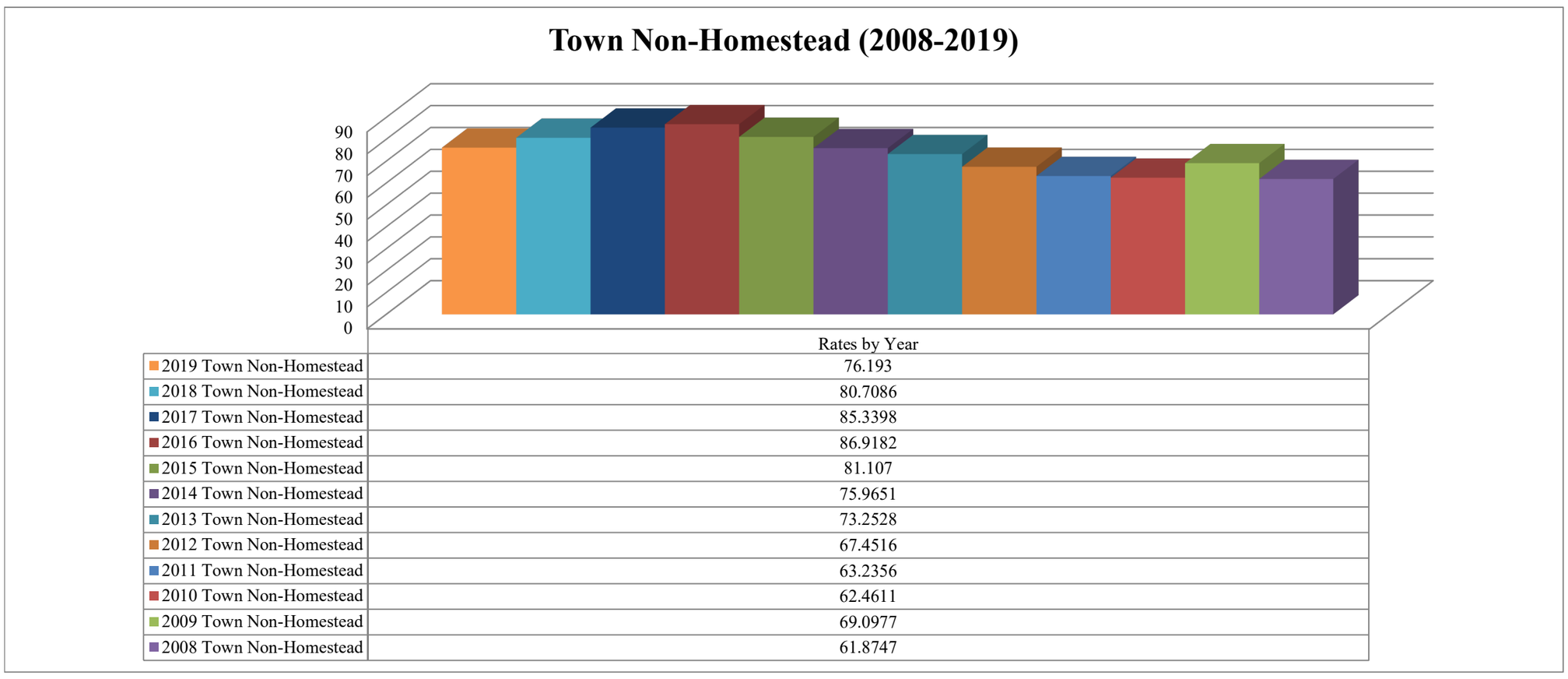
Master Tax Rate List

2011 School Homestead	176.039
2011 School Non-Homestead	254.2602
January 2010 Town Tax Rates	**Rate**
2010 Town Homestead	32.8792
2010 Town Non-Homestead	62.4611
2010 County	11.2172
September 2010 School Tax Rates	**Rate**
2010 School Homestead	177.623
2010 School Non-Homestead	272.0542
January 2009 Town Tax Rates	**Rate**
2009 Town Homestead	32.8777
2009 Town Non-Homestead	69.0977
2009 County	12.0287
September 2009 School Tax Rates	**Rate**
2009 School Homestead	147.1134
2009 School Non-Homestead	248.9491
January 2008 Town Tax Rates	**Rate**
2008 Town Homestead	30.7631
2008 Town Non-Homestead	61.8747
2008 County	10.998
September 2008 School Tax Rates	**Rate**
2008 School Homestead	147.1134
2008 School Non-Homestead	248.9491
September 2007 School Tax Rates	**Rate**
2007 School Homestead	153.3512
2007 School Non-Homestead	287.1754

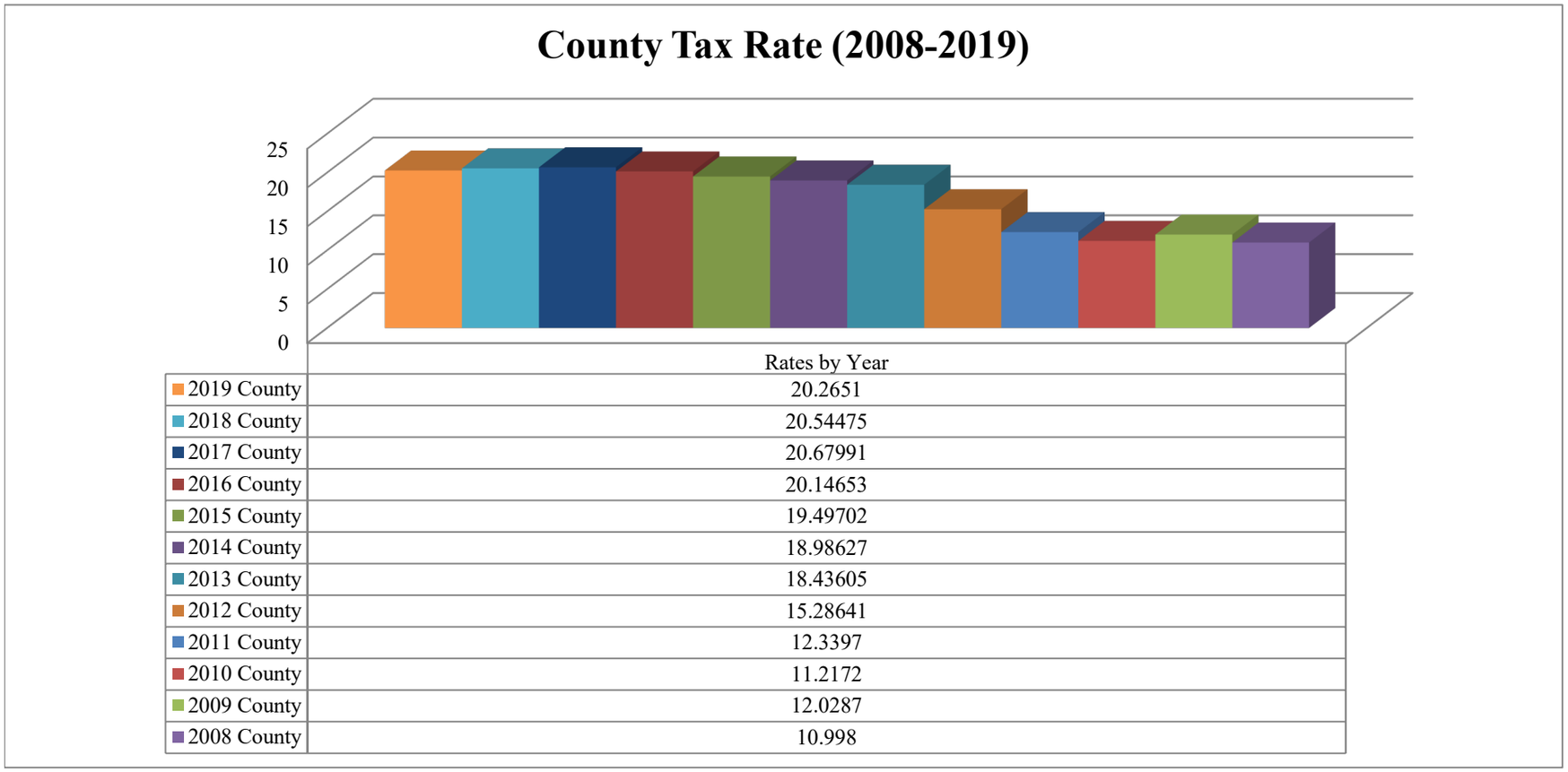
Year	Rate
2019 Town Homestead	36.008
2018 Town Homestead	35.5617
2017 Town Homestead	35.7881
2016 Town Homestead	36.4146
2015 Town Homestead	37.4596
2014 Town Homestead	38.0743
2013 Town Homestead	39.3013
2012 Town Homestead	38.3157
2011 Town Homestead	37.797
2010 Town Homestead	32.8792
2009 Town Homestead	32.8777
2008 Town Homestead	30.7631



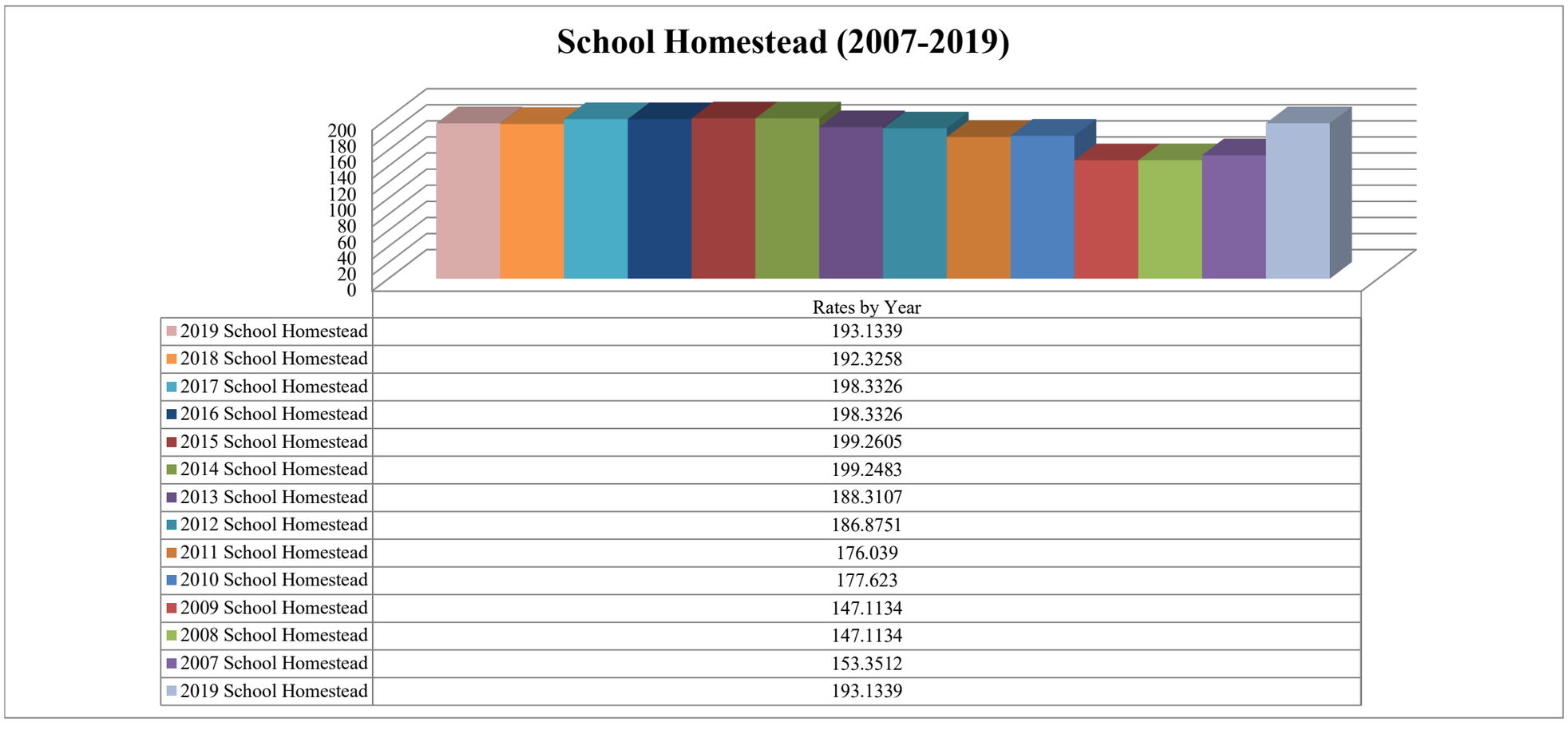
Year	Rate
2019 Town Non-Homestead	76.193
2018 Town Non-Homestead	80.7086
2017 Town Non-Homestead	85.3398
2016 Town Non-Homestead	86.9182
2015 Town Non-Homestead	81.107
2014 Town Non-Homestead	75.9651
2013 Town Non-Homestead	73.2528
2012 Town Non-Homestead	67.4516
2011 Town Non-Homestead	63.2356
2010 Town Non-Homestead	62.4611
2009 Town Non-Homestead	69.0977
2008 Town Non-Homestead	61.8747



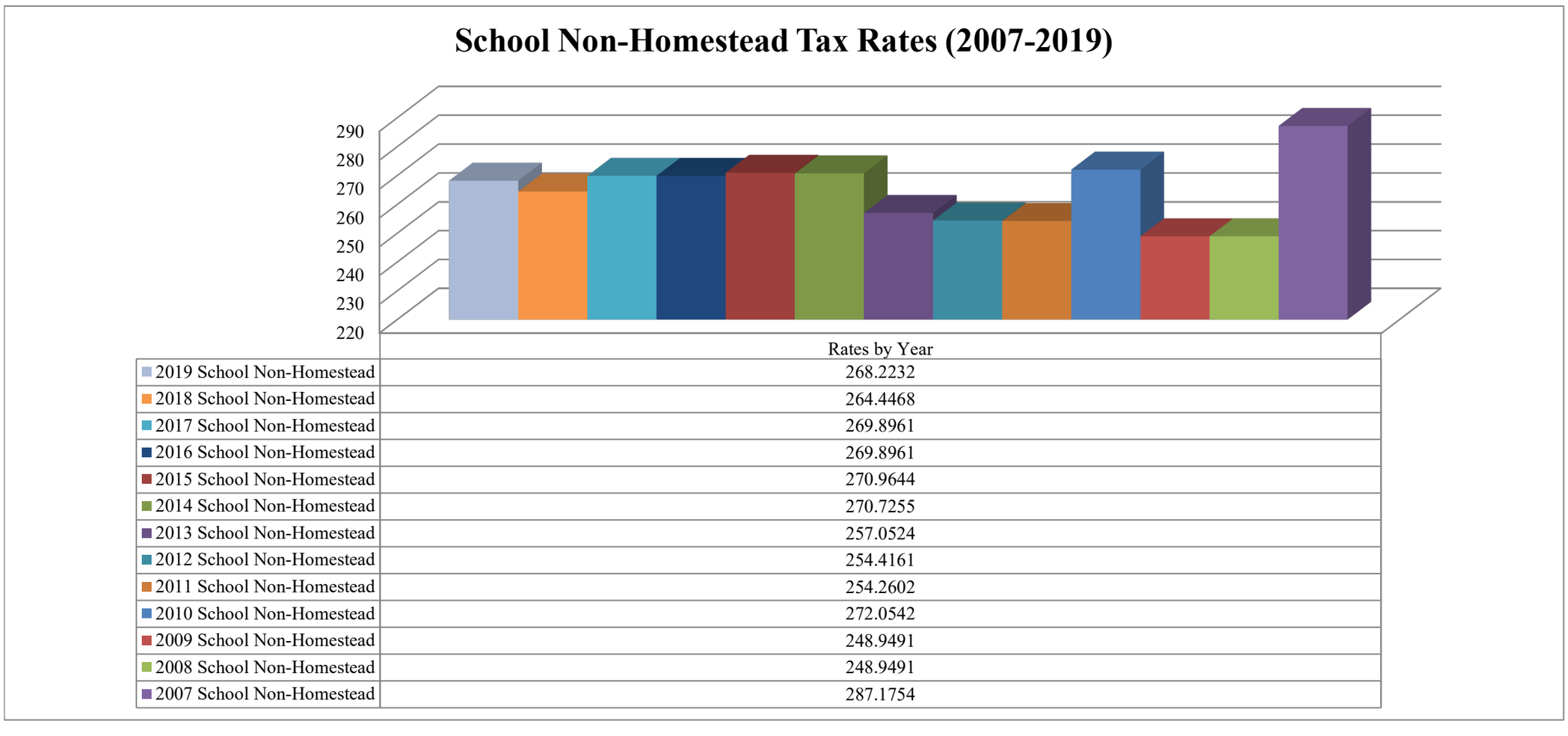
Year	Rate
2019 County	20.2651
2018 County	20.54475
2017 County	20.67991
2016 County	20.14653
2015 County	19.49702
2014 County	18.98627
2013 County	18.43605
2012 County	15.28641
2011 County	12.3397
2010 County	11.2172
2009 County	12.0287
2008 County	10.998



Year	Rate
2019 School Homestead	193.1339
2018 School Homestead	192.3258
2017 School Homestead	198.3326
2016 School Homestead	198.3326
2015 School Homestead	199.2605
2014 School Homestead	199.2483
2013 School Homestead	188.3107
2012 School Homestead	186.8751
2011 School Homestead	176.039
2010 School Homestead	177.623
2009 School Homestead	147.1134
2008 School Homestead	147.1134
2007 School Homestead	153.3512



Year	Rate
2019 School Non-Homestead	268.2232
2018 School Non-Homestead	264.4468
2017 School Non-Homestead	269.8961
2016 School Non-Homestead	269.8961
2015 School Non-Homestead	270.9644
2014 School Non-Homestead	270.7255
2013 School Non-Homestead	257.0524
2012 School Non-Homestead	254.4161
2011 School Non-Homestead	254.2602
2010 School Non-Homestead	272.0542
2009 School Non-Homestead	248.9491
2008 School Non-Homestead	248.9491
2007 School Non-Homestead	287.1754



Appendix P: Fiscal Impact Analysis Calculations

Rutgers University, Center for Urban Policy Research

Residential Demographic Multipliers

—

Estimates of the Occupants of New Housing

(Residents, School-Age Children, Public School-Age Children)
by State, Housing Type, Housing Size, and Housing Price

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June 2006

DESCRIPTION, DEFINITION, AND ORGANIZATION OF RESIDENTIAL DEMOGRAPHIC MULTIPLIERS

The national, state, and District of Columbia residential demographic multipliers are derived from the 2000 U.S. Census 5-Percent Public Use Microdata Sample (PUMS). The demographic multipliers include the following data fields and organization:

1. ***Household Size (HS)*:** Total persons per housing unit.

2. ***Age distribution of the household members*** organized into the following age categories: 0–4, 5–13, 14–17, 18–24, 25–44, 45–64, 65–74, 75+.

3. ***Total school-age children (SAC)*** or number of persons in the household of school age, defined as those 5 to 17 years old. (The SAC is the same as the combined number of household members in the 5–13 and 14–17 age categories.)

4. ***Total public school-age children (PSAC),*** or the SAC who attend public schools.

5. ***The SAC and PSAC by grade group*** organized as follows: kindergarten (K)–grade 2, grades 3–6, grades 7–9, grades 10–12, and grade 9 by itself. The above data permit the analyst to tabulate the SAC and PSAC by differing school levels (e.g., K–6, 7–12, and 9–12).

The demographic fields shown above are differentiated by ***housing type, housing size, housing price, and housing tenure—***four variables that have been found by Rutgers University to be associated with statistically significant differences in the HS, SAC, and PSAC. The multipliers are calculated for ***new housing,*** here defined as units enumerated in the 2000 census and built from 1990-2000.

The housing or structure types include the following: ***single-family detached; single-family attached,*** sometimes referred to as townhouses or townhomes; ***larger (5-or-more-unit) multifamily buildings,*** such as garden apartments or stacked flats; ***smaller multifamily structures (2 to 4 units),*** such as a starter two-family home; and ***mobile homes.*** As the 2000 census, the source for the residential multipliers, does not have information on the stories in a housing structure (this was last available in the 1980 census), multiplier presentations cannot disaggregate multifamily housing into garden, mid-rise, and high-rise categories.

Housing-unit size is measured by the number of bedrooms, and data are presented for housing units ranging from ***1 to 5 bedrooms***. There is an association between housing type and number of bedrooms, and the demographic multiplier tables present the common configurations for each housing type. For instance, demographic data are shown for 1- through 3-bedroom multifamily units and not for 4- to 5-bedroom units of this type because multifamily housing tends to be built with fewer rather than more bedrooms. The opposite is the case for single-family detached homes; in this instance, data are presented for 2- to 5-bedroom units as opposed to 1-bedroom units because detached housing is typically built with more rather than fewer bedrooms.

Housing is additionally classified by tenure: ***ownership*** or ***rental***. According to the census, "A housing unit is owner-occupied if the owner or co-owner lives in the unit even if it is mortgaged or not fully paid for. . . . All occupied housing units that are not owner-occupied, whether they are rented for cash rent or occupied without payment of cash rent, are classified as renter-occupied."

There is a further differentiation of the demographic profiles by housing value or rent. The census definitions for "value" and "rent" are shown on the Definitions page; with regard to the latter, the current study indicates the "gross rent" (rent with utilities) rather than the "contract rent."

Values and gross rents reported in the 2000 census are updated to 2005 using a residential price inflation index available from the Federal Housing Finance Board. A separate price index is applied for the nation, for each of the 50 states, and for the District of Columbia.

The demographic profiles by 2005 housing values and gross rents are organized following a four-tiered classification: all ***value or rent housing,*** and then housing arrayed by ***terciles (thirds) of value or rent*** (units at the 1st–33rd percentile of value or rent; units at the 33rd through 66th percentile of value or rent; and units at the 67th–100th percentile of value or rent.)

DEFINITIONS OF DATA CONTAINED IN THE U.S. CENSUS OF POPULATION AND HOUSING PUBLIC USE MICRODATA SAMPLE (PUMS) 2000 AND OTHER MULTIPLIER TERMS

TERMS	*DEFINITION/COMMENT*
Bedrooms (BR)	The number of rooms that would be listed as bedrooms if the house, apartment, or mobile home were listed on the market for sale or rent even if these rooms are currently used for other purposes.
Housing Categories (Structure Type)	***Single-family, detached.*** This is a 1-unit structure detached from any other house; that is, with open space on all four sides. Such structures are considered detached if they have an adjoining shed or garage. ***Single- family attached.*** This is a 1-unit structure that has one or more walls extending from ground to roof separating it from adjoining structures. In row houses (sometimes called townhouses), double houses, or houses attached to nonresidential structures, each house is a separate, attached structure if the dividing or common wall goes from ground to roof. ***2-4 units.*** These are units in structures containing 2, 3, or 4 housing units. ***5+ units***. These are units in structures containing 5 or more housing units. ***Mobile home.*** Both occupied and vacant mobile homes to which no permanent rooms have been added are counted in this category. Mobile homes used only for business purposes or for extra sleeping space, and mobile homes for sale on a dealer's lot, at the factory, or in storage, are not counted in the housing inventory. In 1990, the category was "mobile home or trailer."
Household Size	The total number of persons in a ***housing unit.***
Housing Tenure (Ownership or Rental)	A ***housing unit*** is owner-occupied if the owner or co-owner lives in the unit even if it is mortgaged or not fully paid for. All occupied housing units that are not owner-occupied, whether they are rented for cash rent or occupied without payment of cash rent, are classified as renter-occupied.
Housing Unit	A ***housing unit*** may be a house, an apartment, a mobile home, a group of rooms, or a single room that is occupied (or if vacant, is intended for occupancy as separate living quarters).
Housing Value (Rent)	Housing value is the census respondent's estimate of how much the property would sell for if it were for sale. In the current study, the value of a rented unit in a 1- to 4-unit structure is estimated to be 100 times the monthly ***gross rent,*** and all such units are included with owner-occupied units in calculating the multipliers. The housing value and rents indicated by the 2000 census were updated to 2005 using a residential price inflation index (available from the Federal Housing Finance Board) for the nation, for each state, and for the District of Columbia. Housing value or rent is categorized into a four-tier classification: all value (or rent) housing, and then housing units arrayed by terciles (thirds) of value (or rent).
Housing Rent (Contract Rent)	Contract rent is the monthly rent agreed to or contracted for, regardless of any furnishings, utilities, fees, meals, or services that may be included.
Housing Rent (Gross Rent)	Gross rent is the ***contract rent*** plus the estimated average monthly cost of utilities (electric, gas, water and sewer) and fuels (oil, coal, kerosene, wood, and the like) if these are paid by the renter (or paid for the renter by someone else). In the current study, the monthly gross rents are indicated in the demographic table.
Insufficient Sample	This notation in a table means that fewer than 600 weighted observations were counted for a housing type/bedroom/value combination or for an entire housing type/bedroom combination.
Public School-Age Children (PSAC)	The ***school-age children*** attending public school.
Residential Demographic Multipliers	Multipliers show the population associated with different ***housing categories*** as well as housing differentiated by ***housing value***, housing size (***bedrooms***), and ***housing tenure***.
School-Age Children (SAC)	The household members of elementary and secondary school age, defined here as those 5 through 17 years of age.

NEW YORK (1--1) ALL PERSONS IN UNIT: TOTAL PERSONS AND PERSONS BY AGE

STRUCTURE TYPE /BEDROOMS/ VALUE (2005)/TENURE	TOTAL PERSONS	AGE 0-4	5-13	14-17	18-24	25-44	45-64	65-74	75+
Single-Family Detached, 2 BR									
All Values	2.31	0.16	0.23	0.06	0.10	0.80	0.64	0.20	0.12
Less than $106,000	2.25	0.15	0.26	0.09	0.12	0.82	0.56	0.16	0.09
$106,000 to $164,500	2.31	0.15	0.23	0.05	0.09	0.79	0.67	0.19	0.14
More than $164,500	2.37	0.17	0.20	0.04	0.08	0.77	0.71	0.25	0.14
Single-Family Detached, 3 BR									
All Values	3.06	0.31	0.55	0.16	0.12	1.21	0.56	0.11	0.05
Less than $135,000	3.09	0.27	0.65	0.20	0.15	1.21	0.47	0.09	0.06
$135,000 to $194,500	3.11	0.36	0.55	0.16	0.11	1.28	0.50	0.11	0.05
More than $194,500	2.95	0.28	0.45	0.13	0.11	1.10	0.72	0.12	0.04
Single-Family Detached, 4 BR									
All Values	3.76	0.42	0.91	0.26	0.15	1.35	0.58	0.07	0.03
Less than $224,500	3.87	0.38	0.95	0.34	0.19	1.40	0.50	0.07	0.03
$224,500 to $329,500	3.74	0.43	0.91	0.24	0.12	1.39	0.56	0.06	0.03
More than $329,500	3.67	0.43	0.86	0.19	0.14	1.26	0.68	0.08	0.04
Single-Family Detached, 5 BR									
All Values	4.52	0.47	1.16	0.42	0.24	1.36	0.70	0.11	0.06
Less than $329,500	4.84	0.46	1.18	0.56	0.34	1.47	0.60	0.15	0.07
$329,500 to $748,500	4.43	0.47	1.13	0.38	0.20	1.35	0.72	0.10	0.07
More than $748,500	4.23	0.51	1.19	0.29	0.15	1.18	0.85	0.05	0.03
Single-Family Attached, 2 BR									
All Values	2.16	0.16	0.16	0.06	0.13	0.73	0.57	0.23	0.13
Less than $135,000	2.10	0.17	0.19	0.07	0.11	0.81	0.48	0.18	0.10
$135,000 to $194,500	2.23	0.17	0.18	0.06	0.16	0.75	0.56	0.22	0.13
More than $194,500	2.09	0.13	0.10	0.03	0.07	0.58	0.70	0.30	0.17
Single-Family Attached, 3 BR									
All Values	3.08	0.28	0.44	0.18	0.24	1.01	0.69	0.16	0.07
Less than $164,500	3.10	0.26	0.60	0.21	0.27	0.96	0.59	0.14	0.08
$164,500 to $269,500	3.17	0.30	0.45	0.19	0.25	1.06	0.70	0.15	0.07
More than $269,500	2.83	0.28	0.26	0.12	0.22	0.95	0.76	0.18	0.05
Single-Family Attached, 4 BR									
All Values	3.83	0.26	0.88	0.31	0.34	1.11	0.71	0.14	0.09
Less than $224,500	4.09	0.15	1.15	0.39	0.60	1.09	0.61	0.07	0.03
$224,500 to $329,500	3.89	0.28	0.78	0.34	0.28	1.09	0.73	0.23	0.15
More than $329,500		Insufficient Sample							
5+ Units–Own, 1 BR									
All Values	1.86	0.08	0.15	0.02	0.12	0.84	0.32	0.19	0.14
Less than $164,500	1.99	0.09	0.21	0.00	0.12	0.68	0.34	0.36	0.20
$164,500 to $269,500	1.82	0.09	0.16	0.03	0.05	0.87	0.31	0.14	0.17
More than $269,500	1.77	0.05	0.10	0.04	0.19	0.94	0.32	0.09	0.04
5+ Units–Own, 2 BR									
All Values	1.88	0.08	0.11	0.04	0.08	0.56	0.54	0.25	0.21
Less than $135,000	1.54	0.12	0.08	0.01	0.06	0.43	0.45	0.17	0.21
$135,000 to $329,500	2.05	0.07	0.12	0.06	0.09	0.55	0.55	0.32	0.27
More than $329,500	1.88	0.07	0.11	0.03	0.09	0.70	0.59	0.19	0.09
5+ Units–Own, 3 BR									
All Values	3.00	0.34	0.35	0.25	0.13	1.00	0.72	0.10	0.11
Less than $224,500		Insufficient Sample							
$224,500 to $748,500		Insufficient Sample							
More than $748,500		Insufficient Sample							

NEW YORK (1--2) ALL PERSONS IN UNIT: TOTAL PERSONS AND PERSONS BY AGE

STRUCTURE TYPE /BEDROOMS/ VALUE (2005)/TENURE	TOTAL PERSONS	AGE 0-4	5-13	14-17	18-24	25-44	45-64	65-74	75+
5+ Units–Rent, 1 BR									
All Values	1.66	0.10	0.13	0.03	0.15	0.58	0.25	0.18	0.24
Less than $500	1.32	0.03	0.07	0.02	0.05	0.15	0.21	0.37	0.41
$500 to $1,000	1.99	0.18	0.25	0.05	0.24	0.70	0.29	0.11	0.15
More than $1,000	1.67	0.08	0.06	0.02	0.14	0.87	0.25	0.07	0.17
5+ Units–Rent, 2 BR									
All Values	2.51	0.27	0.38	0.12	0.25	0.95	0.34	0.08	0.12
Less than $750	2.68	0.31	0.57	0.17	0.28	0.93	0.28	0.08	0.08
$750 to $1,100	2.55	0.29	0.39	0.12	0.25	0.95	0.33	0.07	0.13
More than $1,100	2.31	0.19	0.18	0.06	0.23	0.98	0.40	0.10	0.16
5+ Units–Rent, 3 BR									
All Values	4.20	0.52	0.97	0.40	0.63	1.17	0.45	0.06	0.02
Less than $750	4.23	0.55	1.13	0.47	0.59	1.10	0.32	0.08	0.01
$750 to $1,250	4.54	0.61	1.11	0.39	0.68	1.20	0.50	0.04	0.02
More than $1,250	3.81	0.39	0.66	0.33	0.63	1.20	0.51	0.05	0.03
2-4 Units, 1 BR									
All Values	2.20	0.16	0.21	0.10	0.24	0.85	0.40	0.13	0.11
Less than $74,500	1.92	0.16	0.19	0.06	0.16	0.71	0.38	0.14	0.14
$74,500 to $110,000	2.14	0.14	0.21	0.09	0.28	0.83	0.35	0.15	0.08
More than $110,000	2.54	0.19	0.22	0.14	0.28	1.00	0.47	0.12	0.12
2-4 Units, 2 BR									
All Values	2.58	0.29	0.36	0.14	0.28	0.92	0.38	0.11	0.10
Less than $86,000	2.49	0.30	0.35	0.12	0.41	0.85	0.33	0.08	0.05
$86,000 to $132,000	2.63	0.29	0.43	0.12	0.25	1.03	0.34	0.10	0.08
More than $132,000	2.63	0.27	0.29	0.16	0.18	0.89	0.49	0.17	0.18
2-4 Units, 3 BR									
All Values	3.73	0.42	0.77	0.27	0.35	1.30	0.51	0.08	0.04
Less than $113,500	3.73	0.44	0.84	0.31	0.40	1.29	0.34	0.08	0.01
$113,500 to $213,500	3.83	0.41	0.84	0.28	0.36	1.35	0.46	0.06	0.06
More than $213,500	3.62	0.39	0.62	0.21	0.28	1.24	0.73	0.11	0.03
Mobile, 2 BR									
All Values	2.00	0.13	0.19	0.06	0.12	0.59	0.55	0.22	0.13
Less than $33,000	1.89	0.11	0.15	0.05	0.14	0.56	0.53	0.23	0.12
$33,000 to $54,000	1.98	0.11	0.21	0.05	0.10	0.60	0.56	0.20	0.15
More than $54,000	2.12	0.16	0.19	0.08	0.15	0.61	0.56	0.25	0.12
Mobile, 3 BR									
All Values	2.94	0.27	0.50	0.20	0.20	1.06	0.52	0.13	0.06
Less than $45,000	2.93	0.29	0.53	0.20	0.23	1.08	0.43	0.12	0.06
$45,000 to $66,000	2.93	0.27	0.51	0.19	0.19	1.04	0.54	0.13	0.06
More than $66,000	2.97	0.24	0.47	0.21	0.19	1.06	0.59	0.14	0.07
Mobile, 4 BR									
All Values	4.34	0.32	1.07	0.63	0.35	1.40	0.49	0.05	0.04
Less than $54,000		Insufficient Sample							
$54,000 to $78,000	4.41	0.35	0.96	0.64	0.38	1.53	0.46	0.04	0.05
More than $78,000		Insufficient Sample							

NEW YORK (2--1) ALL SCHOOL CHILDREN: SCHOOL-AGE CHILDREN (SAC)

STRUCTURE TYPE /BEDROOMS/ VALUE (2005)/TENURE	TOTAL SAC	GRADE K–2	3-6	7-9	10-12	Gr. 9 Only
Single-Family Detached, 2 BR						
All Values	0.30	0.09	0.10	0.07	0.04	0.02
Less than $106,000	0.36	0.08	0.11	0.10	0.06	0.03
$106,000 to $164,500	0.28	0.08	0.10	0.06	0.03	0.03
More than $164,500	0.25	0.10	0.07	0.05	0.03	0.02
Single-Family Detached, 3 BR						
All Values	0.71	0.21	0.24	0.15	0.11	0.05
Less than $135,000	0.85	0.23	0.29	0.19	0.14	0.06
$135,000 to $194,500	0.71	0.22	0.24	0.14	0.11	0.05
More than $194,500	0.58	0.18	0.20	0.12	0.09	0.04
Single-Family Detached, 4 BR						
All Values	1.16	0.32	0.41	0.25	0.18	0.07
Less than $224,500	1.29	0.30	0.45	0.29	0.25	0.10
$224,500 to $329,500	1.15	0.34	0.39	0.24	0.17	0.07
More than $329,500	1.05	0.31	0.38	0.23	0.14	0.06
Single-Family Detached, 5 BR						
All Values	1.58	0.39	0.53	0.36	0.30	0.12
Less than $329,500	1.75	0.37	0.54	0.46	0.38	0.19
$329,500 to $748,500	1.51	0.38	0.52	0.33	0.29	0.09
More than $748,500	1.47	0.45	0.54	0.27	0.21	0.08
Single-Family Attached, 2 BR						
All Values	0.22	0.08	0.07	0.04	0.04	0.02
Less than $135,000	0.25	0.09	0.07	0.04	0.05	0.02
$135,000 to $194,500	0.25	0.08	0.08	0.04	0.04	0.02
More than $194,500	0.14	0.05	0.04	0.03	0.02	0.02
Single-Family Attached, 3 BR						
All Values	0.62	0.14	0.22	0.13	0.14	0.04
Less than $164,500	0.81	0.19	0.33	0.14	0.15	0.06
$164,500 to $269,500	0.64	0.13	0.21	0.14	0.16	0.03
More than $269,500	0.39	0.09	0.11	0.11	0.08	0.05
Single-Family Attached, 4 BR						
All Values	1.19	0.19	0.48	0.29	0.24	0.07
Less than $224,500	1.54	0.26	0.62	0.39	0.27	0.12
$224,500 to $329,500	1.12	0.09	0.45	0.31	0.27	0.07
More than $329,500		Insufficient Sample				
5+ Units–Own, 1 BR						
All Values	0.18	0.06	0.08	0.02	0.02	0.00
Less than $164,500	0.21	0.06	0.08	0.06	0.00	0.00
$164,500 to $269,500	0.19	0.08	0.08	0.00	0.03	0.00
More than $269,500	0.14	0.02	0.08	0.00	0.04	0.00
5+ Units–Own, 2 BR						
All Values	0.15	0.03	0.04	0.05	0.03	0.02
Less than $135,000	0.09	0.02	0.00	0.06	0.01	0.00
$135,000 to $329,500	0.19	0.06	0.06	0.04	0.03	0.03
More than $329,500	0.14	0.00	0.06	0.05	0.03	0.00
5+ Units–Own, 3 BR						
All Values	0.59	0.13	0.11	0.16	0.19	0.06
Less than $224,500		Insufficient Sample				
$224,500 to $748,500		Insufficient Sample				
More than $748,500		Insufficient Sample				

NEW YORK (2--2) ALL SCHOOL CHILDREN: SCHOOL-AGE CHILDREN (SAC)

STRUCTURE TYPE /BEDROOMS/ VALUE (2005)/TENURE	TOTAL SAC	GRADE K–2	3-6	7-9	10-12	Gr. 9 Only
5+ Units–Rent, 1 BR						
All Values	0.16	0.06	0.05	0.03	0.02	0.01
Less than $500	0.10	0.03	0.03	0.02	0.01	0.01
$500 to $1,000	0.30	0.11	0.10	0.05	0.04	0.01
More than $1,000	0.08	0.03	0.02	0.02	0.01	0.01
5+ Units–Rent, 2 BR						
All Values	0.49	0.15	0.17	0.10	0.09	0.03
Less than $750	0.74	0.20	0.29	0.12	0.13	0.04
$750 to $1,100	0.51	0.16	0.15	0.11	0.09	0.03
More than $1,100	0.23	0.07	0.06	0.05	0.04	0.01
5+ Units–Rent, 3 BR						
All Values	1.36	0.30	0.48	0.31	0.27	0.12
Less than $750	1.59	0.27	0.63	0.38	0.32	0.15
$750 to $1,250	1.50	0.37	0.51	0.34	0.28	0.11
More than $1,250	1.00	0.25	0.31	0.21	0.23	0.10
2-4 Units, 1 BR						
All Values	0.30	0.09	0.08	0.07	0.07	0.02
Less than $74,500	0.25	0.06	0.07	0.08	0.05	0.02
$74,500 to $110,000	0.30	0.10	0.09	0.04	0.07	0.02
More than $110,000	0.36	0.11	0.06	0.08	0.10	0.04
2-4 Units, 2 BR						
All Values	0.49	0.12	0.17	0.10	0.10	0.03
Less than $86,000	0.47	0.12	0.16	0.10	0.09	0.03
$86,000 to $132,000	0.55	0.14	0.21	0.11	0.09	0.03
More than $132,000	0.45	0.10	0.13	0.10	0.12	0.04
2-4 Units, 3 BR						
All Values	1.04	0.25	0.37	0.21	0.20	0.07
Less than $113,500	1.16	0.28	0.42	0.25	0.20	0.11
$113,500 to $213,500	1.11	0.27	0.42	0.20	0.22	0.06
More than $213,500	0.83	0.21	0.27	0.18	0.17	0.04
Mobile, 2 BR						
All Values	0.25	0.07	0.09	0.04	0.05	0.01
Less than $33,000	0.19	0.07	0.05	0.04	0.04	0.01
$33,000 to $54,000	0.26	0.07	0.12	0.03	0.04	0.01
More than $54,000	0.27	0.08	0.07	0.05	0.06	0.02
Mobile, 3 BR						
All Values	0.70	0.17	0.23	0.16	0.13	0.06
Less than $45,000	0.72	0.20	0.23	0.15	0.14	0.06
$45,000 to $66,000	0.69	0.16	0.26	0.16	0.11	0.07
More than $66,000	0.68	0.16	0.21	0.16	0.15	0.06
Mobile, 4 BR						
All Values	1.70	0.31	0.52	0.40	0.46	0.17
Less than $54,000		Insufficient Sample				
$54,000 to $78,000	1.60	0.31	0.48	0.32	0.49	0.15
More than $78,000		Insufficient Sample				

NEW YORK (3--1) ALL PUBLIC SCHOOL CHILDREN: SCHOOL-AGE CHILDREN IN PUBLIC SCHOOL (PSAC)

STRUCTURE TYPE /BEDROOMS/ VALUE (2005)/TENURE	TOTAL PSAC	PUBLIC SCHOOL GRADE K-2	3-6	7-9	10-12	Gr. 9 Only
Single-Family Detached, 2 BR						
All Values	0.27	0.07	0.09	0.07	0.04	0.02
Less than $106,000	0.32	0.08	0.10	0.09	0.06	0.03
$106,000 to $164,500	0.26	0.07	0.10	0.06	0.03	0.03
More than $164,500	0.21	0.07	0.07	0.05	0.02	0.02
Single-Family Detached, 3 BR						
All Values	0.64	0.18	0.22	0.14	0.10	0.05
Less than $135,000	0.79	0.21	0.27	0.18	0.13	0.05
$135,000 to $194,500	0.63	0.18	0.22	0.13	0.10	0.05
More than $194,500	0.50	0.14	0.17	0.11	0.08	0.04
Single-Family Detached, 4 BR						
All Values	1.00	0.25	0.36	0.23	0.17	0.07
Less than $224,500	1.15	0.25	0.41	0.27	0.23	0.09
$224,500 to $329,500	0.98	0.27	0.34	0.22	0.16	0.06
More than $329,500	0.87	0.24	0.32	0.19	0.11	0.05
Single-Family Detached, 5 BR						
All Values	1.23	0.29	0.41	0.28	0.24	0.10
Less than $329,500	1.48	0.30	0.45	0.41	0.32	0.17
$329,500 to $748,500	1.14	0.26	0.40	0.24	0.23	0.08
More than $748,500	1.03	0.34	0.38	0.17	0.14	0.06
Single-Family Attached, 2 BR						
All Values	0.17	0.06	0.05	0.03	0.03	0.01
Less than $135,000	0.23	0.08	0.07	0.04	0.04	0.02
$135,000 to $194,500	0.18	0.06	0.06	0.03	0.04	0.01
More than $194,500	0.11	0.03	0.03	0.03	0.02	0.02
Single-Family Attached, 3 BR						
All Values	0.52	0.11	0.19	0.11	0.11	0.03
Less than $164,500	0.69	0.15	0.28	0.12	0.13	0.05
$164,500 to $269,500	0.54	0.11	0.18	0.12	0.13	0.03
More than $269,500	0.28	0.06	0.10	0.08	0.05	0.03
Single-Family Attached, 4 BR						
All Values	0.86	0.11	0.31	0.23	0.21	0.06
Less than $224,500	0.98	0.17	0.35	0.25	0.20	0.08
$224,500 to $329,500	0.92	0.06	0.32	0.27	0.27	0.07
More than $329,500		Insufficient Sample				
5+ Units–Own, 1 BR						
All Values	0.15	0.05	0.07	0.01	0.02	0.00
Less than $164,500	0.18	0.06	0.08	0.04	0.00	0.00
$164,500 to $269,500	0.16	0.06	0.08	0.00	0.03	0.00
More than $269,500	0.10	0.02	0.05	0.00	0.04	0.00
5+ Units–Own, 2 BR						
All Values	0.09	0.02	0.04	0.02	0.01	0.01
Less than $135,000	0.00	0.00	0.00	0.00	0.00	0.00
$135,000 to $329,500	0.15	0.05	0.06	0.02	0.03	0.02
More than $329,500	0.05	0.00	0.03	0.02	0.00	0.00
5+ Units–Own, 3 BR						
All Values	0.49	0.10	0.07	0.14	0.19	0.06
Less than $224,500		Insufficient Sample				
$224,500 to $748,500		Insufficient Sample				
More than $748,500		Insufficient Sample				

NEW YORK (3--2) ALL PUBLIC SCHOOL CHILDREN: SCHOOL-AGE CHILDREN IN PUBLIC SCHOOL (PSAC)

STRUCTURE TYPE /BEDROOMS/ VALUE (2005)/TENURE	TOTAL PSAC	PUBLIC SCHOOL GRADE K-2	3-6	7-9	10-12	Gr. 9 Only
5+ Units–Rent, 1 BR						
All Values	0.15	0.05	0.05	0.03	0.02	0.01
Less than $500	0.09	0.03	0.03	0.02	0.01	0.01
$500 to $1,000	0.27	0.09	0.09	0.05	0.04	0.01
More than $1,000	0.07	0.02	0.02	0.01	0.01	0.01
5+ Units–Rent, 2 BR						
All Values	0.43	0.13	0.14	0.08	0.08	0.03
Less than $750	0.67	0.19	0.26	0.11	0.12	0.04
$750 to $1,100	0.45	0.14	0.13	0.09	0.08	0.03
More than $1,100	0.16	0.05	0.05	0.04	0.03	0.01
5+ Units–Rent, 3 BR						
All Values	1.07	0.23	0.37	0.25	0.23	0.09
Less than $750	1.27	0.22	0.47	0.30	0.29	0.10
$750 to $1,250	1.30	0.31	0.44	0.31	0.23	0.11
More than $1,250	0.63	0.14	0.20	0.12	0.17	0.06
2-4 Units, 1 BR						
All Values	0.27	0.08	0.07	0.06	0.07	0.02
Less than $74,500	0.23	0.06	0.07	0.07	0.04	0.02
$74,500 to $110,000	0.28	0.09	0.09	0.04	0.06	0.02
More than $110,000	0.30	0.09	0.05	0.07	0.09	0.03
2-4 Units, 2 BR						
All Values	0.43	0.10	0.14	0.10	0.09	0.03
Less than $86,000	0.44	0.11	0.15	0.09	0.09	0.03
$86,000 to $132,000	0.48	0.10	0.18	0.11	0.09	0.03
More than $132,000	0.36	0.08	0.09	0.09	0.11	0.03
2-4 Units, 3 BR						
All Values	0.83	0.17	0.29	0.19	0.18	0.06
Less than $113,500	1.02	0.20	0.37	0.25	0.19	0.11
$113,500 to $213,500	0.86	0.18	0.32	0.16	0.19	0.04
More than $213,500	0.62	0.12	0.18	0.17	0.15	0.03
Mobile, 2 BR						
All Values	0.24	0.07	0.08	0.04	0.05	0.01
Less than $33,000	0.19	0.07	0.05	0.04	0.04	0.01
$33,000 to $54,000	0.25	0.07	0.11	0.03	0.04	0.01
More than $54,000	0.27	0.08	0.07	0.05	0.06	0.02
Mobile, 3 BR						
All Values	0.69	0.17	0.23	0.16	0.13	0.06
Less than $45,000	0.71	0.20	0.23	0.15	0.14	0.05
$45,000 to $66,000	0.68	0.15	0.26	0.16	0.11	0.07
More than $66,000	0.67	0.15	0.21	0.15	0.15	0.06
Mobile, 4 BR						
All Values	1.61	0.28	0.50	0.38	0.45	0.16
Less than $54,000		Insufficient Sample				
$54,000 to $78,000	1.56	0.31	0.46	0.29	0.49	0.13
More than $78,000		Insufficient Sample				

Eagle Bay 264 Unit Proposal

Existing Property Value								
			0.1402	Stony Pt Eq Rate		Combined Mkt Val		$ 2,644,079.00
Existing Assessed and Market Property Value								
Property		Final 2019 Asmt		**Mkt Val**		Calc Assessed Value		Value/$1000
15.04-6-3		$ 140,000.00		$ 998,573.00		$ 139,999.93		140.00
15.04-6-4		$ 165,000.00		$1,176,890.00		$ 164,999.98		165.00
15.04-6-6		$ 65,700.00		$ 468,616.00		$ 65,699.96		65.70
Total				$2,644,079.00		$ 370,699.88		370.70

SOURCE: Final 2018 Stony Point Tax Roll

Existing Tax Revenue											
		Asd Val Tax Rate (2019)		**Parcel**		**Parcel**		**Parcel**			**Combined Revenue**
Tax District		Rate per $1,000		15.04-6-3		15.04-6-4		15.04-6-6			
Town	NH (Non-Homestead)	$ 76.19		$10,667		$12,572		$5,006			$28,245
	H (Homestead)	$ 36.01									
Fire	NH	$ 8.06		$1,129		$1,330		$530			$2,989
	H	**4.5088**									
Ambulance	NH	**2.4703**		$346		$408		$162			$916
	H	**1.3815**									
Lighting	NH	**1.3478**		$189		$222		$89			$500
	H	**0.7537**									
Solid Waste	NH	**1.79942**		$252		$297		$118			$667
	H										
County	NH	**20.2651**		$2,837		$3,344		$1,331			$7,512
	H	**20.2651**									
School	NH	**268.2232**		$37,551		$44,257		$17,622			$99,430
	H	**193.1339**									
Total* NH		**$ 378.36**		**$52,971**		**$62,430**		**$24,858**			**$140,259**
Total* H		**$ 256.05**									**$140,259**
*does not include solid transfer unit tax											

Estimated Project Tax Revenue									
		Mkt Val Tax Rate		**Mkt Value of Project**				**Est Tax Revenue of Project Nh**	**Est Tax Revenue of Project H&NH**
Town	NH	$ 10.68		Residential		$ 112,800,000		$ 1,253,990	$ 618,482
	H	$ 5.05							
Fire	NH	$ 1.13		NonResidential		$ 4,340,000		$ 132,698	$ 76,493
	H	$ 0.63							
Ambulance	NH	$ 0.35						$ 40,656	$ 23,437
	H	$ 0.19							
Lighting	NH	$ 0.19						$ 22,182	$ 12,787
	H	$ 0.11							
Solid Waste	NH	$ 0.25		Marina		$ 250,000		$ 29,615	$ 1,158

	H	$ -							
County	NH	$ 2.84		**Total Est Value**		**$ 117,390,000**		$ 333,525	$ 333,525
	H	$ 2.84							
School	NH	$ 37.60						$ 4,414,438	$ 3,226,934
	H	$ 27.08							
Total* NH		**$ 53.05**						**$ 6,227,105**	**$ 4,292,816**
Total* H		**$ 35.90**							
*Does not include solid waste transfer unit tax									

Estimated Project Value - Owner Occupied - 264 Units						
		SF	Value Per SF			
NonResidential		12,400	$350	$4,340,000		
		water slips	Val Per Slip			
Marina		100	$ 2,500	$ 250,000		
Residential		BR	Units	Sale Price		
	MF	1	46	$ 325,000		$ 14,950,000
	MF	2	210	$ 425,000		$ 89,250,000
	MF	3	8	$ 1,075,000		$ 8,600,000
		Unit Count	264			$ 112,800,000
Total Project Value Estimate				**$117,390,000**		

Per Capita Costs										
Resid Portion		**$ 7,836,866**		Per Capita Resid Cost		**$ 503**				
Non Resid Portion		**$ 2,419,713**		Per Capita NonRes Cost		**$ 155**				
								2014 NY Dept Labor		1894
		$ 10,256,579				$ 658		Stony Point Private Sector Jobs		
						$ 658				
Multipliers										
Residential										
		New Residents		637						
				Emp Per 1,000 sf		Est Employees				
NonResidential		Retail	3200	1.71		5.472	5			
		Restaurant	2000	6.26		12.52	13			
		Office	5100	6.6	(1 per 150sqft)	33.66	34			
						51.652	52	52		

TABLE 20: CURRENT AND PROJECTED TAX REVENUES

NON-HOMESTEAD

Taxing Authority	Assessed Value Tax Rate (2018)*	Current Taxes	Market Value Tax Rate**	Projected Taxes	Difference in Revenue
Rockland County	$20.54	$7,512	$3.14	$ 333,525	$326,012
Town of Stony Point	$80.71	$28,245	$12.34	$ 1,253,990	$1,225,746
Ambulance and Medical Services of the Town	$1.98	$916	$0.30	$ 40,656	$39,741
Department of General Services (lighting)	$1.50	$500	$0.23	$ 22,182	$ 21,683
North Rockland Central School District	$264.45	$99,430	$40.43	$ 4,414,438	$4,315,008
Solid Waste	$1.96	$667	$0.30	$ 29,615	$28,948
Total		**$140,259**		**$ 6,227,105**	**$ 6,086,846**

Note:
- Tax revenue calculations for Solid Waste treatment facility does not include solid waste transfer unit tax.
-*Assessed per $1000 valuation
- **Market value tax rate = Assessed Value Tax Rate (2019) * Stony Point Equalization Rate (0.1402)
- No homestead properties present currently but there may be a combination of homestead and non-homestead properties post completion of the Site Planning process.

HOMESTEAD & NON-HOMESTEAD

Taxing Authority	Assessed Value Tax Rate (2018)*		Current Taxes	Market Value Taxe Rate**		Combined Projected Taxes	Difference in Revenue
	Non- Homestead	**Homestead**		**Non- Homestead**	**Homestead**		
Rockland County	$20.54	$20.54	$4,740	$3.14	$3.14	$368,756	$364,016
Town of Stony Point	$80.71	$35.56	$18,619	$12.34	$5.44	$669,979	$651,360
Stony Point Fire Department	$7.92	$4.16	$1,827	$1.21	$0.64	$772,271	$770,444
Ambulance and Medical Services of the Town	$1.98	$1.04	$457	$0.30	$0.16	$19,310	$18,853
Department of General Services (lighting)	$1.50	$0.79	$345	$0.23	$0.12	$14,607	$14,262
North Rockland Central School District	$264.45	$192.33	$61,008	$40.43	$29.41	$3,502,658	$3,441,650
Solid Waste	$1.96	NA	$453	$0.30	NA	$1,378	$925
Total			**$140,259**			$ 4,292,816	$ 4,152,558

Note:
- Tax revenue calculations for Solid Waste treatment facility does not include solid waste transfer unit tax.
- *Assessed per $1000 valuation
- **Market value tax rate = Assessed Value Tax Rate (2019) * Stony Point Equalization Rate (0.1402)
- No homestead properties present currently but there may be a combination of homestead and non-homestead properties post completion of the Site Planning process.

Source: 2019 Final Stony Point Tax Roll; Stony Point Assessor's Office

2018 Town of Stony Point Budget and per Capita Resid & NonResid Cost											
Total Appropraitions and Expenditures							$ 16,085,957				
Revenue from Tax Levy							$ 12,752,418				
Town Government											
	Town Departments				$ 1,814,608						
	Police				$ 4,302,575						
	Parks, Roads, Other Dept				$ 1,490,798						
	Zoning, Planning, Senior Citizen				$ 248,495						
						$ 7,856,476	Subtotal Depts				
	Special Items, Bldgs, Exp				$ 561,580						
	Miscellaneos				$ 170,750						
	Equipmment				$ 242,440						
	Celebrations, Camps, Library				$ 578,108						
	Employee Benefits				$ 4,775,796						
	Debt Service				$ 788,207						
	Interfund Transfer				$ 1,377,056						
						$ 8,493,937	Subtotal Other				
						$ 16,350,413					
Special Districts											
	Ambulance				$ 413,143						
	Lighting				$ 313,095						
	Fire				$ 1,623,865						
	Solid Waste				$ 50,000						
						$ 2,400,103	Subtotal Spec Distr				
2017 ACS Stony Point Population				**15,595**	**Per Capita**	$ 504	Town Govt	(includes police)			
						$ 154	Spec Distr				
						$ 658	Combined				
Stony Point Parcels and Valuation 2018											
			Parcels				**Value**				**Avg**
Residential Parcels			4,765		87%		$ 217,441,309		66%		**76%**
Non Residential Parcels			693		13%		$ 114,462,625		34%		**24%**
Total Parcels			5,458		100%		$ 331,903,934		100%		**100%**
	Assume	**76%**	**of munic expenditures are for residential purposes**								
		24%	**of munic expenditures are for residential purposes**								
Budget											
Revenue from Tax Levy		**$ 12,752,418**									
									exclude police		
									$ 3,553,901	$ 228	

Per Capita Costs - 264 Units										
Resid Portion		**$ 9,743,891**		Per Capita Resid Cost		**$ 625**				
Non Resid Portion		**$ 3,008,527**		Per Capita NonRes Cost		**$ 193**				
								2014 NY Dept Labor		1894
		$ 12,752,418				$ 818		Stony Point Private Sector Jobs		
						$ 818				
Multipliers										
Residential										
		New Residents		637						
				Emp Per 1,000 sf		Est Employees				
NonResidential		Retail	3200	1.71		5.472	5			
		Restaurant	2000	6.26		12.52	13			
		Office	5100	6.6	(1 per 150sqft)	33.66	34			
						51.652	52	52		

Per Capita Costs - 200 Units										
Resid Portion		**$ 9,743,891**		Per Capita Resid Cost		**$ 625**				
Non Resid Portion		**$ 3,008,527**		Per Capita NonRes Cost		**$ 193**				
								2014 NY Dept Labor		1894
		$ 12,752,418				$ 818		Stony Point Private Sector Jobs		
						$ 818				
Multipliers										
Residential										
		New Residents		482						
				Emp Per 1,000 sf		Est Employees				
NonResidential		Retail	2175	1.71		3.71925	4			
		Restaurant	2000	6.26		12.52	13			
		Office	5285	6.6	(1 per 150sqft)	34.881	35			
						51.12025	52	51		

Per Capita Costs - 290 Units										
Resid Portion		**$ 9,743,891**		Per Capita Resid Cost		**$ 625**				
Non Resid Portion		**$ 3,008,527**		Per Capita NonRes Cost		**$ 193**				
								2014 NY Dept Labor		1894
		$ 12,752,418				$ 818		Stony Point Private Sector Jobs		
						$ 818				
Multipliers										
Residential										
		New Residents		743						
				Emp Per 1,000 sf		Est Employees				
NonResidential		Retail	0	1.71		0	0			
		Restaurant	20000	6.26		125.2	125			
		Office	0	6.6	(1 per 150sqft)	0	0			
						125.2	125	125		

Estimated Project Value - Owner Occupied - 200 Units						
		SF	Value Per SF			
NonResidential		8,200	$350	$2,870,000		
		water slips	Val Per Slip			
Marina		67	$ 2,500	$ 167,500		
Residential		BR	Units	Sale Price		
	MF	1	35	$ 325,000		$ 11,375,000
	MF	2	159	$ 425,000		$ 67,575,000
	MF	3	6	$ 1,075,000		$ 6,450,000
	MF	4	12	$1,433,000		$ 17,196,000
		Unit Count	212			$ 102,596,000
Total Project Value Estimate				**$105,633,500**		

Eagle Bay 200 Unit Alternative

Estimated Project Tax Revenue									
		Mkt Val Tax Rate		**Mkt Value of Project**				**Est Tax Revenue of Project Nh**	**Est Tax Revenue of Project H&NH**
Town	NH	$ 10.68		Residential		$ 102,596,000		$ 1,128,404	$ 550,385
	H	$ 5.05							
Fire	NH	$ 1.13		NonResidential		$ 2,870,000		$ 119,409	$ 68,288
	H	$ 0.63							
Ambulance	NH	$ 0.35						$ 36,585	$ 20,923
	H	$ 0.19							
Lighting	NH	$ 0.19						$ 19,961	$ 11,415
	H	$ 0.11							
Solid Waste	NH	$ 0.25		Marina		$ 167,500		$ 26,649	$ 766
	H	$ -							
County	NH	$ 2.84		**Total Est Value**		**$ 105,633,500**		$ 300,122	$ 300,122
	H	$ 2.84							
School	NH	$ 37.60						$ 3,972,336	$ 2,892,255
	H	$ 27.08							
Total* NH		**$ 53.05**						**$ 5,603,466**	**$ 3,844,155**
Total* H		**$ 35.90**							
*Does not include solid waste transfer unit tax									

Estimated Project Value - Owner Occupied - 290 Units						
		SF	Value Per SF			
NonResidential		20,000	$350	$7,000,000		
		water slips	Val Per Slip			
Marina		97	$ 2,500	$ 242,500		
Residential		BR	Units	Sale Price		
	MF	1	54	$ 325,000		$ 17,550,000
	MF	2	200	$ 425,000		$ 85,000,000
	MF	3	36	$ 1,075,000		$ 38,700,000
	MF	4	0	$0		$ -
		Unit Count	290			$ 141,250,000
Total Project Value Estimate				**$148,492,500**		

Eagle Bay 290 Unit Alternative

Estimated Project Tax Revenue									
		Mkt Val Tax Rate		**Mkt Value of Project**				**Est Tax Revenue of Project Nh**	**Est Tax Revenue of Project H&NH**
Town	NH	$ 10.68		Residential		$ 141,250,000		$ 1,586,235	$ 790,442
	H	$ 5.05							
Fire	NH	$ 1.13		NonResidential		$ 7,000,000		$ 167,857	$ 97,476
	H	$ 0.63							
Ambulance	NH	$ 0.35						$ 51,428	$ 29,867
	H	$ 0.19							
Lighting	NH	$ 0.19						$ 28,059	$ 16,294
	H	$ 0.11							
Solid Waste	NH	$ 0.25		Marina		$ 242,500		$ 37,461	$ 1,827
	H	$ -							
County	NH	$ 2.84		**Total Est Value**		**$ 148,492,500**		$ 421,892	$ 421,892
	H	$ 2.84							
School	NH	$ 37.60						$ 5,584,045	$ 4,097,032
	H	$ 27.08							
Total* NH		**$ 53.05**						**$ 7,876,978**	**$ 5,454,830**
Total* H		**$ 35.90**							
*Does not include solid waste transfer unit tax									