NEW YORK STATE
ENVIRONMENTAL QUALITY REVIEW ACT (SEQRA)

FINAL GENERIC ENVIRONMENTAL IMPACT STATEMENT

White Pine Commerce Park

(formerly known as Clay Business Park)
5171 Route 31
Town of Clay, New York 13041

LEAD AGENCY:
Onondaga County Industrial Development Agency

http://syracusecentral.com/Economic-Development-Services-Industrial-Development-Agency.aspx

Mary Beth Primo, Executive Director
333 W. Washington Street, Suite 130
Syracuse, New York 13202
315-435-3770 (Fax) 315-435-3669

Prepared by:
CHA Consulting, Inc.
441 South Salina Street
Syracuse, NY 13202-4712
315-471-3920

September 2013

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White Pine Commerce Park
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White Pine Commerce Park
Town of Clay, NY
Final Generic Environmental Impact Statement

Executive Summary

The Onondaga County Industrial Development Agency (OCIDA) proposes to develop a modern industrial park on its existing 339.26 acre White Pine Commerce Park property. The White Pine Commerce Park (formerly known as the Clay Business Park) is located northeast of the intersection of NYS Route 31 and Caughdenoy Road in the Town of Clay, Onondaga County, New York. The Park is approximately 7 miles north of the City of Syracuse.

On March 6, 2012 the OCIDA established itself as the Lead Agency for conducting the environmental review of the proposed White Pine Commerce Park project consistent with the State Environmental Quality Review Act (SEQRA). As Lead Agency, the OCIDA assumed the responsibility to prepare a Draft Generic Environmental Impact Statement (DGEIS) and conducted a coordinated environmental review of the project among all Involved Agencies. The DGEIS was deemed complete by the OCIDA and determined ready for agency and public review and comment on September 20, 2012. A Public Hearing was held on October 16, 2012. The public comment period ended on October 29, 2012.

Subsequent to the DGEIS and as required by SEQRA, a Final GEIS has been prepared by the OCIDA. This Final GEIS responds to all substantive comments received on the DGEIS. Also included in this Final GEIS are new analyses of predicted traffic impacts and mitigation measures; a wetlands delineation report for the proposed sewer route; information regarding potential air contaminant releases; an assessment of Indiana bat habitat; and a Phase 1B archeological report. Consistent with SEQRA requirements, this Final GEIS will be followed by a SEQRA Findings Statement from the OCIDA.

This Final GEIS incorporates by reference the entire Draft GEIS and its Appendices. The Draft and Final GEIS address the potential impacts on environmental resources and mitigation requirements for the envisioned White Pine Commerce Park. These environmental resources include: land use and zoning; community character; transportation; utilities and community services; topography, geology and soils; water resources including floodplains and wetlands; air resources; ecological resources including endangered and threatened species; cultural and archeological resources; visual character and noise.

The site is zoned by the Town of Clay for industrial uses. Surrounding land use includes residential areas, small businesses and some industrial uses however much of the immediate project area is undeveloped and remains a mix of open fields, woodland, farmland and former farmland.

Industrial facilities at the Park are proposed to be located in three primary development areas in the central, southern and eastern portions of the property. The Preferred Development Scenario for the Park is illustrated in Chapter 1 of the Final GEIS. The scenario is a generalized graphic to illustrate areas that could be developed with minimal impact on environmental features. Development could potentially affect in some way up to approximately 182 acres or slightly more than one-half of the available acreage of the site according to this scenario.

The three developable areas (identified as A, B and C by the scenario) were determined through a review of site characteristics. These locations are most suitable for industrial development due to favorable road and rail access, level topography and other site development considerations including the absence of wetlands, floodplains and other environmentally sensitive features.

The OCIDA considered various configurations and alternative layouts for the site which were described in the DGEIS. It is the OCIDA's objective to maximize development potential of the site while avoiding or minimizing to the greatest extent practicable any adverse impacts on the environment. As envisioned, the White Pine Commerce Park could accommodate up to approximately 2 million square feet of industrial development without significant adverse effects on environmental resources.

Possible industrial uses at the White Pine Commerce Park could include, but may not be limited to, advanced manufacturing, materials processing, product assembly, research and development, and data management. The Park will be serviced by existing transportation systems and utilities. The Park is located along NYS Route 31 with access to interstate highway systems within two to four miles to the east and west. The site is adjacent to an active CSX rail line and less than five miles from Syracuse's Hancock International Airport. Important utilities exist near the site with sufficient capacities to serve the

Park. These utilities include electric, natural gas, water, telephone, fiber optic, cable and broadband communications.

The project will require additional infrastructure to support future development. The DGEIS addressed two important improvements that are necessary to prepare the site as "shovel ready". These include: 1.) road and intersection improvements adjacent to the site along NYS Route 31 at Caughdenoy Road; and 2.) a new sanitary sewer line. The environmental impact and mitigation required for constructing this infrastructure has been considered together with the environmental impacts of Park development.

Lane configuration and widening improvements along Caughdenoy Road and at the NYS Route 31/Caughdenoy Road intersection are necessary. This has been determined based on an analysis of existing and potential future traffic conditions along NYS Route 31 and in consultation with the New York State Department of Transportation (NYS DOT) and the Onondaga County DOT. Roadwork will include necessary drainage improvements and may necessitate the relocation of some utilities. Construction of these improvements is not anticipated to create significant adverse impacts. Standard engineering and best management construction practices will be implemented during any roadwork.

Sanitary sewer service is not immediately available in the immediate project area, but its feasibility has been assessed as part of this SEQRA process. A new sewer line will be necessary to service the Park with wastewater treatment at Onondaga County's Oak Orchard Wastewater Treatment Plant (WWTP). The WWTP is located about 3 miles northwest of the project along the Oneida River in Clay. A proposed sewer line route from the Park to the WWTP has been identified from among several alternatives. The proposed route follows an existing 99-foot wide Onondaga County Metropolitan Water Board (MWB) right-of-way located approximately 1,000 feet southwest of the Park running roughly parallel to NYS Route 31 and then northward along the east side of Mud Creek to the WWTP.

The proposed sewer route crosses up to 16 small to medium size federal wetlands and surface water features which have been delineated and mapped. The deposition of fill or other material, intrusion and adverse impacts to these wetlands and surface water features will be avoided by using subsurface horizontal drilling methods to install the sewer line underneath the wetlands. Horizontal drilling will also be used to install the pipeline under existing roads and railroad tracks to avoid impacts to those transportation systems and their operations.

The potential for adverse impacts on historic and archeological resources at the Park and along the proposed sewer route was assessed. Field studies completed in 2013 in consultation with the New York State Office of Parks, Recreation and Historic Preservation indicate that no significant historic or archeological resources will be impacted by the project and no mitigation is required.

The potential for impacts upon Indiana bat roosting habitat has also been assessed. The Indiana bat is an endangered State and federal species. There is potential for some roosting habitat in the project area. As such, certain mitigation measures will be followed to avoid or minimize potential impacts. The Preferred Development Scenario for the Park avoids environmentally sensitive areas including wooded and nonwooded wetlands. Also no development is proposed north of existing transmission lines on site that contain substantial wetlands and woodlands. Mitigation includes limiting the removal of potential habitat trees prior to construction to non-roosting periods of the year. Consistent with U.S. Fish & Wildlife Service guidelines this period is between October 31st and March 31st. Potential habitat areas will be fenced using orange fencing during construction to avoid disturbance in these areas. These and other mitigation measures for the project are discussed in the Final GEIS and its technical appendices. Significant impacts to potential habitats are not anticipated.

Subsequent to this Final GEIS the OCIDA will prepare a Findings Statement consistent with SEQRA requirements. The Findings Statement will include information summarizing potential project impacts and mitigation measures to avoid or reduce adverse impacts. The Findings Statement will complete the SEQRA process at which time the OCIDA will seek shovel-ready status for the project from New York State Empire State Development.

1.0 Introduction and Project Description

1.1 SEQRA Status

The Onondaga County Industrial Development Agency (OCIDA) established itself as the Lead Agency for conducting the State Environmental Quality Review Act (SEQRA) environmental review of the proposed White Pine Commerce Park project (formerly known as the Clay Business Park) on March 6, 2012. Under SEQRA the proposed project is considered a Type I action requiring preparation of an Environmental Impact Statement (EIS).

As Lead Agency, the OCIDA assumed the responsibility to prepare a Draft Generic EIS (DGEIS) and conducted a coordinated environmental review of the project among all Involved Agencies. A listing of involved and interested agencies and organizations is provided later in this Chapter.

A scoping document for preparing the DGEIS was prepared and made available for agency and public review in April 2012. Scoping comments were received until May 10, 2012. A scoping meeting was held at the Clay Town Hall on May 3, 2012 to solicit agency and public input.

The Draft GEIS was deemed complete by the OCIDA and determined ready for agency and public review and comment on September 20, 2012. Pertinent SEQRA documentation is provided in Appendix A.

A Public Hearing was held at the Clay Town Hall on October 16, 2012. The transcript of the Public Hearing is provided in Appendix B. The public comment period on the DGEIS ended on October 29, 2012.

Subsequent to the DGEIS and as required by SEQRA, this Final GEIS has been prepared by the OCIDA. Consistent with SEQRA requirements this Final GEIS will be followed by a SEQRA Findings Statement from the OCIDA. This Final GEIS responds to all substantive comments received on the DGEIS.

This Final GEIS incorporates the entire Draft GEIS and its Appendices by reference. Any recent changes in either the proposed action or new information on the project as a result of comments received are noted as responses to comments in Chapter 2.

The Draft and Final GEIS address the potential impacts of the envisioned White Pine Commerce Park on environmental resources first identified in the scoping document. These resources include: land use and zoning; community character; transportation; utilities and community services; topography, geology and soils; water resources including floodplains and wetlands; air resources; ecological resources including endangered and threatened species; cultural and archeological resources; visual character and noise.

1.2 Project Overview

As described in detail in Chapter 1 of the DGEIS, the OCIDA proposes to develop a modern industrial park on its existing 339.26 acre White Pine Commerce Park property. The White Pine Commerce Park

(Park) is located northeast of the intersection of NYS Route 31 and Caughdenoy Road in the Town of Clay, Onondaga County, New York. The Park is approximately 7 miles north of the City of Syracuse.

The Park is envisioned to accommodate a mix of industrial uses that may include office, research, manufacturing, assembly, warehousing and distribution facilities, data centers and other uses in a campus environment. The Park presently consists of seven contiguous parcels covering a total area of approximately 339.26 acres of land owned and under the control of the OCIDA. It is possible that consolidation of the separate parcels and/or re-subdivision may be necessary in the future to accommodate the needs of one or more industrial tenants. Alternatives for developing the Park are discussed in Chapter 2 of the DGEIS.

The OCIDA owns the following tax parcels with the approximate acreage of each comprising the White Pine Commerce Park:

1. 048-01-01.0 99.2 acres
2. 046-02-01.0 25.6 acres
3. 046-02-02.1 21.5 acres
4. 046-02-03.1 49.4 acres
5. 046-02-04.0 18.1 acres
6. 046-02-05.2 37.3 acres
7. 046-01-02.2 88.2 acres

Among its many attributes are transportation access via highway and rail and the presence of critical utilities that are necessary to support industrial development. The Park is zoned for industrial use and has been for several decades. The Park has proximity to ample electric power at the National Grid Clay substation located just west of Caughdenoy Road. The Park also has access to an active CSX rail line that crosses Caughdenoy Road adjacent to the site. The rail line provides connections to the Midwest U.S. and southern Canada. The Park can be readily connected to nearby utilities including public water, electric, fiber optic and broadband, telephone, and natural gas services.

For SEQRA purposes, the term "project site" used in this GEIS is defined as any location where project facilities and infrastructure will or might be constructed as anticipated at this time. The project site includes the OCIDA's 339 acre Park property and any adjoining routes, rights-of-way and areas needed to support the project including existing or proposed infrastructure and/or improvements. This includes the proposed route for a sewer force main to serve the site. "Off-site" is defined as any portion of the study areas being assessed for potential impacts that are not on or encompassed by the project site.

The OCIDA intends to market the site for various types of uses likely including advanced manufacturing, material processing, product assembly, warehouse and distribution, research and development, and data management to facilitate the creation of high-paying employment opportunities in Onondaga County. Onondaga County and the Syracuse metropolitan region, as elsewhere in Upstate New York, have experienced a significant exodus of high paying manufacturing sector jobs in recent decades. The Commerce Park is an important publicly-owned local asset that can help reverse this trend by creating new industrial-based employment.

The OCIDA is seeking “shovel ready” status from New York State to facilitate marketing the Park and site development. Shovel ready status, as defined by New York State’s Empire State Development (NYSESD), for example, demonstrates to industrial prospects that governmental approvals needed for construction and infrastructure development either have been or can be readily secured within certain thresholds and permit criteria. This assurance is critical to eliminate uncertainty on the part of potential Park prospects about whether agency approvals and permits can be readily secured especially in time-sensitive circumstances. This SEQRA environmental review process is a requisite before shovel ready status will be assigned to the Park by NYSESD.

The Park’s natural features and site characteristics are described in detail in Chapter 3 of the DGEIS. The Park is highly suitable for large-scale industrial purposes primarily due to relatively flat to gently sloping terrain. The Park consists of large undeveloped areas of former farmland, vacant fields, shrubland and woodlands, all of which are in various stages of natural succession.

The northern portion of the Park is interspersed with several areas of wetlands and small drainages that drain northward under existing New York Power Authority (NYPA) and National Grid electric transmission lines towards Young’s Creek, located north of the OCIDA property. These transmission line rights-of-way cross the northern one-third of the OCIDA property in an east-west direction perpendicular to Caughdenoy Road. The transmission lines originate at the National Grid Clay electrical substation just west of the site.

An existing CSX rail line crosses the northwestern corner of the Park generally in a northeast/southwest direction. There is an at-grade railroad crossing along Caughdenoy Road adjacent to the Park. The line is part of the St. Lawrence Subdivision, a former New York Central secondary rail line. This is a single track rail line that runs from the Chicago Main Line near Destiny USA along the shoreline of Onondaga Lake in Syracuse for a distance of approximately 160 miles to a junction at Massena, NY where the line joins the Canadian National Railway to Montreal.

In addition to electrical service, highway and rail access, the White Pine Commerce Park can be serviced by other important utilities that exist near the site. These include natural gas, water, telephone, fiber optic, cable and broadband communications.

Sanitary sewer is not immediately available in the area, but its feasibility and potential impacts have been assessed as part of this SEQRA process. Information regarding sewer construction is provided in Chapter 4 and Appendix F of the DGEIS. A new sewer line will be necessary to service the Park with wastewater treatment at the Oak Orchard Wastewater Treatment Plant (WWTP). The WWTP is located about 3 miles northwest of the project along the Oneida River in Clay.

Industrial facilities at the Park are proposed to be located in three primary development areas in the central, southern and eastern portions of the property potentially affecting in some way up to approximately 182 acres or slightly more than one-half of the available acreage. These three areas have been identified through an environmental review of site characteristics as the most suitable locations for industrial development due to favorable adjacent road and rail access, level topography and other site development considerations including the absence of wetlands, floodplains and other environmentally sensitive features.

The project will require additional infrastructure to support future development. The DGEIS focused on two key topics that need to be addressed to better prepare the site as "shovel ready". These include: 1.) road and intersection improvements adjacent to the site; and 2.) a new sanitary sewer line. These and other site development considerations are discussed in Chapter 4 of the DGEIS. An updated traffic analysis study is provided as part of this Final GEIS in Appendix D.

Improvements along Caughdenoy Road and at the NYS Route 31/Caughdenoy Road intersection are necessary. This has been determined based on an analysis of existing and potential traffic conditions along NYS Route 31 and in consultation with the New York State Department of Transportation (NYS DOT) and the Onondaga County DOT. Improvements will include widening of the intersection along NYS Route 31 and Caughdenoy Road adjacent to the Park, turning lanes on all four approaches to the intersection and traffic signal modifications.

A sanitary sewer line to the Oak Orchard WWTP is also needed to provide sewer service to future Park tenants. A proposed sewer line route has been identified from among several available alternatives considered. The proposed route follows an existing 99-foot wide Onondaga County Metropolitan Water Board (MWB) right-of-way approximately 1,000 feet southwest of the Park roughly parallel to NYS Route 31. Sewer infrastructure requirements are being determined in consultation with Onondaga County Department of Water Environment Protection (DWEP) and other stakeholder agencies.

Wetland impacts due to development of anticipated roadway improvements adjacent to the site and along the proposed sewer line route are addressed in Chapter 4 of the DGEIS. These impacts are expected to be avoided or minimized to the greatest extent practicable utilizing directional drilling under the wetlands for sewer and utility installation. It is anticipated that any disturbance that cannot be avoided will be less than one-half acre and eligible for authorization under a Nationwide Permit. This will be determined in consultation with the New York State Department of Environmental Conservation (NYSDEC) and the U.S. Army Corps of Engineers (ACOE).

The OCIDA proposes to facilitate development of the Park for various types of uses possibly including advanced manufacturing, material processing, product assembly, warehousing and distribution, research and development, and data management. Up to 2.0 million square feet of development on the site may be possible without significant effects to environmentally sensitive resources. This may translate into one or two large tenants or multiple smaller tenants.

At 2.0 million square feet of building space up to 20 tenants each at 100,000 square feet may be accommodated. At one employee per thousand square feet such development could generate up to 2,000 employees. However, with advances in manufacturing and other industrial processes and technologies the rate of employee generation could be substantially different.

The OCIDA envisions utilization of sophisticated environmental quality management technologies at the Park to avoid or limit potentially significant adverse effects on the environment and surrounding community. Future industrial tenants will be required to obtain specific approvals and permits from local, State and federal agencies for environmental quality technologies that will be utilized at the Park. These permits and approvals will require state-of-the-art Best Management Practices (BMPs) in air quality, stormwater management, energy use and conservation, building design, noise attenuation, erosion and sediment controls and site construction, among others. For example, future tenants will be required to consider green infrastructure practices for managing stormwater consistent with NYS and local requirements.

A Preferred Development Scenario has been prepared by the OCIDA as graphically illustrated by the Figure provided at the end of this Chapter. The full build-out scenario that could reasonably be expected to occur given existing site conditions includes the following as originally described in the DGEIS:

- A combined total of approximately 1.5 million square feet (SF) of manufacturing/assembly space
- Approximately 210,000 SF of laboratory, research and development (R&D) space
- Approximately 235,000 SF of logistics, warehousing, and/or shipping & receiving space
- Approximately 50,000 SF of office and administration space
- Approximately 175,000 SF of outdoor utility space, maintenance areas and service/storage yards
- Approximately 34,000 SF of on-site energy generation or electrical substation space
- Approximately 12,500 SF for wastewater treatment systems or pump stations
- Approximately 56 acres of paved area for parking, loading, internal road circulation and/or shipping/receiving areas
- One million gallon water storage tank for industrial processing and fire suppression
- Approximately 4500 linear feet of road and drainage improvements along Caughdenoy Road from NYS Route 31northward to Mud Mill Road
- Intersection signal and road improvements at NYS Route 31/Caughdenoy Road
- Grade crossing improvements to the CSX railroad crossing on Caughdenoy Road
- Approximately 4.3 miles of new sanitary sewer to the Oak Orchard WWTP
- Areas set aside for wetland conservation, restoration, creation and/or enhancement
- Additional areas for:
  - Stormwater management
  - Truck scales and security guard stations
  - Fuel storage
  - Approximately 3,000 feet of industrial rail spur(s)
  - Employee amenities, trails and open space
  - Wetland and habitat preservation
  - Landscaping, security fencing, signage, earthen berms and vegetated buffers

If development of the White Pine Commerce Park is proposed in the future in ways that either conflict with the conclusions reached in this GEIS or exceeds the identified facts and/or thresholds, the SEQRA Lead Agency will need to determine if the SEQRA process must be supplemented to consider the potential for adverse impacts associated with those proposed changes.

1.3 Final GEIS Organization

This Final GEIS incorporates by reference the entire Draft GEIS (Volume I) and its Technical Appendices (Volume II). Project information updated since the Draft GEIS is noted in this Final GEIS where applicable. Changes in the proposed project or in proposed mitigation being considered are also noted where appropriate in response to comments received on the DGEIS or subsequent coordination with involved and interested agencies.

Chapter 2 of this Final GEIS summarizes comments received on the DGEIS and responds to all substantive comments. SEQRA documentation is provided in Appendix A of this Final GEIS. Appendix B includes a transcript of the Public Hearing held on October 16, 2012. Appendix C includes all correspondence and comments received during the public comment period. Technical studies prepared in response to comments are provided in appendices D through H. These studies include: Appendix D - Updated Traffic Analysis Study; Appendix E – Sewer Line Wetlands Delineation Report; Appendix F – Additional Air Quality Information; Appendix G – Indiana Bat Habitat Assessment; and Appendix H – Archeology Report.

As noted in the Draft GEIS the potential scope and scale of the project will require specific approvals and permits during various stages of planning, design and site development. Many permits and approvals to be issued by involved agencies, such as highway work permits from State or County DOTs, will be sought after actual site development plans have been prepared or advanced to the point that specific industrial tenant requirements and project components become known. Project reviews, approvals and permits may be sought from various agencies including, but not limited to the following:

Agencies likely to be involved in future project approvals, permitting and further coordinated reviews include:

- Town of Clay
- Onondaga County Department of Transportation (OCDOT)
- Onondaga County Department of Health (OCDOH)
- Onondaga County Department of Water Environment Protection (OCDWEP)
- Onondaga County Metropolitan Water Board
- Syracuse Onondaga County Planning Agency (SOCPA)
- Syracuse Metropolitan Transportation Council (SMTC)
- New York State Department of Transportation (NYSDOT)
- New York State Department of Environmental Conservation (NYSDEC)
- New York State Office of Parks, Recreation and Historic Preservation (NYSOPRHP)
- U.S. Army Corps of Engineers (USACOE)
- U.S. Fish & Wildlife Service (USF&WS)

The following approvals and permits may be required as project development is advanced:

- NYS DEC Freshwater Wetlands
- NYS DEC 401 Water Quality Certification

- U.S. ACOE Section 404 (Waters of the United States)
- Discharge to Surface Water (NYSPDES) 6NYCRR Part 750
- General Permit for Stormwater Discharge from Construction Activity SPDES GP-0-10-001
- Multi-Sector General Permit for Stormwater Discharge Associated with Industrial Activity SPDES GP-0-06-002
- NYS DOT Highway Work Permit (NYS Route 31)
- Onondaga County Planning Referral GML 239m
- County Highway Department Work Permit
- County Highway Department Curb Cut Approval
- Town of Clay Subdivision Adjustment (Section 230-28F)
- Town of Clay Site Plan Review & Approval (Section 230-26)
- Town of Clay Industrial Performance Standard Variance (Section 230-17)
- Town of Clay Accessory Special Permit
- Town of Clay Building Permit
- Town of Clay Certificate of Occupancy

Depending on specific uses, registration with the State through the NYSDEC may be required for chemical bulk storage and the use of petroleum products and hazardous materials on site. Similarly, air quality permits from the NYSDEC may be required depending on actual uses locating at the Park.

Additional interested agencies and stakeholder organizations have been participants in the review process and were provided copies of the DGEIS. These include:

- New York Power Authority
- National Grid
- CSX Rail
- New York Empire State Development
- Town of Cicero

1.4 Future SEQRA Actions

As Lead Agency the OCIDA assumed the responsibility to prepare this Final GEIS and conduct coordinated environmental reviews of the project among all Involved and Interested Agencies as identified above. Subsequent to this Final GEIS the OCIDA will prepare a SEQRA Findings Statement which will conclude the SEQRA process.

Future actions that fall within the range of parameters and impacts evaluated in the Draft and Final GEIS are not expected to require further SEQRA review. By identifying baseline environmental conditions and certain impact thresholds, the GEIS process may facilitate development of the project by allowing for quicker approval of future actions associated with development of the Park that are consistent with the GEIS and SEQRA Findings Statement. If subsequent proposed actions are not addressed or not adequately addressed in the GEIS and the subsequent actions will not result in any significant environmental impacts, then SEQRA requires only that a Negative Declaration be prepared. In the event that subsequent proposed actions are adequately addressed in the GEIS, but not adequately addressed in the Findings Statement, an amended Findings Statement will be prepared.

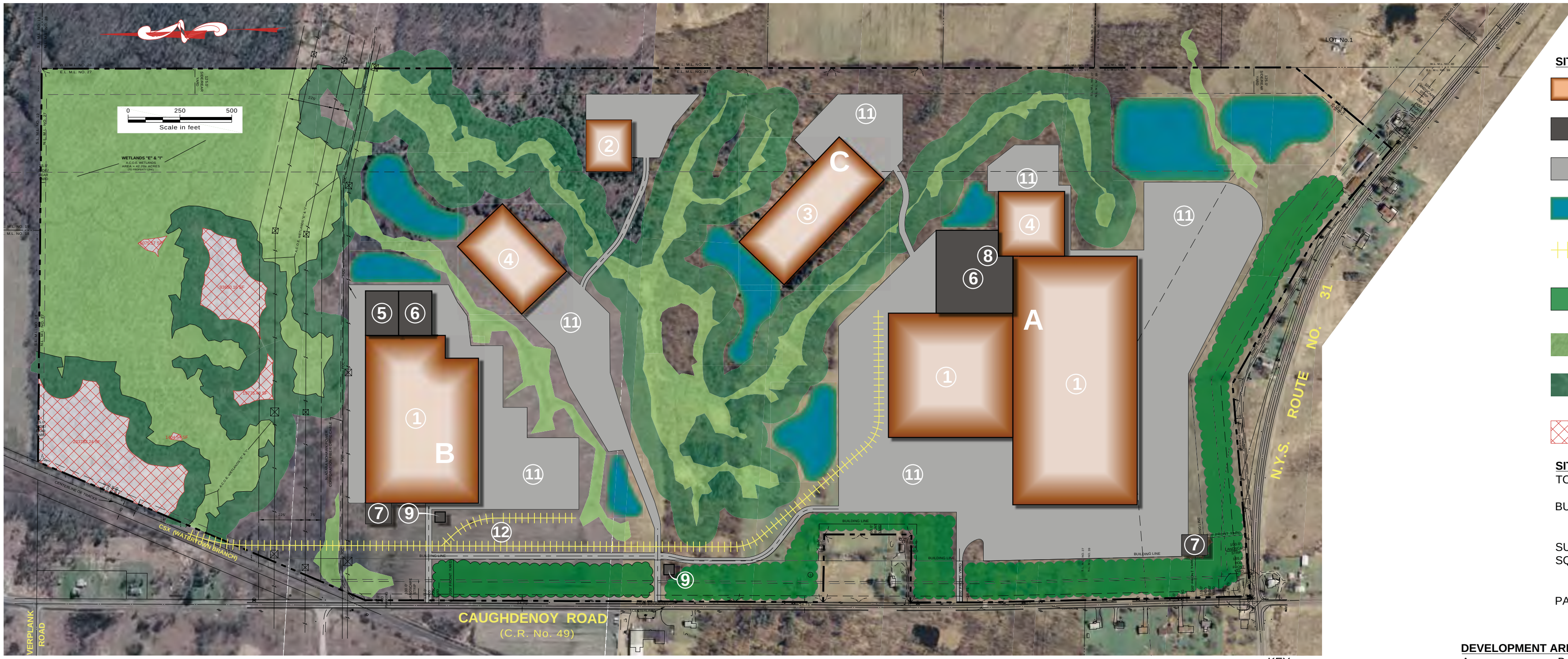
However, if any components of the proposed project to be developed do not fall within the set of parameters or conditions, and potential impacts are significantly different in nature or severity from those anticipated by this GEIS, a supplement to the Final Generic EIS (a Supplemental EIS) will be prepared to further evaluate and identify mitigation of significant adverse environmental impacts associated with specific development proposals that are beyond the scope of this GEIS. This may require additional technical analyses and agency coordination focused only on those issues.

SEQRA requires a supplement to the Final Generic EIS (a Supplemental EIS) if:

> *"…the subsequent proposed action was not addressed or was not adequately addressed in the generic EIS and the subsequent action may have one or more significant adverse environmental impacts."*

Parties proposing future development at the White Pine Commerce Park must determine whether or not the impacts associated with the proposal have been adequately addressed by the GEIS. If the need for supplemental action is determined under SEQRA, the Lead Agency will be responsible for carrying out the requirements of 6NYCRR Part 617.10 requirements. This will require the Lead Agency to interpret the Statement of Findings prepared under this GEIS for the project site, as it specifically relates to the development project(s) being proposed. As with all Type I actions, and for coordinated review of Unlisted Actions involving more than one agency under SEQRA, a Lead Agency must be established prior to a Determination of Significance.

The SEQRA process is discussed on the NYSDEC's website (http://www.dec.ny.gov/permits/6189.html). Upon completion of this Final GEIS, Part 617.11 requires that each Involved Agency, including the Lead Agency, prepare a written SEQRA Findings Statement (SEQRA Findings) – before any action can be taken on the project including funding or permitting. The Findings will include information on commitments to mitigation measures and a final determination as to the project's impact on the environment.



SITE LEGEND

- BUILDINGS
- SUPPORT STRUCTURES & FACILITIES
- PARKING AREAS
- STORMWATER MANAGEMENT AREAS
- RAIL SPUR
- PROPOSED VEGETATED BUFFER/ LANDSCAPED BERMS
- EXISTING WETLANDS
- EXISTING WETLAND BUFFERS
- POTENTIAL WETLAND MITIGATION AREAS (8.1± ACRES)

SITE DATA

TOTAL AREA: 339.26± ACRES

BUILDING SQUARE FOOTAGE (1-4)
2,002,500± (46± ACRES, 13.5%±)

SUPPORT STRUCTURES & FACILITIES SQUARE FOOTAGE (5-9)
238,050± (5.5± ACRES, 1.6%±)

PARKING AREA SQUARE FOOTAGE
2,456,980± (56.4± ACRES, 16.6%±)

DEVELOPMENT AREAS IN SQUARE FEET

	KEY	A	B	C	TOTAL
BUILDINGS	① MANUFACTURING / ASSEMBLY	360,000 720,000	422,500		1,502,500
	② OFFICE / ADMINISTRATION			55,000	55,000
	③ LAB / R&D			210,000	210,000
	④ WAREHOUSE / S&R	100,000	135,000		235,000
SUPPORT STRUCTURES & FACILITIES	⑤ ELECTRICAL / SUBSTATION		34,400		34,400
	⑥ UTILITY / SERVICE YARDS	139,250	34,400		173,650
	⑦ WASTEWATER PLANT/ PRETREATMENT (PUMP STATION)		12,500		12,500
	⑧ WATER TANK (100' HT.)	1 MG			1 MG
	⑨ GUARD / SECURITY	2,500	2,500		5,000
	⑩ STORMWATER				
	⑪ PARKING (# OF SPACES 1-4)	2,160 @ 2/1000 50 @ 0.5/1000	845 @ 2/1000 68 @ 0.5/1000	110 @ 2/1000 420 @ 2/1000	3,653
	⑫ RAIL SPUR		2,150 LF 800 LF		2,950 LF

CONCEPTUAL SITE PLAN & PREFERRED DEVELOPMENT SCENARIO

WHITE PINE COMMERCE PARK

SCALE: 1"=250'

prepared for:

OCIDA

prepared by:

CHA
441 South Salina Street • Syracuse, NY 13202-4712
Main: (315) 471-3920 • www.chacompanies.com

Note: This conceptual site plan is intended to identify the most developable portions of the White Pine Commerce Park and possible scale of development. The scale and number of buildings, support structures and facilities, and parking areas are highly flexible to meet specific tenant needs.

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2.0 Comments and Responses on the Draft GEIS

2.1 Public Hearing Comments Summary

Comments were received from four individuals during the Public Hearing that was held at the Clay Town Hall on October 16, 2012. The complete transcript of the Public Hearing including verbal comments from attendees and responses to those comments are provided in Appendix B of this Final GEIS.

During the Public Hearing attendees were encouraged to provide comments and ask questions. Below is a summary of those comments and updated responses as appropriate. The full text of comments is provided in Appendix B.

Public Hearing comments and questions related to the following:

1. Comment requesting confirmation that all roadway access points to the Park will be from Caughdenoy Road not NYS Route 31.

   Response: As currently envisioned and as shown on the Preferred Development Scenario provide at the end of Chapter 1 all access to the Park will be from Caughdenoy Road.

2. Comments relating to whether individuals could tie into the proposed sewer force main.

   Response: As discussed at the hearing, the sewer force main is a pressurized system that will not allow for individual hook-ups into the pipeline. The sewer line is meant to convey high volumes of sanitary waste or processed water under force to the Oak Orchard Wastewater Treatment Plant.

3. Comment that support businesses will be needed to provide services to industries and employees at the Park.

   Response: As the Park develops it is likely that local businesses in the area will be providing services to the Park’s tenants and employees for various services such as business products and materials, restaurants, cleaning and maintenance, and lodging for visitors to the Park. These services may be provided by existing businesses or new businesses that may develop in the area consistent with local zoning districts and regulations.

4. Comments expressing concern about existing traffic and concern if truck traffic destined for the Park will come north on Caughdenoy Road from Route 481 through existing residential areas.

   Response: The updated traffic study has considered the effect of new traffic generated by the Park on existing traffic conditions and the type of mitigation that may be necessary to reduce impacts. The amount of truck traffic is not known until Park tenants are identified. Truck traffic is anticipated to be coming to and from the Park along NYS Route 31 both eastbound to Interstate 81 and westbound to Route 481 near Soule Road. If truck traffic on Caughdenoy Road south of NYS Route 31 were to become an issue, restrictions on truck use of that section of roadway could be implemented.

5. Comment about wetland impacts on site to access eastern portions of the Park.

   Response: The wetlands may be impacted in some minor way for access roads across existing wetlands in the eastern portion of the Park. It may be possible to avoid or limit the extent of these impacts by bridging across narrow points of the wetland areas and providing drainage flow under the road crossings to maintain wetland functions.

6. Comments about State, County and taxpayer financing of the project.

   Response: The Park will require funding for project-related improvements including road improvements at Caughdenoy Road and the sewer line to the Oak Orchard Wastewater Treatment Plant. New York State has awarded the project over $1.5 million in grants and the County Legislature has appropriated funds for some of the infrastructure design and engineering work. The OCIDA will be seeking additional funding for the project.

7. Comments about the timeline for completion of the sewer.

   Response: The timeline for completion of the sewer is not yet known. That will be a County decision. Design and engineering will need to be conducted to determine the extent of what is needed. Completion of the improvements will also be contingent on how and when all required financing is secured.

8. Comments on the extent of intersection improvements at NYS Route 31 and Caughdenoy Road.

   Response: Similar to the sewer improvements, design and engineering will need to be completed to identify the extent of road improvements that will be needed. This is yet to be decided by the jurisdictional agencies involved in the design process that include the NYS DOT and Onondaga County DOT.

2.2 Agency Comments Summary

Four State and federal agencies provided comment letters on the DGEIS. Comments were provided by:

- New York State Office of Parks, Recreation and Historic Preservation (SHPO)
- State of New York Department of Transportation Region 3, Syracuse, NY
- Department of the Army, Buffalo District, Corps of Engineers
- United States Department of the Interior, Fish and Wildlife Service, Cortland NY

These agency letters are provided in Appendix C of this Final GEIS. Agency comments have been summarized below by resource topic. Comments may not appear in their original context or sequence in which they were provided, but are provided verbatim where possible or otherwise noted.

Comments and responses have been organized by resource topic in the same order as discussed in the DGEIS.

2.3 Land Use and Zoning

No comments were received on this topic. No new information is being presented or necessary.

2.4 Community Character

No comments were received on this topic. No new information is being presented or necessary.

2.5 Transportation

Comments were received from the NYSDOT in a letter dated October 26, 2012 regarding the Traffic Analysis Report originally provided in the DGEIS (Appendix C of the Draft GEIS).

NYSDOT Comment 1:
"It was noted the study (the Traffic Analysis Report – Appendix C in the DGEIS) incorporated outdated traffic signal timing and phasing. Therefore, the existing and build condition analysis extrapolated from this data is not indicative of the site and the NY31 corridor, thus limiting the Region's ability to verify the conclusions and mitigation proposed in the document. The Region requests the analysis be performed with the current signal information recently transmitted and the document updated."

Response to NYSDOT Comment 1:
The revised Traffic Impact Study is provided in Appendix D of this Final GEIS and has been reviewed by the NYSDOT. The study was revised using updated traffic signal timing, some additional traffic count data and phasing information provided by the NYSDOT.

The NYSDOT response to the updated study is provided in Appendix C.

NYSDOT Comment 2:
"…the NY31 corridor has experienced growth that has rendered the highway in some locations at or near capacity. At this level, as witnessed in other development projects, the mitigation extent precludes the viability of the project. It may serve the Agency, while revising the traffic analysis, to focus on those industries that create limited trip generation thus reducing need for extensive mitigation."

Response to NYSDOT Comment 2:
The DGEIS acknowledges that traffic capacity issues are experienced along the NYS Route 31 corridor. The results of the revised traffic study identify mitigation measures that may be required along the NYS Route 31 corridor as a result of development of the White Pine Commerce Park and/or other development in the area that is beyond the control or responsibility of the OCIDA.

The OCIDA has proposed reconstruction of the NYS Route 31 intersection at Caughdenoy Road and some widening of Caughdenoy Road adjacent to the Park. The intersection would be widened to provide exclusive left turn lanes for traffic on all four approaches and an exclusive westbound turn lane from NYS Route 31 onto Caughdenoy Road. In addition, eastbound and northbound right turn lanes, from NYS Route 31 and Caughdenoy Road respectively, will be needed in the future although not due to the White Pine Commerce Park, but to other proposed development occurring along the NYS Route 31 corridor.

The revised traffic study accounts for various levels of development and uses at the Commerce Park that will generate different traffic volumes including some forms of development (for example, data centers) that may create fewer, but higher paying employment opportunities, than perhaps other industrial uses. Such uses may result in lower trip generation rates. In the event that future uses are projected to exceed the thresholds identified in the revised traffic study additional traffic analysis and further coordination with the NYSDOT regarding mitigation will be required.

2.6 Utilities and Community Services

Comments were received from the NYSDOT in a letter dated October 26, 2012 regarding the potential for induced growth due to the proposed sewer to service the White Pine Commerce Park.

NYSDOT Comment 3:
"The region is concerned with induced growth that could occur with the introduction of sewer infrastructure and basic commercial growth to serve the site. While discussed in section 7.2 of the document, inclusion of defined steps to manage induced growth should be documented and implemented prior to development."

Response to NYSDOT Comment 3:
Future growth in the area will be regulated by the Town of Clay under its zoning and other land use regulations, including subdivision and site plan approvals. Onondaga County, through the Syracuse Onondaga County Planning Agency (SOCPA) will also provide recommendations for approval or disapproval of projects, or approval with conditions, as part of its responsibility under Section 239 of the State's Municipal Laws. Although the introduction of new sewer infrastructure into the area may induce growth there are opportunities to manage development through these local regulations and project approval processes.

As described in the DGEIS the proposed sewer forcemain is a pressurized system that will require pump stations for anyone that taps into the system. As a forcemain, simple lateral connections by individual properties or small groups of properties are not possible without these pump stations. Therefore, the ability to utilize the sewer because it is a force main and not a gravity system will be limited.

A further limitation on use of the forcemain is the treatment capacity that exists at the Oak Orchard Wastewater Treatment Plant. Limited capacity, as currently exists, places limitations on the amount of development in the area that could utilize the system. As part of the Onondaga County Sanitary District, County approvals will be needed to tie into the forcemain. Similarly, the establishment of a sewer district by the Town of Clay for the White Pine Commerce Park will help manage growth because approvals will be required for extending the sewer district beyond the boundaries of the Park. The review and approval of requests to tie into the sewer required at the County and Town level will help manage development of the area. The County and Town will need to consider the available capacity for treatment that exists at the Oak Orchard WWTP at the time that such development requests are made.

2.7 Topography, Geology and Soils

No comments were received on this topic. No new information is being presented or necessary.

2.8 Water Resources

Comments were received from the U.S. Army Corps of Engineers relative to wetlands in a letter dated October 29, 2012 (see Appendix C). The letter noted that on July 28, 2006, USACE issued an approved jurisdictional determination (JD) for a 158 acre southern portion of the Clay Business Park (as it was called at the time). It identified eight regulated waters including wetland and streams totaling 3.38 acres. The JD expired on July 28, 2012. A previous JD was issued on September 26, 2000, which expired on September 26, 2005, for the portion of the parcel located to the south of the powerline corridor (~ 244 acre parcel).

USACE Comment 1:
"The DGEIS references a revised delineation report for the new 339 acre site boundary that was completed by Terrestrial Environmental Specialists, Inc. (TES) based on field data collected in 2009 & 2010. This delineation does not appear to have been submitted to USACE for review at this time as I was unable to locate any subsequent requests for JD within our database. On Page 28 of Chapter 3, TES indicates that wetlands B, F, G & H do not appear to be federally regulated waters. The determination of federal jurisdiction will need to be determined by USACE."

Response to USACE Comment 1:
The Wetlands Delineation Report for the 339 acre OCIDA site was provided in Volume II, Appendix D of the Draft GEIS dated September 2012. The Wetlands Delineation Report for the route of the proposed sewer is provided as Appendix E of this Final GEIS. A Jurisdictional Determination (JD) will be requested by the OCIDA from the USACE and NYSDEC and copies of the wetland delineation reports for both the Park site and proposed sewer route will be sent to the NYSDEC and USACE for agency review.

USACE Comment 2:
"The DGEIS includes a review for waters along the proposed 4.3 mile long sewerline route and the areas of potential road improvements along Caughdenoy Road. The DGEIS notes delineation will be

completed prior to design of the sewer if this route is chosen. The delineation should be provided to USACE for a jurisdictional determination."

Response to USACE Comment 2:
See response to USACE Comment 1. The Wetlands Delineation Report for the Sewer Line has been completed and is provided in Appendix E. The delineation identified 16 wetlands/water resources on or adjacent to the proposed sewer route within the existing Metropolitan Water Board right-of-way.

The wetlands within the right-of-way total approximately 3.36 acres. All but 3 wetland crossings involve less than 0.50 acre. Sections of two tributaries of Mud Creek, Shaver Creek and a tributary of Shaver Creek are also located within the right-of-way. These all flow into the Oneida River approximately 3,000 feet to the northwest. All wetlands have an apparent surface water connection to a tributary system of navigable waters (the Oneida River) and as such are considered to be Corps-jurisdictional areas and not isolated. The Wetlands Report in Appendix E describes the ecology of these wetlands and water resources in detail.

As discussed in Chapter 4 of the Draft EIS (see Chapter 4, Section 4.4.5, page 21 and Section 4.8.2, page 30) for discussion of wetland avoidance by using directional drilling methods during construction of the sewer line. It is anticipated that horizontal directional drilling will avoid wetland impacts and that further mitigation will not be necessary. During construction wetlands and surface waters along the proposed sewer route will need to flagged or identified by some other means (fencing, etc.) to restrict access to those resource areas from being encroached upon by construction equipment.

2.9 Air Resources

No comments were received on this topic. However, the OCIDA has compiled some additional information relative to air quality that may facilitate future development decisions at the Park. This information is provided in Appendix F.

Total air emissions were calculated for various potential industrial tenants at the Park based upon OCIDA's knowledge of industrial sectors showing interest in locating in Upstate New York. Emission estimates are based on industry profiles prepared by the U.S. EPA, NYSDEC and other industrial sources of information including emissions data from existing facilities. The estimated emissions are not anticipated to cause or contribute to violation of State or National air quality standards as discussed in the Draft GEIS Chapter 4, Section 4.7, pages 26-28.

2.10 Ecological Resources

Comments were received from the U.S. Army Corps of Engineers in a letter dated October 29, 2012 and from the U.S. Fish and Wildlife Service in a letter also dated October 29, 2012 relative to threatened and endangered species (see Appendix C).

USACE Comment 3:

"The DGEIS indicates that the project site is within the range of the Indiana bat but does not fully discuss potential impacts to this species (amount of proposed tree clearing activities, etc.) and any mitigation measures. It is suggested that the U.S. Fish and Wildlife Service is contacted to ensure potential impacts are addressed. If a USACE permit is needed for proposed work at the site, USACE will need to determine compliance with the Endangered Species Act prior to any permit decision."

Response to USACE Comment 3:

The U.S. Fish and Wildlife Service was asked to comment on the DGEIS and responded in a letter dated October 29, 2012 that is provided in Appendix C of this Final GEIS. Those comments and responses are summarized below.

USF&WS Comment 1:

"We reviewed Appendix E of the DGEIS entitled "Vegetation and Wildlife Resources at the Onondaga County Industrial Development Agency Site" and agree with the DGEIS finding that suitable roosting and/or foraging habitat may be present within portions of the proposed project area. Therefore, the next step is to consider whether development of the site may result in any effects to the species. The DGEIS (Section 4.8, page 33) states that "the project will not adversely impact rare, threatened or endangered plant or wildlife species. Therefore, no mitigation is required." However, we could find no substantial analysis of potential effects of development of the site on the Indiana bat."

Response to USF&WS Comment 1:

Further analysis of potential Indiana bat habitat conditions has since been undertaken by the OCIDA's consultants. That report is provided in Appendix G of this Final GEIS.

Terrestrial Environmental Specialists, Inc. (TES) performed an Indiana bat summer roost assessment on the White Pine Commerce Park property and along the proposed sewer route. A total of 33 sample plots were examined during mid-June 2013 by TES at both locations. The data compiled from these plots are provided in the report in Appendix G which also contains photographs of habitat conditions.

USF&WS Comment 2:

"The Service considers the potential for direct and indirect effects to federally-listed and proposed species and works with project sponsors to develop conservation measures to address these effects. For example, tree removal should occur between November 1 and March 31 to avoid direct effects to Indiana bats associated with tree clearing. Bright orange fencing/flagging should clearly demarcate trees to be protected compared with those to be cut prior to the initiation of any construction activities at the site. This will help ensure that contractors do not accidentally remove more trees than anticipated. Indirect effects may result from the loss and/or fragmentation of roosting or foraging habitat. In addition to Table 3.8-1 (current vegetation cover types on site) and Table 4.8-1 (pre- and post-development upland vegetation cover types), please provide a table that includes vegetative cover types post-development for each of the alternatives/conceptual site layouts. We are interested in impacts to forest as well as other vegetation types that may be used as foraging habitat for Indiana bats. Minimizing project footprints, minimizing fragmentation of forest blocks, and restoring and/or protecting on- and off-site habitat can help address these impacts. Additional information can be found in our New York Field Office Indiana Bat fact sheet (enclosed)." (See Appendix C).

Response to USF&WS Comment 2:
As stated in TES's report full build-out the OCIDA's Preferred Development Scenario for the White Pine Commerce Park's would result in clearance of approximately 22.5 acres (about 15.3 percent) of the total of approximately 147 acres of woodland within the boundaries of the OCIDA site. Areas north of the existing transmission lines on site would not be developed. This is considered a minor impact to forested lands on site and in the project's vicinity.

Clearance of trees along the proposed sewer route will also be minimized through the use of directional drilling in installing the force main. The total wooded area to be cleared is approximately 8.26 percent of the total sewer route that consists of approximately 46.96 acres. This is also considered a minor impact to forested lands on and in the vicinity of the sewer project.

In order to prevent any potential chance of a direct "take" of an Indiana bat at the site or along the sewer route, the OCIDA proposes to cut wooded areas only as necessary and between October 31st and March 31st consistent with U.S. F&WS guidelines. Other mitigation measures will be implemented during development of the Park and during installation of the force main along the proposed sewer route to avoid or minimize effects on potential habitats. Orange fencing will be used to mark the limits of clearing and to demarcate areas and trees to be avoided by construction activities. In addition there will be no use of chemicals (e.g. colorants, copper sulfate) in and around stormwater management ponds.

Disturbance to wetlands (including forested wetlands) will be avoided or minimized where avoidance is not practicable by directional drilling under wetlands, for example, during sewer installation. An environmental monitor or construction inspector(s) will be used during construction to observe that mitigation measures are properly implemented.

USF&WS Comment 3:
"In multiple locations throughout the DGEIS, there are statements regarding the lack of observation of any listed animal or plant species during field studies of the site. We discourage general statements to this effect as they can be misleading to the general public. For example, to the best of our knowledge, there were no surveys for bats (e.g., mist-netting or acoustic surveys) conducted onsite; therefore, we would not generally expect that any bats of any species would be observed at the site during routine visit. However, this does not mean that bats do not occur at the site."

Response to USF&WS Comment 3:
These comments are noted and potentially confusing language in the report provided in Appendix G has been considered and as well in future SEQRA documents, including the OCIDA's Findings Statement for this project.

USF&WS Comment 4:
"… Until the proposed project is complete, we recommend that you check our website every 90 days from the date of this letter to ensure that listed species presence/absence information for the proposed project is current.

The DGEIS also assessed the potential for impacts to the delisted bald eagle *(Haliaeetus leueocephalus)* and the OCIDA does not anticipate any from the project. As you are aware, bald eagles are protected under the Migratory Bird Treaty Act (MBTA) (40 Stat. 755; 16 U.S.C. 703-712), the Bald and Golden Eagle Protection Act (BGEPPA) (54 Stat.250, as amended; 16 U.S.C. 668 et seq.), and by the State. In the future, if eagles are found within the project area, the Service recommends that the project sponsor follow the Bald Eagle Management Guidelines found on our website."

Response to USF&WS Comment 4:
The OCIDA's SEQRA Findings Statement will include the Agency's recommended language that if in the future bald eagles are found within the project area, the OCIDA will follow the Bald Eagle Management Guidelines found on the USF&WS website.

2.11 Cultural and Archeological Resources

Comments were received from the NYS Office of Parks, Recreation and Historic Preservation in a letter dated October 16, 2012 relative to archeological resources and the proposed extent of Phase 1B testing on site (see Appendix C).

SHPO Comment 1:
"SHPO does not concur with the report's recommendation regarding the exclusion of much of the project's Area of Potential Effects (APE) from archeological testing based on the interpretation that due to relatively poor drainage much of the area has a low potential for the presence of Native American sites."

Response to SHPO Comment 1:
The OCIDA's archeological consultant has since consulted with the SHPO regarding the project's APE and need for Phase 1B testing on the site. In consultation, it was agreed that Phase 1B testing would be limited to some areas of the project site itself and include the route of the proposed sewer. The results of Phase 1B Cultural Resources Survey are provided in Appendix H.

The Phase 1B survey did not identify any significant historic or archeological resources either on the White Pine Commerce Park property or along the proposed sewer route. No pre-contact Native American materials or potentially significant historic period artifacts were recovered from any shovel tests with the project site which includes the proposed sewer route. Therefore, no impacts to cultural and archeological resources are anticipated and no mitigation is required.

SHPO Comment 2:
"Based on the above, SHPO recommends that the entire APE should be examined in accordance with published guidance. Please note that wetlands are not automatically exempted from the need for field testing. Minor topographic variation within areas broadly defined as wetlands frequently provide better drained locations, sometimes small, which were used as temporary bases for resource collection. Furthermore, climatic variation through the precontact period may have created, at times in the past, dry areas which are now wet."

Response to SHPO Comment 2:
A shovel testing protocol for Phase IB testing based on published NYSOPRHP guidance was proposed and agreed upon with the SHPO. The results of Phase 1B testing including the shovel testing protocol and methods are provided in Appendix H.

SHPO Comment 3:
"As a possible alternative to conducting a Phase IB survey of the entire APE at this time, consideration may be given to the establishment of a Programmatic Agreement (PA) which would permit survey of discrete portions of the APE as development progresses."

Response to SHPO Comment 3:
The OCIDA appreciates the opportunity for establishing a Programmatic Agreement (PA) with the SHPO in lieu of a survey of the entire APE at this time. However, it is the OCIDA's intention to have the project site certified shovel-ready by New York State to facilitate development to the greatest extent practicable. The OCIDA has concerns that a PA may limit OCIDA's marketing efforts to prospective tenants and adversely affect the timely development of the site.

SHPO Comment 4:
"SHPO strongly recommends that the Corps of Engineers be consulted as soon as possible regarding the need to undertake Native American consultation for this project."

Response to SHPO Comment 4:
No pre-contact Native American materials or potentially significant historic period artifacts were recovered from any shovel tests with the project site which includes the proposed sewer route.

SHPO Comment 5:
"Please remove Figure 5 from the report. Archeological site locations not directly within a project's APE should not be displayed in a public document."

Response to SHPO Comment 5:
The Phase IA report and future project-related documents have been revised and Figure 5 has been removed.

2.12 Visual Resources

No comments were received on this topic. No new information is being presented or necessary.

2.13 Noise Resources

No comments were received on this topic. No new information is being presented or necessary.

FINAL SCOPING DOCUMENT
DRAFT GENERIC ENVIRONMENTAL IMPACT STATEMENT FOR THE PROPOSED CLAY BUSINESS PARK
TOWN OF CLAY, NY

I. PROPOSED PROJECT

The Onondaga County Industrial Development Agency (OCIDA) proposes to develop a modern industrial park on its existing 339 acre (Clay Business Park) property located northeast of NYS Route 31 and Caughdenoy Road in the Town of Clay, Onondaga County, New York. The Clay Business Park is envisioned to accommodate a mix of industrial uses that may include office, research, manufacturing, assembly, warehousing and distribution facilities in a campus environment on approximately 175 acres of OCIDA property. The Clay Business Park is zoned for industrial purposes by the Town of Clay.

Industrial facilities at the Clay Business Park are proposed to be located in three primary development areas in the central, southern and eastern portions of the OCIDA property. These three areas are considered the most suitable from a development perspective due to favorable access, level topography and other considerations including a general absence of wetlands and environmentally sensitive features.

The Clay Business Park is highly suitable for industrial use due to proximity to ample electric power at the National Grid Clay substation west of Caughdenoy Road and CSX rail access. The Park can be readily connected to nearby utilities including water, electric, fiber optic, telephone, and natural gas.

The project will require additional infrastructure to support industrial development. Improvements along Caughdenoy Road and at the NYS Route 31/Caughdenoy Road intersection are necessary and will be determined in consultation with NYS DOT and County DOT. A sanitary sewer line to the Oak Orchard Wastewater Treatment Plant (WWTP) is also needed to provide service to future tenants. A preferred sewer line route has not yet been identified, but several available alternatives exist. Sewer infrastructure requirements will be determined in consultation with Onondaga County Department of Water Environment Protection and other stakeholder agencies. The project will also likely include some degree of wetland enhancement, restoration and/or creation. The extent of impacts and wetland mitigation will be determined in consultation with the New York State Department of Environmental Conservation (NYSDEC) and the U.S. Army Corps of Engineers (ACOE).

The "project site" is defined as any location where project facilities and infrastructure will or might be constructed. This includes the OCIDA's 339 acre Clay Business Park property and adjoining routes, rights-of-way and areas needed to support the project related infrastructure and improvements. "Off-site" is defined as any portion of the study area and areas of potential impacts not on or encompassed by the project site.

A proposed development scenario has been identified by the OCIDA that accommodates up to 2.5 million square feet (SF) of possible industrial space at full build-out of the Clay Business Park. Until a prospective tenant or tenants are known, it is assumed that the Park could be developed in several phases and by one or more industries.

The full build-out scenario includes a conceptual site layout of buildings, parking, internal roadways and ancillary industrial facilities. The proposed development scenario at full build-out could accommodate the following uses:

- A combined total of approximately 1.5 million square feet (SF) of manufacturing/assembly space
- Approximately 210,000 SF of laboratory, research and development (R&D) space
- Approximately 235,000 SF of logistics, warehousing, and/or shipping & receiving space
- Approximately 50,000 SF of office and administration space
- Approximately 250,000 SF of outdoor utility space, maintenance areas and service yards
- Approximately 80,000 SF of on-site energy generation or substation space
- Approximately 12,500 SF for wastewater treatment systems
- Approximately 50 acres of paved area for parking, internal circulation and/or shipping/receiving
- One 1.0 million gallon water storage tank for industrial processing and fire suppression
- Intersection and road improvements at NYS Route 31/Caughdenoy Road
- Approximately 4500 linear feet of road and drainage improvements along Caughdenoy Road from NYS Route 31to Mud Mill Road
- Grade crossing improvements to the CSX railroad crossing on Caughdenoy Road
- Approximately 3 to 4 miles of sanitary sewer to the Oak Orchard WWTP
- Areas set aside for wetland conservation, restoration, creation and/or enhancement

- Additional areas for:
  - Stormwater management
  - Truck scales and security guard stations
  - Fuel storage
  - Rail spur and sidings
  - Possible employee amenities, trails and open space
  - Wetland and habitat preservation northern portions of the site
  - Landscaping, security fencing, signage and natural screening and buffers

These uses and sizes are assumed for the full buildout scenario for purposes of evaluation in the DGEIS.

II. SCOPING DOCUMENT FOR THE DRAFT GENERIC EIS

This Scoping Document identifies potential issues and anticipated impacts proposed to be addressed in the Draft Generic Environmental Impact Statement (DGEIS) being prepared by the OCIDA for the Clay Business Park. One of the principal purposes of this scoping process is to have the Lead Agency (OCIDA), Involved Agencies and the public identify in at least in a preliminary way, those impacts thought to be significant and therefore, needing discussion in the DGEIS. Scoping can also identify topics that may be considered irrelevant or insignificant and not necessary to be in the DGEIS.

This scoping document has been prepared consistent with regulations implementing the New York State Environmental Quality Review Act (SEQRA). The purpose of making this Scoping Document available for agency and public review is to confirm and, if necessary, add to the list of topics that should be addressed within the contents of the DGEIS.

The DGEIS is intended to determine whether the proposed project will cause any significant adverse environmental impacts and identify possible mitigation measures that will be implemented to avoid, minimize or reduce those impacts on the environment. Under SEQRA, a DGEIS can be prepared in place of a more conventional site-specific EIS when a proposed action is at a conceptual stage of development and timing or project design is uncertain, thus making the identification or extent of certain specific impacts impractical. A “generic” EIS is less specific than a conventional EIS and can be based on conceptual information until more detailed information on tenants, uses and design become known. It is appropriate to conduct an environmental review of the project as a Generic EIS because the project’s development scenario offers a reasonable prediction of anticipated development while preserving flexibility to accommodate various industrial uses, buildings and facilities, scale of development and site design,

The DGEIS will follow the same SEQRA procedures as a conventional EIS. Unlike a conventional EIS, the DGEIS may place greater emphasis on cumulative, secondary, long-term and growth-inducing impacts of the project. The DGEIS will identify baseline environmental conditions that may be affected by the proposed project, for example, along the route of the new sewer line. The DGEIS will also establish to the extent practicable, impact thresholds beyond which additional environmental review will be pursued.

For SEQRA purposes, this scoping document and the DGEIS assume the maximum build-out potential for the Clay Business Park as the basis for determining impacts and mitigation requirements. Future actions that fall within the range of impact evaluated in the DGEIS are not expected to require further SEQRA review. By identifying baseline environmental conditions and impact thresholds, the GEIS process may facilitate development of the project by allowing for quicker approval of future actions associated with development of the Park that are consistent with the GEIS and SEQRA Findings. Future actions that exceed impact thresholds will be addressed through a Supplemental EIS that focuses only on those impacts not adequately addressed in the original GEIS.

III. SEQRA CLASSIFICATION OF THE PROPOSED ACTION

The proposed action is considered a Type I Action under SEQRA, primarily because the development of the Park and construction of infrastructure will cover a relatively large geographic area and exceed the ten acre threshold for Type I actions. Under SEQRA, a Type I action is considered to be one for which an EIS may be required due to the potential for significant environmental impact.

IV. LEAD AGENCY

The Onondaga County Industrial Development Agency established itself as the Lead Agency for environmental review on March 6, 2012. As Lead Agency, the OCIDA assumes responsibility under SEQRA to conduct a coordinated environmental review of the project among all involved agencies and prepare a Draft GEIS. Subsequent to the DGEIS a Final GEIS will be prepared followed by a SEQRA Findings Statement(s) from the OCIDA and Involved agencies.

V. SCOPING MEETING AND COMMENTS

The OCIDA encouraged participation in the scoping process for the DGEIS. This Scoping Document was available as a Draft for agency and public review and comment until May 10, 2012. This document was available for review on OCIDA's website (http://www.syracusecentral.com/Economic-Development-Services-Industrial-Development-Agency.aspx). Copies of the Draft Scoping Document could be obtained by written request to the OCIDA at 333 W. Washington Street, Suite 130, Syracuse, NY 13202.

A public meeting to provide an opportunity for the public and agencies to comment was held on May 3, 2012 at 6:00 pm at the Town Hall, Town of Clay, 4401 Route 31. Notice of this meeting was provided in a newspaper of general circulation and on OCIDA's website.

Written comments on this Draft document were accepted until May 10, 2012.

Based on the consideration of comments received, the Draft document was revised, as appropriate. Written comments were received from the NYSDEC and the Town of Clay. No public comments were received. Consistent with SEQRA the OCIDA prepared this Final Scoping Document which will guide the preparation of the DGEIS.

VI. COMPONENTS OF THE DRAFT GEIS

As used here, the term "project" means the full build-out of the existing 339 acre Clay Business Park according to the proposed development scenario described previously in Section I. The DGEIS will discuss the project in terms of a "project site" and a "study area(s)". The project site will be those locations where project facilities (buildings, roadways, utility lines) are to be located. The project site will include the location of the proposed sewer line and other project-related development. For SEQRA purposes the study area(s) encompasses the project site and any surrounding areas where environmental impacts will be studied.

The DGEIS will be formatted consistent with the requirements of SEQRA and the New York State Department of Environmental Conservation regulations implementing SEQRA. It will contain a Cover Sheet, Table of Contents and an Executive Summary. Technical information will be summarized in several chapters utilizing tables, graphs and maps as appropriate. Technical studies and collected field data will be provided as appendices. The DGEIS will include the following sections.

1.0 Introduction and Project Description

The primary purpose of the proposed project is to prepare the OCIDA property for large-scale industrial uses. The first section of the DGEIS will introduce the project and why developing the Clay Business Park is needed as a regional economic development initiative. A project overview of the Clay Business Park will trace back its history to approximately 20 years ago when it was first identified as a prime candidate for industrial use, primarily due to its relatively unique location with access to industrial utilities, energy and rail.

This section will provide a detailed project description and conceptual layout of the Park, citing various aspects of the project that require environmental review. Involved and interested agencies that are part of the SEQRA review process will be identified. Each agency's role and possible permitting and approval authority will be discussed. Section 1 will contain information outlined below supplemented with maps, plans and other graphics as appropriate.

1.1 Project Overview and History
1.2 Project Purpose and Need
1.3 Project Location and Study Area
1.4 Description of the Project Site
1.5 Description of the Proposed Action
1.6 Required Approvals and Permits
1.7 The SEQRA Process & Future SEQRA Actions

2.0 Alternatives Considered

This section of the DGEIS will discuss reasonable alternatives to the proposed action including the proposed and alternative development scenarios. The discussion of alternatives will include the possibility of taking no action and consideration of what the implications of that may be for the OCIDA, the community and the environment. Future conditions with and without the project will be discussed in the DGEIS, for example with regard to the anticipated increase in traffic and other forms of development expected to continue along the NYS Route 31 corridor in Clay and Cicero.
The discussion of alternatives will include routing options for the proposed sewer line to the Oak Orchard Wastewater Treatment Plant and alternatives for wastewater treatment. Each important alternative discussed will summarize both beneficial and adverse effects on the environment that may result from that alternative. These alternatives will compare impacts for phased to full

implementation of the proposed development scenario. Alternatives will be compared to the proposed development scenario and how each meets the overall project's purpose and need. This section will address reasonable development options that have been considered, but eliminated from further consideration and for what reasons. Section 2 will follow the general outline below in addressing these topics.

2.1 The No-Action Alternative
2.2 Alternatives Dismissed from Further Consideration
2.3 Alternative Sites
2.4 Alternative Uses and Technologies
2.5 Alternative Scale, Timing and Magnitude of Development
2.6 Alternative Site Design and Layout

3.0 Environmental Setting

Section 3, Environmental Setting, will include detailed discussions of existing, or baseline environmental conditions in the project area for the various topics being evaluated that are identified below. Existing conditions will be described in sufficient detail so that an accurate picture of current conditions can be compared to conditions anticipated to result in the future with or without the project. This section will rely on available information sources and previous studies conducted by OCIDA and others, supplemented as appropriate by new data collection. New traffic count data, for example, has been collected along the NYS Route 31 corridor at 20 intersections. New data on existing wetlands and ecological habitats are also being collected. Information will be supplemented with tables, graphs, photos and maps to illustrate existing conditions on site and in the study areas. Citations for existing sources of information will be provided and all references will be identified. Information will be discussed according to the Section 3 outline below.

3.1 Land Use and Zoning
3.2 Community Character and Demographics
3.3 Transportation
3.4 Utilities & Community Services
3.5 Topography, Geology & Soils
3.6 Water Resources
3.7 Air Resources
3.8 Ecological Resources

3.9 Cultural and Archeological Resources
3.10 Visual Environment
3.11 Noise Environment

The subsection on land use and zoning will describe current land use and development patterns in the Town of Clay and in nearby areas of the Town of Cicero as well as nearby southern portions of Oswego County. Parcel-based GIS maps depicting various land use categories within approximately 1 mile of the project site will be provided. Current Town of Clay zoning will be described. The Town's present zoning map will be provided. Bulk and land use regulations under relevant zoning districts will be described. This section will also summarize recent land use planning initiatives undertaken by the towns of Clay and Cicero as well by the Syracuse Metropolitan Transportation Council (SMTC). These initiatives include the NYS Route 31 Corridor Study and the Town of Clay Northern Land Use Study. These initiatives will be summarized in terms of overall land use goals and objectives for the project area and relevance to the OCIDA project.

Community character will describe in text and graphic format the existing rural/suburban character of the project site and its surroundings. This subsection will address the relatively undeveloped character of the area north of NYS Route 31. Demographic information obtained from the most current U.S. Census will be summarized. Socioeconomic data on existing populations in the project area will be provided as well as information on population trends and anticipated growth. Information will be summarized from various local and regional land use and socioeconomic studies.

The transportation section will include detailed discussions of existing traffic conditions along the NYS Route 31 corridor near the OCIDA site and at intersections in adjoining areas of both Clay and Cicero. Current traffic count data collected along the Route 31 corridor will be provided in an appendix to the DGEIS. These data will be used to assess current conditions in the project area and identify potential impacts anticipated from phased and full build-out of the project including changes in levels-of-service along the Route 31 corridor and at key intersections. Count data on up to 20 intersections east and west of the site will be evaluated in terms of existing and potential traffic congestion with and without the project. This section will also briefly describe the existing pedestrian environment as well as other modes of transportation available in the area. Route 31 is part of a designated bike route through the area. The CSX rail line will also be discussed.

Utilities that exist in the vicinity of the project site will be described and mapped. Utilities will be discussed in terms of their appropriateness for industrial uses and corresponding capacities to support large scale industrial uses at the Clay Business Park. Information will be collected from service providers regarding water supply infrastructure, electrical capacity, natural gas service, telecommunications and fiber optic infrastructure, and available sanitary/wastewater treatment and sewer service in the area. Community services, such as police and fire protection and other services such as solid waste management and highway maintenance will be discussed in this section.

The topography, geology and soils section will discuss the natural surface and subsurface features present on the project site. Much of this information will be obtained from documented sources including maps, reports and earlier studies completed for the study area. Geology and soils information will be obtained from the Onondaga County Soil Survey and geotechnical studies previously conducted in the project area. Existing topography of the Clay Business Park will be provided on a recent boundary and topographic survey map prepared by OCIDA. The survey map provides boundaries, spot elevations, contours and other pertinent site features, both natural and man-made, including adjacent utility locations. The survey map is a basis for preparing alternative development scenarios.

Water resources will be identified. Current locations and characteristics of streams, wetlands and significant drainages will be described and mapped based upon various information sources, including previous studies of the area and field reconnaissance. Water resources will be discussed in terms of existing uses and NYSDEC stream classifications. Wetlands have been delineated and updated maps will be provided in the DGEIS. Wetlands along the alternative routes being considered for the sewer line and in the vicinity of proposed road improvements along Caughdenoy Road at the Route 31 intersection are being investigated. The extent and quality of wetlands will be summarized. A wetlands delineation report will be provided as an appendix to the DGEIS.

Air resources will be addressed qualitatively based upon existing air quality data available from the NYSDEC and similar sources of information. Existing air quality in the project area will be compared to State and National air quality standards. Existing sources of air emissions in the study area, due primarily to vehicular traffic will be discussed.

Ecological resources in potentially affected areas will be described based upon field reconnaissance and review of information available from local, State and federal sources. Both vegetation and wildlife resources and terrestrial and aquatic habitats in the vicinity of the project will be identified.

Threatened and endangered floral, faunal and avian species will be identified for the study area based on review of existing reports and consultation with State and federal agencies. The NYSDEC Natural Heritage Program and the U.S. Fish and Wildlife Service website will be consulted. An ecological resources report will be provided as an appendix to the DGEIS.

Cultural and archeological resources will be discussed based on the review of existing reports and consultation by a certified archeologist with the New York Office of Parks, Recreation and Historic Preservation (NYSOPRHP). It is anticipated that no significant cultural resources will be identified on the site based on previous consultation with the State. Resources that may potentially exist along the proposed sewer line and near the Oak Orchard Wastewater Treatment Plant will be discussed.

The visual environment of the project site and surrounding study areas will be described in terms of sensitive receptors and existing visual characteristics. Existing visual resources known to be important to the community will be identified. Existing land uses that contribute to the character of the area will also be identified and discussed relative to their visual value. Photographs of strategic views to and from the site will be incorporated into the DGEIS to facilitate the description of existing visual quality and resources in the project area.

Ambient noise levels in the project area will be described qualitatively based on existing land uses in the area and their potential for contributing to the existing noise environment of the project area. The noise discussion will be based on NYSDEC technical guidance documents. Potentially sensitive noise receptors will be identified according to their existing locations, distances from the project site and reasons why receptor locations are considered sensitive.

4.0 Potential Environmental Impacts and Mitigation

Section 4 will identify potential project impacts on the environment. Information will be presented in similar order according to the same resource topics addressed in Section 3. Impacts will be discussed in terms of the likelihood of their occurrence, the geographic extent of their occurrence and anticipated significance. Impacts will be discussed in terms of short-term and long-term implications with the focus on identifying and discussing potentially significant adverse impacts that will require mitigation. Impacts that are considered minor and not significant will be briefly discussed.

The type and degree of project related impacts will be determined through specific research and the analysis of data and other information provided in section 3. The identification of impacts will also be based on discussions with involved and interested agencies and other knowledgeable project stakeholders. Impacts will be identified from determining project consistency with applicable local, regional, State and federal regulations and what may be considered acceptable impact limits and thresholds. Section 4 will address reasonable mitigation measures to reduce or minimize potentially adverse impacts if avoidance is not practicable.

The discussion of potentially adverse impacts and mitigation will follow the outline below.

4.1 Land Use
4.2 Community Character
4.3 Transportation
4.4 Utilities & Community Services
4.5 Topography, Geology & Soils
4.6 Water Resources
4.7 Air Resources
4.8 Ecological Resources
4.9 Cultural and Archeological Resources
4.10 Visual Environment
4.11 Noise Environment

The land use section will describe consistency of the proposed action with current land use plans and development patterns in the project area. This section will describe consistency with Town of Clay and Town of Cicero municipal plans and land use regulations, including zoning. As noted previously the project is located in an Industrial 2 Zoning District which permits the types of industrial uses being considered for the Clay Business Park.

Changes in community character and in local or regional demographics that could result from the project will be explored. Changes in demographic and socioeconomic conditions resulting from build-out of the site, for example due to a possible influx of new residents, could have implications on local services, taxes, property values, housing, schools and other community facilities. These potential impacts will be addressed based upon full build-out of the proposed development scenario.

Potential impacts of the project upon transportation systems and local road networks particularly from increased vehicular traffic along NYS Route 31 will be discussed in detail since this is one of the more potentially significant impacts that could result from the project. Route 31 through the towns of Clay and Cicero has experienced rapid development and increased traffic in recent years and further increases are likely with or without the project, based on recent corridor studies. The impact on traffic conditions along the Route 31 corridor and adjoining intersections will be evaluated for different levels of build-out at the Clay Business Park. Impact analysis will consider phased build-out at 25, 50, 75 and 100 percent intervals. Mitigation will consider road and intersection improvements adjacent to the Park, for example at the NYS Route 31/Caughdenoy Road intersection. Mitigation may include new traffic signals, turning lanes and improved signage. Required mitigation will be determined from the traffic analysis being conducted and in consultation with the NYS DOT and Onondaga County DOT.

Substantial changes in pedestrian activity or the availability or use of public transit near the project is not anticipated at this time and so this discussion will not be provided in great detail. Build-out may create situations where increased pedestrian and transit activity results in the need for safety and access considerations near the site. This section will also discuss the possible use of the existing CSX rail line alongside Caughdenoy Road to serve the site and move freight and materials to and from industrial tenants and how this use may or may not affect other modes of transportation.

With the exception of the lack of sanitary sewer infrastructure at the Clay Business Park all other utilities are anticipated to have sufficient capacities and ready access to provide service to the project. The DGEIS will provide verification from personal communications or other documentation from service providers as to the ability of existing utilities to support site development. Utility service thresholds or limits on capacities will be identified based upon information from providers.

The project will require provision of sewers to service future industrial tenants. The infrastructure required will be a focus of discussion because any sewer infrastructure will need to extend from the Clay Business Park to Onondaga County's Oak Orchard Wastewater Treatment Plant located approximately 3 miles northwest of the project. Potential impacts and mitigation for construction of new sewer will be discussed. Alternative routes are being considered and a preferred route will be chosen in part by considering the potential for adverse impacts and level of mitigation that may be required to construct the system. This discussion will include the possibility of formation of a sewer district to finance improvements. New sewer infrastructure can affect development in the area and these implications will be discussed as well under the growth-inducing aspects of the project.

The potential for impacts upon other community services and facilities will also be discussed based on a set of assumptions under the proposed development scenario, including possible employment levels at full build-out. This section will consider impacts upon local schools and other institutions, emergency service providers, and quality of life considerations including local parks, recreation resources and open spaces.

The impact of site development upon natural features found on site including topography, geologic features and soils will be identified. Mitigation to minimize or avoid significant adverse impacts will be discussed including the need for stormwater management and sedimentation and erosion control during and post-construction. Soil conservation, stockpiling, re-vegetation and other best management practices to control soil erosion and sedimentation, maintaining water quality in streams and wetlands, and protection methods for vegetation and natural habitats will be addressed. Subsurface and bedrock conditions and how they relate to potential development of the site will be discussed based in part on past geotechnical investigations conducted in the project area.

The potential impact on State and federal wetlands due to build-out will be identified. Efforts to avoid or minimize the extent of adverse impacts by considering alternatives will be described and cross-referenced to the alternatives section. Mitigation measures for the projected loss of any wetlands will be reached in consultation with the NYSDEC and Army Corps of Engineers. It is assumed that any loss of wetlands will be mitigated both on and off-site through wetland restoration, creation, and enhancement. The northern portion of the Clay Business Park north of the existing electric transmission line right-of-way is thought to be a potentially viable area for mitigation given the presence of State regulated wetlands. Other locations will be considered for mitigation.

The determination of potential adverse impacts on air quality from site development will depend on the types of industrial uses and emissions generated by tenants. The potential changes in traffic conditions in the area may have implications on air quality if reduced levels-of service at intersections along the NYS Route 31 corridor are projected. These implications of site development will be discussed along with what mitigation measures may be needed to reduce potential impacts. It is assumed that future tenants will need to go through specific state and federal air quality permit processes as necessary.

Ecological impacts resulting from the project will be limited as a result of avoiding significant ecological resources on site and along the proposed sewer line and road improvement areas to the extent practicable. Nevertheless impacts may occur and mitigation necessary to reduce adverse impact to ecological resources will be described.

Impacts to cultural and archeological resources at the Clay Business Park and along the sewer line and in areas of road improvements along Caughdenoy Road will be determined in consultation with the NYSOPRHP under the New York State Historic Preservation Act. Particular emphasis will be on potential effects on resources listed on or eligible for inclusion on the State and National Register of Historic Places. The results of a Phase IA archeological resource investigation of the site and sewer line route will be provided in the DGEIS in compliance with NYSOPRHP requirements. If impacts are identified appropriate mitigation will be discussed. Mitigation may include resource avoidance, documentation and/or removal.

The visual impacts of the project will be described in general terms relative to anticipated changes in visual character and views of the site once development occurs. Mitigation alternatives to mitigate potentially adverse visual impacts on receptors and the NYS Route 31 corridor will be addressed according to levels of practicability and screening effectiveness. Impacts and mitigation will consider lighting and the maintenance or establishment of visual buffers and screening.

Noise impacts associated with development of the site will be considered for both construction and operation of industrial uses. Impacts and mitigation measures to reduce adverse impacts on the community will be described for both short-term and long-term periods. Best management construction practices to control noise generation will be identified. Mitigation may include recommendations for the location of staging areas, limits on hours of construction activity and establishing a complaint resolution process. The project will be discussed in terms of compliance with current Town of Clay noise regulations. Noise generation from operation of industrial uses will ultimately depend on future tenants. However, estimations of noise levels, distances to sensitive receptors and sources of noise based on the proposed development scenario will be addressed. Mitigation measures to limit operational noise will be identified and may include for example, building and source placement or screening to reduce noise levels at receptor locations.

5.0 Cumulative Impacts

The SEQRA implementing regulations state: "In connection with projects that are to be developed in phases or stages, agencies should address not only the site specific impacts of the individual project under consideration, but also, in more general or conceptual terms, the cumulative impacts on the environment and the existing natural resource base of subsequent phases of a larger project or series of projects that may be developed in the future. In these cases, this part of the generic EIS must discuss the important elements and constraints present in the natural and cultural environment that may bear on the conditions of an agency decision on the immediate project." The DGEIS will identify the potential cumulative impacts from the proposed action on the environment in combination with other projects in the area that are planned or likely to occur in the near future with or without the project. Cumulative impacts will consider, but may not be limited to increased traffic along NYS Route 31; loss of wetlands and natural habitat; conversion of farmland and open space; increased stormwater, drainage and water quality issues; and changes in ambient noise and visual character.

5.1 Cumulative Impacts on Natural Resources

5.2 Cumulative Impacts on Man-made and Cultural Resources

6.0 Unavoidable Adverse Impacts

The DGEIS will focus on the avoidance, minimization and mitigation of potentially significant adverse impacts on environmental resources. However, if despite mitigation measures proposed, or if impacts cannot be avoided, those impacts will be considered an unavoidable impact of the project and will be identified in this section. Unavoidable impacts will be characterized as short-term or long-term and as minor, moderate or significant. Each will be discussed as to why they are unavoidable. Changes in visual character, construction impacts that alter site conditions, and increases in traffic are some likely impacts to be discussed.

6.1 Changes in Visual Character

6.2 Construction Impacts

6.3 Traffic Conditions

6.4 Other Unavoidable Impacts

7.0 Growth Inducing Aspects

The development of the Clay Business Park may facilitate or induce further land use changes and development in the project area, particularly along the NYS Route 31 corridor. The growth inducing aspects of the project will be discussed in terms of its possible geographic extent, what type of growth might occur, and how induced growth can be managed in a sustainable manner to limit adverse impacts on the environment. Anticipated population growth and how infrastructure to the site can be designed and managed to minimize adverse changes will be addressed based on lessons learned from similar projects elsewhere and consultation with local and regional planning and other stakeholder agencies and organizations.

7.1 Population Growth

7.2 Infrastructure Induced Growth

7.3 Changes in Development Patterns

8.0 Irreversible and Irretrievable Commitment of Resources

This section will describe in general terms the commitment of natural and man-made resources that will be necessary to develop the Clay Business Park considering natural resources, construction and building materials, energy use, and human capital and financing. Short and long-term gains and losses from the consumption, conversion and commitment of resources will be discussed.

8.1 Commitment of Resources

9.0 Effect on the Use and Conservation of Energy Resources

It is beyond the scope of the GEIS to identify specific energy use and demand that may result from site development because specific industrial tenants, energy requirements and uses are unknown. Some general energy demand estimates are possible based on the proposed development scenario and previous industrial interest expressed to the OCIDA. This section will discuss ways to implement energy conservation measures at the Clay Business Park by encouraging best management practices during its design, construction and operation. A variety of issues will be addressed including those related to the recycling of materials used in industrial operations, the use of recycled materials to reduce solid waste streams and design of buildings and grounds. Leadership in Energy and Environmental Design (LEED) voluntary standards developed by the U.S. Green Building Council to promote high performance and sustainable buildings will be addressed. Renewable energy sources and implementing green infrastructure practices, for example with regard to stormwater management, will also be discussed.

9.1 Energy Use and Conservation

10.0 Solid Waste Management

The DGEIS will discuss the potential impacts and implications of the proposed action on local and regional solid waste management. It is beyond the scope of the GEIS to identify specific materials and quantities in waste streams from site development because industrial tenants and uses are unknown. Some general waste generation estimates are possible based on the proposed development scenario and experience with similar uses. Best management practices that could be considered to reduce, reuse, and recycle industrial materials and products will be discussed in general terms.

10.1 Solid Waste Management

11.0 References

Sources of information cited in the DGEIS and reviewed as reference materials during the preparation of the DGEIS will be listed in the References section. Information will be provided by author, date and title. Website information will be noted. In addition significant conversations with agency personnel that are cited in the document will be listed by name, date and organizational affiliation.

DGEIS Appendices

The DGEIS will contain relevant studies, technical reports, data and maps that support the narratives provided within the DGEIS. The following documents are tentative, but likely to be included as appendices:

- SEQRA Documentation
- Agency Correspondence
- Traffic Analysis Report and Data
- Wetlands Delineation Report
- Ecological Resources Report
- Sewer Engineering Report
- Cultural Resources Report

Newspaper
Legal Notice:
Clay Business Park Notice of Draft Generic Environmental Impact Statement Completion and Public Hearing

The Onondaga County Industrial Development Agency (OCIDA) has prepared a Draft Generic Environmental Impact Statement (DGEIS) in connection with its Clay Business Park development project and as determined that the DGEIS is complete and adequate for the purpose of public review.

OCIDA proposes to develop the Clay Business Park, comprised of approximately 339 acres located northeast of Route 31 and Caughdenoy Road, in Clay, for a mix of industrial uses. They may include office, research, manufacturing, assembly, warehousing and distribution facilities. A 4.3 mile sewer line roughly parallel to Route 31 and improvements along Caughdenoy Road and at its intersection with Route 31 are proposed in connection with this project.

Potential environmental impacts include a change in the existing character of the area and the addition of new vehicle trips to the adjacent road network. Some degree of soil erosion and sedimentation will occur as a result of construction. Both construction and operation of facilities will produce air pollutants. Less than 0.5 acres of wetland will be affected. Structures will likely be visible for a half mile or more. Construction and operation of facilities will produce noise as will vehicles entering and leaving the park. Construction will require the commitment of natural resources in building materials. Operation will require the commitment of waste water treatment capacity at the Oak Orchard Wastewater Treatment Plant, and energy resources. Both construction and operation will generate solid waste.

The DGEIS is available on the OCIDA website, http://www.Syracsusecentral.com/Economic-Development-Services-Industrial-Development-Agency.aspx or by calling (315) 435-3770.

OCIDA will receive public and agency comment on the project and the DGEIS at a public hearing on October 16, 2012 at 6:00 p.m. at the Town of Clay Town Hall, 4401 Route 31, Town of Clay.

Send written comments to OCIDA at 333 West Washington Street, Suite 130, Syracuse, New York 13202. Comments will be accepted until October 29, 2012.

# # #

14-12-9 (3/99)-9c

SEQR

State Environmental Quality Review

Notice of Completion of Draft

and

Notice of SEQR Hearing

Lead Agency: Onondaga County Industrial Development Agency **Project Number**

Address: 333 West Washington Street, Suite 130
Syracuse, New York 13202

Date September, 2012

This notice is issued pursuant to Part 617 of the implementing regulations pertaining to Article 8 (State Environmental Quality Review Act) of the Environmental Conservation Law. (and local law # n/a if any)

A Draft Environmental Impact Statement has been completed and accepted for the proposed action described below. Comments are requested and will be accepted by the contact person until October 29, 2012 A public hearing on the Draft EIS will be held on 10/16/12 at 6:00p.m. (date and time) at Town of Clay Town Hall, 4401 Route 31, Clay (place).

Name of Action:

Clay Business Park

Description of Action:

OCIDA proposes to develop approximately 339 acres for a mix of industrial uses. They may include office, research, manufacturing, assembly, warehousing and distribution facilities. Sewer line and road improvements are proposed in connection with the project.

Location: (Include street address and the name of the municipality/county. A location map of appropriate scale is also recommended.)

Northeast of Route 31 and Caughdenoy Road, Town of Clay.

Potential Environmental Impacts:

Potential environmental impacts include: Change in the existing character of the area and the addition of new vehicle trips to the adjacent road network. Some degree of soil erosion and sedimentation will occur as a result of construction. Both construction and operation of facilities will produce air pollutants. Less than 0.5 acres of wetland will be affected. Structures on site will likely be visible for a half mile or more. Construction and operation of facilities will produce noise as will vehicles entering and leaving the park. Construction will require the commitment of natural resources in building materials. Operation of the park will require the commitment of waste water treatment capacity and energy resources. Both construction and operational will generate solid waste.

A copy of the Draft / Final EIS may be obtained from:

Contact Person: Mary Beth Primo, Executive Director

Address: 333 West Washington Street, Suite 130
Syracuse, New York 13202

Telephone Number: (315) 435-3770

A copy of this notice must be sent to:

Department of Environmental Conservation, 625 Broadway Albany, New York 12233-1750

Chief Executive Officer, Town/City/Village of Clay

Any person who has requested a copy of the Draft / Final EIS

Any other involved agencies

Environmental Notice Bulletin 625Broadway Albany, NY 12233-1750

Copies of the Draft EIS must be distributed according to 6NYCRR 617.12(b).

STATE OF NEW YORK

ONONDAGA COUNTY INDUSTRIAL DEVELOPMENT AGENCY

In the Matter of the Public Hearing re:

WHITE PINE COMMERCE PARK (FORMERLY CLAY BUSINESS PARK)

Draft Generic Environmental Impact Statement

4401 Route 31
Clay, New York

Tuesday, October 16, 2012
6:00 p.m.

Present:

MARY BETH PRIMO
Executive Director
OCIDA

WALTER KALINA, AICP
Principal Planner
Clough Harbour & Associates

KRISTI SMILEY, OCIDA
CAROLYN MAY, OCIDA

Reported by:PAMELA PALOMEQUE, RPR

MS. PRIMO: Good evening, everyone, and for the purposes of the record I will go through the whole introduction. I am Mary Beth Primo and I'm the Executive Director of the Onondaga County IDA, Industrial Development Agency. I'm here tonight with two members of our staff, Kristi Smiley, who is a secretary for the agency, and Carolyn May and we're also joined tonight by Walt Kalina. Walt Kalina is a planner and works for the engineering firm CHA.

CHA has been retained by OCIDA and has worked with us for the past couple years and will continue to work with us on the SEQR process. Also with us tonight is John Kluscik. John Kluscik is an attorney with the Gilberti Law Firm and that law firm represents OCIDA.

The IDA -- if you're not familiar with the IDA -- is public benefit corporation. It was created in 1970 pursuant to New York State law, the General Municipal Law, and in general what IDAs are authorized to do is to advance or improve the health, general prosperity, and

the economic welfare of the people in this state and in particular, OCIDA, we're committed to helping new or established businesses grow or build their operations in Onondaga County. We do that by providing benefits such as tax exemptions and to help with on financing, qualified financing of the IDA.

The reason why we're here tonight is that OCIDA is proposing to develop a modern industrial business -- a park on an approximately 339 acre parcel in the Town of Clay, and I know many of you know where it's located, so for the record, I'll tell you, it's the northeast corner of the intersection of Route 31 and Caughdenoy Road.

OCIDA, with the assistance of CHA, has already conducted a scoping process to focus the Draft Generic EIS on potentially significant adverse impacts and to eliminate consideration of those impacts that would be irrelevant or nonsignificant. The scoping process included a 30-day comment period and that ran from April 10th of this year, 2012,

to May 10th, 2012.

Another part of that scoping process was a public hearing that we held here in the Town of Clay on May 3rd, 2012. On September 20th, 2012 the OCIDA board accepted the project's DGEIS as complete; the Draft Generic Environmental Impact Statement is completed. We're here tonight because OCIDA is seeking the public's input or comments regarding the project's Draft Generic Environmental Impact Statement to ensure there will be adequate support in SEQR findings.

This is how we will proceed. First I'm going to read to you the public notice and then there will be a presentation on the project by Walt Kalina of CHA. Then the public will have an opportunity to make comments and there is a restriction, that we probably will waive tonight, for three minutes. You know, if we had a crowd we were going to restrict it for three minutes. Obviously that's not needed.

You should know, following tonight's hearing, OCIDA will continue to accept the

public's written comments until October 29th, 2012.

Okay. Now, I'm going to read the public notice. I just want to say one thing to the woman who walked in; did you have a chance to sign in?

MS. TRUMBLE: She's my mother.

MS. PRIMO: Maybe before you leave you can sign in anyways.

MR. TRUMBLE: They get paid by how many people attend.

(Laughter.)

MS. PRIMO: The Onondaga -- this is the public notice that was published. The Onondaga County Industrial Development Agency has prepared a Draft Generic Environmental Impact Statement in connection with its Clay Business Park development project and has determined that the DGEIS is complete and adequate for the purpose of public review.

OCIDA proposes to develop the Clay Business Park, comprised of approximately 339 acres located northeast of Route 31 and Caughdenoy Road in Clay for a mix of

industrial uses. They may include office, research, manufacturing, assembly, warehousing and distribution facilities. A 4.3 mile sewer line roughly parallel to Route 31 and improvements along Caughdenoy Road at its intersection with Route 31 are proposed in connection with this project.

Potential environmental impacts include a change in the existing character of the area and the addition of the new vehicle trips to the adjacent road network. Some degree of soil erosion and sedimentation will occur as a result of construction. Both construction and operation of facilities will produce air pollutants. Less than 0.5 acres of wetland will be affected. Structures will likely be visible for half a mile or more. Construction and operation of facilities will produce noise as will vehicles entering and leaving the park. Construction will require the commitment of natural resources in building materials. Operation will require the commitment of wastewater treatment capacity at the Oak Orchard Wastewater Treatment Plant and

energy resources. Both construction and operation will generate solid waste.

The DGEIS is available on the OCIDA website, www.Syracusecentral.com/Economic-Development-Services-Industrial-Development-Agency or by calling 315-435-3770. The DGEIS may be reviewed at the Northern Onondaga Public Library at Cicero, 8686 Knowledge Lane, Cicero, or the Central Onondaga Public Library at 447 South Salina Street, Syracuse, and at the Clay Town Offices 4401 Route 31, Clay, or at the Cicero Town Offices, 8236 Brewerton Road, Cicero.

OCIDA will receive public and agency comment on the project and the DGEIS at a public hearing on October 16th, 2012, 6:00 p.m. in the Town of Clay Town Hall, 4401 Route 31, Town of Clay, or you can send written comments to OCIDA at 333 West Washington Street, Suite 130, Syracuse, New York 13202. Comments will be accepted until October 29th, 2012.

Now we'll have a presentation of the project by Mr. Kalina.

MR. KALINA: Okay. If we could look at the slides up on the wall, I'll take about 5 to 10 minutes just to summarize the project and talk a little bit about the EIS. I just want you to notice at the top of this slide, this site has always been known as the Clay Business Park. It's now being referred to as the White Pine Commerce Park. OCIDA has made that name change just recently, so all future references to that site will be the White Pine Commerce Park. Okay?

As Mary Beth indicated, I think the folks here know where the site is. Just to briefly summarize some of the major attributes of the site, 339 total acres are owned by OCIDA. The site is zoned industrial 2 by the Town of Clay, has direct access from New York State Route 31 and within two to four miles of Interstate 81 and 481. The site has plentiful water supplies provided by the Onondaga County Water Authority that's adjacent to the site. We have other utilities adjacent to the site including natural gas, telephone, fiberoptic. The one missing utility is public sewer and

I'll talk about that in a few minutes.

Another thing this site has as a real advantage to industrial use is its proximity to the CSX rail line that crosses Caughdenoy Road just north of the site.

These are the seven parcels that make up the 339 acres. OCIDA has acquired those parcels over the course of a number of years and that's the current total. When we looked at the site in general, we found that development is most suitable in really three locations on the site and I'll talk to that in a few minutes, but those locations are primarily north of Route 31, east of

Caughdenoy Road, and then in the eastern part of the site.

Approximately 182 acres -- that doesn't show up correctly there but approximately 182 acres of the 339 acres are available to support some type of development. The remaining acreage are either things like wetlands or wooded wetlands or setbacks that are required by the Town of Clay. So those really aren't available for development.

When we laid out a conceptual layout for the site, buildings, roads and parking areas will occupy about 110 acres of that 182 acres of the site, so you're looking at development at about 110 acres or roughly a third of the entire site. This is the same graphic that's up here, just really, really quickly to talk from it. This one might be a little bit easier to see but if you were to look at the site, this is 31 here. Obviously Caughdenoy Road here, if you folks are down here. If you look at this graphic, really the gray areas, the areas that are shaded gray are really those most developable portions of the site that we talked about. These areas shaded green are wetlands or wetland buffers along the state wetlands so those areas we really avoided and don't intend to get into them.

That's how we figured out the total acreage of the site. We ran through several different scenarios to figure out what could fit on the site in those developable areas and basically what we came up with was this concept that shows what the maximum buildout

of the site would be. This doesn't mean this is what is actually going to occur on the site. It may occur vastly different from what this concept looks like.

What we're trying to show is really what is the maximum building, parking space that we could fit on that site in those developable areas and still stay out of the wetlands and some of the other vital sensitive areas. When we lay this out, you come out with roughly two to two and a half million square feet of development that could be occupied on that site. What may happen in the future, we don't know. You could have one large company come in and develop the site for all those uses or you could have a number of smaller tenants coming in and develop the different parts of the site but the total development, if they were to build out the site in full, would be about two to two and a half million square feet of total development.

We did that for a reason, for sewer reasons so we could figure out what kind of traffic might be generated, what other kinds

of things could create an impact that would have to be described and addressed in the EIS. So that's the reason for trying to figure out what can fit on the site.

There's really two important things that have to be done to get to this site shovel-ready for a tenant to come in more quickly. Number 1 thing is improvements to the Caughdenoy/Route 31 intersection. These are just some of the things that are proposed right now and we briefly mentioned earlier

that we had the meeting with the State DOT
tomorrow and the County to figure out exactly
what they're going to require in terms of
improvements at the intersection.
Right now we're proposing exclusive
left-turn lanes on all four approaches. You
have an exclusive westbound right-turn lane
onto Caughdenoy Road, so heading west on Route
31, you'll have a right-turn lane onto
Caughdenoy, so you can access the business
park. The intersection would be signalized
with a true traffic signal and arrows; a
widening to three lanes on Caughdenoy Road

from the intersection north to the CSX
crossing, so about .6 to 7-10ths of a mile I
think the road would be widened, so we're not
sure of the exact configuration right now but
it would go from two lanes to three lanes and
that probably would be a center turn lane for
trucks coming in and out of the business park.
And then there's the need for exclusive right
turn lanes from Caughdenoy Road into the park
and that's into the driveways that we've

looked at, three possible locations for driveways into the park itself from Caughdenoy Road.

MR. TRUMBLE: All your access points are going to be from Caughdenoy Road? There's going to be no entry off of 31?

MR. KALINA: We actually show an access point off of 31 right now. That's actually going to be part of the discussion with DOT, to see how comfortable they are with that or whether they're going to be requiring something else. Right now we're showing those four locations.

The other major part of the project is

the installation of sewer force main and that's about 4.3 miles of sewer that would have to be built from, roughly from the northwest corner of the site up in this area because the site all flows this way, so all of this would be fed by gravity sewers to here and then it would be pumped under pressure to a sewer line that is proposed to be built south of 31, and I'll show you the route in a minute. That's about a 4.3 mile distance from the park to the Oak Orchard Wastewater Treatment Plant, if you're familiar with it up on the Oneida River.

What we're proposing is the installation of parallel force mains, one 6-inch pipeline and a 12-inch pipeline and that has a lot to do with sanitary waste sitting in the pipe, you know, for appropriate periods of time so you don't want to oversize the pipes. Doing a dual force main actually allows for some flexibility. If the park develops over time, they could use one force main and the other force main would be for future development or if a tenant were to come in and they had a

combination of sanitary waste, you know, from normal day-to-day sewer waste, and some type of process water from an industrial process, then they could use those two force mains, one for process water and one for sanitary waste. So there's an advantage putting in the two pipelines parallel to each other.

Construction requires trenching down to

about five feet and because there are a number of wetlands that have been identified along the sewer route, that would all be done by directional drilling under those wetlands to avoid directly impacting the wetlands. The -- I don't know if you can see it okay but the blue area obviously is the park that we've been talking about. This is State Route 31, Caughdenoy Road. Here's the CSX line. Route 31 continues on here. The proposed sewer line would come down along the western side of the business park, just east of Caughdenoy Road, just north of 31, cross over and then come down on the west side of Caughdenoy Road and this is about a thousand feet south of 31.

This is an existing Metropolitan Water

Board right-of-way. They've got a major trunk in there, 54-inch trunk line so we would use part of that existing right-of-way to put in the sewer line. And then on the western side of the sewer line, as you're getting close to Mud Creek, then it starts heading north to Oak Orchard Treatment Plant. It would be on the east side of Mud Creek through an existing right-of-way that the County has for their other force mains.

Then on this graphic, we're also showing some of the mapped wetlands that occur in the area. What it doesn't show is a lot of the smaller wetlands that actually exist along that sewer that have been identified out in the field. Potential impacts, really we're not talking about this project resulting in any significant environmental impacts.

OCIDA has avoided wetland impacts by the design of the site, directional drilling under the existing wetlands for the sewer line, but really the focus has been avoiding significant impacts to the environment. All the existing utilities that are adjacent to this site have

capacity to serve the site for its proposed uses.

Cultural resource impacts, we're still in the process of doing some of the cultural resource studies dealing with the State SHPO on some of that along the sewer line, and we've looked at things: Noise, air quality, stormwater, individual character. All of those issues will be permitted through difference processes, either at the State, local, or Federal level, and everything developed on the site will comply with all those different regulations.

Mary Beth had mentioned where the copies of the draft GEIS are available. We brought two sets tonight. There are two sets at the Town Hall, Cicero Town Hall; Cicero Library and sites in downtown Syracuse. Comment period ends in two weeks and we really welcome your comments. If you have concerns or issues, you know, you can voice them here tonight or you can put them in writing, as you mentioned, and any of the comments made here tonight we'll respond to as well as those that

are provided to us in writing, we'll respond to in a final version of the environmental impact and will be completed probably in November of this year.

MS. PRIMO: Thanks, Walt. Okay. So

that's the presentation of the project and at this juncture we are open for any public comments. Andrea?

MS. TRUMBLE: I'm Andrea Trumble. I live just south of 31 on Caughdenoy, on the east side. You're talking the new sewer line is going through. Are those houses there -- we're all on septic through there, so are -- is that able to hook into that sewer line at all?

MR. KALINA: Not directly because this is a force main. This is under high pressure so you won't be able to just attach, you know, a lateral sewer into this force main. That's not really what this sewer line is meant for. It's really meant for a high volume of sanitary waste or processed water under force.

MS. TRUMBLE: And in this development that you're proposing, you're saying anything

can go in there but what's going to support the area? You're talking all these businesses. That's just going to be -- they're all got to go to lunch at some point.

MR. KALINA: You mean if something were going to come to the park, where do the employees go?

MS. TRUMBLE: Right.

MR. KALINA: Absolutely. That's one of the things when a business park like this develops, you'll have a number of employees coming into the area. They will be utilizing local businesses and as well, you know, the industries or businesses that are there are going to need supplies and that type of service will be supported. That will come from the local area.

MS. TRUMBLE: I'm interested in the traffic count that's there now without the park.

MR. KALINA: I don't have the numbers at my fingertips but that's all in the appendix to the EIS. We've done traffic counts. The actual traffic counts were done back in 2010

along all of the local intersections coming into the 31 corridor. We actually looked at all the intersections along 31 from Route 57 all the way east to Thompson Road so there were 19 intersections. All that data is in the EIS right now in an appendix, and that's the data that the State DOT and the County DOT are looking at, and part of our meeting tomorrow with the DOT is to go through all that data and make sure they agree with all the studies being done.

So we'll look at the existing counts. We've done calculations on the type of traffic that will be generated by this type of a facility and that's where we're figuring on, okay, you need a traffic light at Caughdenoy Road; you need the turning lanes. That's part of that whole traffic analysis that's going on right now.

MR. TRUMBLE: My name is Hank Trumble. You're talking about all this traffic volume that's going to be created by this when it does develop. Don't you feel that the traffic coming off of 481 running the full length of

Caughdenoy is going to have some type of effect on this whole deal? You're saying three lanes on the north side but what about the south side? You got that 481 off-ramp that dumps right on Caughdenoy. I think your truck traffic is going to utilize that more than coming in from any other direction.

MR. KALINA: That actually is part of the software that the traffic engineers work with. They actually distribute the likely traffic and where they're going to go, whether they're going to come to the site from the east or go back to the east to 81 or to the west to 481. That's all part of the --

MR. TRUMBLE: They're going to be regulating that?

MR. KALINA: Regulating.

MR. TRUMBLE: Truck drivers?

MR. KALINA: The amount of traffic. I don't think there's any plans right now to regulate the amount of truck traffic. You have to accommodate it with intersection improvements or whatever, whatever else is determined to be necessary. You're talking

about regulating like restricting --

MR. TRUMBLE: You have a 30 mile an hour road that comes up there and nothing but housing developments and now you're going to put trucks on there?

MR. KALINA: As far as the traffic engineers are going to look at -- now I see what you're getting at. Actually coming off of Caughdenoy exit and come up --

MS. TRUMBLE: Because that's the only way up 481.

MR. TRUMBLE: They dump off 481.

MR. KALINA: That's stuff we're talking with the DOT. There's something like that that possibly could be -- I don't want to say related because the idea is to keep all the truck traffic on 31. Yeah.

MR. ULATOWSKI: Damian Ulatowski. The force main that's going to connect the site to the Oak Orchard plant, will that be for the exclusive use of that industrial park or there will be no other connections made to that along the way, as a follow-up to this woman's question here?

MR. KALINA: No, I don't think that's been determined yet. My point was you just can't connect in a lateral from like a house into the force main. It's going to have to be done through a pumping station.

MR. ULATOWSKI: So there is an option that may be available, that that system could accommodate --

MR. KALINA: Yeah. Everything will be dependent upon the capacity at Oak Orchard.

MR. ULATOWSKI: All right.

MR. TRUMBLE: Your half acre impact on the wetlands, is that for your access roads to this property that you're --

MR. KALINA: Yeah, the half acre of impact to the wetlands are -- I don't know if you can see from there but we're actually crossing some of these wetlands to get up to these parts of the site. That may or may not ever happen but there's no other way to access that part of the site without crossing the wetlands on the site and that's about a half acre, and that's the hope that we come with a permit. We've tried to limit the impact on

the wetlands, as we said, and stay out of the
wetlands.
MS. TRUMBLE: The State has already put
one and a half million in towards this
project?
MS. PRIMO: The State has provided a
grant that we haven't -- that OCIDA hasn't
received yet. It's a reimbursement grant and
it's just slightly over 1.5 million, right.
MS. TRUMBLE: Okay.
MR. ULATOWSKI: What's your timeline for
completion of the sewer?
MR. KALINA: I don't want to speak for
the County because it's all going to be part
of the County's process through the web but
what our schedule had proposed was go through
design this winter into early spring and then,
you know, you let out the bids and whatever,
and you might be able to construct the later
part of next year, and really for construction
you're not looking at a very long-term
project, probably three or four months.
MR. ULATOWSKI: We're looking to a
shovel-ready project that would make it much

more marketable?

MR. KALINA: Yeah.

MR. ULATOWSKI: We're looking at a year and a half maybe?

MS. PRIMO: It's really going to be dependent on the county.

MR. ULATOWSKI: In the perfect world.

MS. PRIMO: Right.

MR. TRUMBLE: You're reaching out.

MS. PRIMO: If we could move right along, it would be a year and a half. If there's some -- if there's some gap between design and permitting and the actual commencement of construction, then it could be a little bit longer.

MR. ULATOWSKI: Okay.

MR. TRUMBLE: And the sewer is step one of the project?

MS. PRIMO: Sewer is step one of what --

MR. TRUMBLE: Of the whole project?

MS. PRIMO: We need the sewer.

MS. TRUMBLE: Is the work being done at the corner of Caughdenoy and Maple now?

MS. PRIMO: I don't think so.

MR. KALINA: No.
MS. PRIMO: As far as I know nothing -- we don't even have the -- we don't have the permits; we don't have a design yet, nothing.
MS. TRUMBLE: What is this whole area asking from the taxpayers in Onondaga County?
MS. PRIMO: Well, I mean, I will say this, I don't know exactly what it's asking for but we are looking to the County to support the cost of the infrastructure for this project.
MS. TRUMBLE: Which is the cost of what?
MS. PRIMO: The sewer and the roads.
MS. TRUMBLE: So I can't be too far off, about 530,000 just for the design wise and the sewer?
MS. PRIMO: Is that --
MR. KALINA: Yeah, I think that's pretty much in the ballpark, probably for the engineering for the sewer line.
MS. TRUMBLE: And the whole project --
MR. KALINA: I don't know what the final --
MS. TRUMBLE: -- 4, 5 million?

MR. KALINA: -- figures were. The sewer, yeah, it's in that range. I think it's just over 5 million.

MR. TRUMBLE: This is all going to be funded by the taxpayers? The majority of it?

MR. KALINA: I don't know about the financing, you know, part of the project. All I know at this point is that --

MS. PRIMO: I don't know how the County will handle any kind of reimbursement. They'll create a tax -- a sewer district that serves, you know, around the park, whatever. We don't have those answers so...

MR. ULATOWSKI: Any Federal or State money available or has there been secured State or Federal money for any of the part of the project?

MS. PRIMO: For the infrastructure?

MR. ULATOWSKI: Yes.

MS. PRIMO: The road, and the sewer, not that I'm aware of.

MS. TRUMBLE: I guess really I'd be interested more to hear about the meeting with the DOT tomorrow. I'd like to know what the

town --

MR. KALINA: The agencies, whether it's the State DOT, whether it's, you know, State Historic Preservation office, whether it's any other State, Federal, or local agency, they'll likely be commenting on the project and providing written comments on the project, just like we're encouraging the public to do.

All those letters, all that correspondence from the agencies will be in the final EIS as well as all our responses to those comments. If an agency brings a comments we have to answer all those and put those in the EIS, so all of that will be public information as part of the EIS, the final EIS.

MS. TRUMBLE: Okay, thank you.

MS. PRIMO: Okay. Since there are no other comments --

MS. BELLANGER: Barb Bellanger. I was just wondering if anyone has any idea how far south of the intersection, 31/Caughdenoy Road intersection that might be involved?

MR. KALINA: The only thing that the

engineers have told us yet is we'll get a survey for a thousand feet south of the intersection just to make sure we know where the right-of-ways are, where the utilities are, but that doesn't mean that a thousand feet is going to be affected. We don't know what those lanes are going to look like right now. That's part of the design process.

MS. BELLANGER: Thank you.

MS. PRIMO: Okay. So that wraps it up for the comment period. You should know that, as I said before, we still -- OCIDA is still accepting written comments and will until October 29th. I want to thank you for attending tonight's meeting.

What's going to happen now is OCIDA and CHA and -- you know, once we receive all the comments, we will review those and respond to those. Then the -- they will be put into -- be part of the final, generic EIS. That will be the -- the board will then, OCIDA board will then review that and decide -- once it decides the final GEIS is complete, then findings, statements from all the agencies and

from OCIDA will be gathered, and at that point the board will then make its final -- the agency, OCIDA, will make its final decision and the review process for SEQR will be over. So that's it. Thank you very much.

MR. TRUMBLE: Thank you.

* * *

REPORTER'S CERTIFICATE

I, PAMELA PALOMEQUE, Court Reporter and Notary Public, certify:

That the foregoing proceedings were taken before me at the time and place therein set forth, at which time the witness was put under oath by me;

That the testimony of the witness and all objections made at the time of the examination were recorded stenographically by me and were thereafter transcribed;

That the foregoing is a true and correct transcript of my shorthand notes so taken;

I further certify that I am not a relative or employee of any attorney or of any of the parties nor financially interested in the action.

PAMELA PALOMEQUE, RPR CLR

Notary Public

NEW YORK STATE · OFFICE OF PARKS · RECREATION · HISTORIC PRESERVATION

New York State Office of Parks, Recreation and Historic Preservation

Historic Preservation Field Services Bureau • Peebles Island, PO Box 189, Waterford, New York 12188-0189
518-237-8643
www.nysparks.com

Andrew M. Cuomo
Governor

Rose Harvey
Commissioner

16 October 2012

Mr. Patrick Heaton
edr Companies
217 Montgomery Street
Syracuse, NY 13202

Re: CORPS PERMITS
Clay Business Park
Town of Clay, Onondaga County
12PR04065

Dear Mr. Heaton:

The State Historic Preservation Office (SHPO) has reviewed the information submitted for this project (*Phase 1A Cultural Resources Survey, Clay Business Park, Town of Clay, Onondaga County, New York*; dated September 2012, prepared by edr Companies). Our review has been in accordance with Section 106 of the National Historic Preservation Act and relevant implementing regulations.

Thank you for submitting this report. SHPO has the following comments regarding the report's contents and recommendations.

1. SHPO does not concur with the report's recommendation regarding the exclusion of much of the project's Area of Potential Effects (APE) from archaeological testing based on the interpretation that due to relatively poor drainage much of the area has a low potential for the presence of Native American sites. The information provided in the report indicates that of the three predominant soil series found within the APE, two of these, Collamer and Ontario, which together represent 42% of the area, are moderately well or well drained. In addition, a number of the less abundant soil types present within the APE also are relatively better drained. Examination of Figure 4 in the report reveals a mosaic of soil types with differing drainage characteristics. The juxtaposition of relatively better and more poorly drained soils creates conditions of biodiversity and resource abundance which are often associated with Native American occupation and/or resource procurement.
2. Based on the above, SHPO recommends that the entire APE should be examined in accordance with published guidance. Please note that wetlands are not automatically exempted from the need for field testing. Minor topographic variation within areas broadly defined as wetlands frequently provide better drained locations, sometimes small, which were used as temporary bases for resource collection. Furthermore, climatic variation through the precontact period may have created, at times in the past, dry areas which are now wet.

3. As a possible alternative to conducting a Phase IB survey of the entire APE at this time, consideration may be given to the establishment of a Programmatic Agreement (PA) which would permit survey of discrete portions of the APE as development progresses.
4. SHPO strongly recommends that the Corps of Engineers be consulted as soon as possible regarding the need to undertake Native American consultation for this project.
5. Please remove Figure 5 from the report. Archaeological site locations not directly within a project's APE should not be displayed in a public document.

SHPO requests revision of the Phase IA report based on the preceding comments.

If you have any questions please don't hesitate to contact me.

Sincerely,

Philip A. Perazio

Philip A. Perazio, OPRHP
Phone: 518-237-8643 x3276; FAX: 518-233-9049
Email: Philip.Perazio@parks.ny.gov

Cc: Mary Beth Primo, OCIDA (via email)
Bridget Brown, USACOE (via email)

The U.S. Army Corps of Engineers

Buffalo District, Auburn Field Office
Regulatory Branch
7413 County House Road
Auburn, NY 13021

FACSIMILE TRANSMITTAL HEADER SHEET

COMMAND/ OFFICE		NAME/ OFFICE SYMBOL	OFFICE TELEPHONE NUMBER			FAX NUMBER
FROM: Bridget E. Brown US Army Corps of Engineers-Regulatory Branch		CELRB-TD-RA	315-255-0143			315-255-1492
TO: Mary Beth Primo		Onondaga Co. IDA	315-435-3770			315-435-3669
CLASSIFICATION	PRECEDENCE	NO. PAGES 3	DATE-TIME 29	MONTH 10	YEAR 2012	RELEASER'S SIGNATURE

REMARKS:

Comments on DGEIS for the Clay Business Park

DEPARTMENT OF THE ARMY
BUFFALO DISTRICT, CORPS OF ENGINEERS
1776 NIAGARA STREET
BUFFALO, NEW YORK 14207-3199

REPLY TO

October 29, 2012

Regulatory Branch

SUBJECT: Request for Comments on the DGEIS for Clay Business Park, USACE Processing #2000-02198

Ms. Mary Beth Primo
Onondaga County Industrial Development Agency
333 West Washington Street, Suite 130
Syracuse, NY 13202

Dear Ms. Primo:

This is in reference to your September 25, 2012 request for comments on the Draft Generic Environmental Impact Statement (DGEIS) for the Clay Business Park, located on approximately 339 acre site at 5171 Route 31 in the Town of Clay, Onondaga County, New York.

I have reviewed the DGEIS and offer the following comments:

1. U.S. Army Corps of Engineers (USACE) jurisdictional waters:
    - On July 28, 2006, USACE issued an approved jurisdictional determination (JD) for a 158 acre portion of the Clay Business Park site (southern portion). It identified eight regulated waters including wetland and streams totaling 3.38 acres. This JD expired on July 28, 2012.
    - A previous JD was issued on September 26, 2000, which expired on September 26, 2005, for the portion of the parcel located to the south of the powerline corridor (~244 acre parcel).
    - The DGEIS references a revised delineation report for the new 339 acre site boundary that was completed by Terrestrial Environmental Specialists, Inc. (TES) based on field data collected in 2009 & 2010. This delineation does not appear to have been submitted to USACE for review at this time as I was unable to locate any subsequent requests for JD within our database. On Page 28 of Chapter 3, TES indicates that wetlands B, F, G & H do not appear to be federally regulated waters. The determination of federal jurisdiction will need to be determined by USACE.
    - The DGEIS includes a review for waters along the proposed 4.3 mile long sewerline route and the areas of potential road improvements along Caughdenoy Road. The DGEIS notes delineation will be completed prior to design of the sewer if this route is chosen. The delineation should be provided to USACE for a jurisdictional

Regulatory Branch
SUBJECT: Request for Comments on the DGEIS for Clay Business Park, USACE Processing #2000-02198

determination.

2. Endangered Species: The DGEIS indicates that the project site is within the range of the Indiana bat but does not fully discuss potential impacts to this species (amount of proposed tree clearing activities, etc.) and any mitigation measures. It is suggested that the U.S. Fish and Wildlife Service is contacted to ensure potential impacts are addressed. If a USACE permit is needed for proposed work at the site, USACE will need to determine compliance with the Endangered Species Act prior to any permit decision.

Questions pertaining to this matter should be directed to me at (315) 255-0143, by writing to the following address: U.S. Army Corps of Engineers, 7413 County House Road, Auburn, NY 13021 or by e-mail at: bridget.brown@usace.army.mil

Sincerely,

Bridget E. Brown

Bridget E. Brown
Senior Biologist

Enclosures

United States Department of the Interior

FISH AND WILDLIFE SERVICE
3817 Luker Road
Cortland, NY 13045

October 29, 2012

Ms. Mary Beth Primo
Executive Director
Onondaga County Industrial Development Agency
333 W. Washington Street, Suite 130
Syracuse, NY 13202

Dear Ms. Primo:

This responds to your September 25, 2012, notice of completion of the Draft Generic Environmental Impact Statement (DGEIS) for the Onondaga County Industrial Development Agency's (OCIDA) proposed development of the Clay Business Park located northeast of the intersection of Caughdenoy Road and NYS Route 31 in the Town of Clay, Onondaga County, New York. The DGEIS was prepared to identify potential environmental impacts, permit requirements, and mitigation measures required to develop the site for industrial use. The OCIDA is seeking "shovel ready" status from the state of New York (State) to facilitate development of the site and the DGEIS includes an evaluation of additional infrastructure to support future development in preparation of this request: road and intersection improvements adjacent to the site; a new sanitary sewer line to the Oak Orchard Wastewater Treatment Plant; and wetland mitigation for the potential loss of wetlands from infrastructure improvements.

The DGEIS includes a preferred development scenario for evaluation of impacts as there are no current tenants and uses for the site. The DGEIS provides an overview of the use of generic EIS's when a proposed action is at a conceptual stage of development and timing or project design is uncertain. While this appears to be an allowable review process under the State Environmental Quality Review Act, it is difficult to provide comments on many aspects of the project given the lack of details at this time. We look forward to providing additional comments at the time when project details become available.

The DGEIS discusses the potential need for Section 404 of the Clean Water Act permits from the U.S. Army Corps of Engineers (Corps) for the road improvements and sanitary sewer line while the preferred development concept avoids wetland impacts from future development activities. Please note that federal agencies have responsibilities under Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) to consult with the U.S. Fish and Wildlife Service (Service) regarding projects that may adversely affect federally-listed species or designated critical habitat, and confer with the Service regarding projects that may adversely affect federally-proposed species or proposed critical habitat.

As you are aware, the Service previously provided information regarding federally-listed species for the proposed project in our April 16, 2006, letter to Mr. Phil Rizza of Terrestrial Environmental Specialists, Inc. In that letter we stated there was potential for the federally-listed endangered Indiana bat (*Myotis sodalis*) and the federally-listed threatened bog turtle (*Clemmys [=Glyptemys] muhlenbergii*) to occur within the proposed project area. We then recommended viewing our website* for more information on those species and other listed species that may occur in the vicinity. Section 3.8.4 of the DGEIS provides an overview of the species considered to be potentially present and impacted by the proposed action. In addition to the Indiana bat and bog turtle, the OCIDA considered the potential for the federally-listed threatened American hart's-tongue fern (*Asplenium scolopendrium* var. *americanum*), Eastern prairie fringed orchid (*Platanthera leucophea*), and small whorled pogonia (*Isotria medeoloides*), and the federal candidate for listing, Eastern massasauga (*Sistrurus catenatus catenatus*). The DGEIS concludes that no impacts are anticipated to the bog turtle, American hart's-tongue fern, Eastern prairie fringed orchid, small whorled pogonia, or Eastern massasauga. We agree with this assessment as it appears that there is no suitable habitat for these species in the area.

However, the DGEIS (Section 3.8, Page 37) finds that there is potential for the Indiana bat to forage and/or roost at the site. Since our 2006 letter, additional information on Indiana bat presence in the vicinity of the site has become available. The site is located within 0.8 mile of a known Indiana bat roost tree and within less than 3 miles of multiple roosts and capture locations. Therefore, we would expect some level of Indiana bat summer activity at the site if suitable habitat is present. Further, the site is located within 14 miles of a known hibernaculum and we would also expect some level of Indiana bat spring and fall activity at the site if suitable habitat is present. We reviewed Appendix E of the DGEIS entitled "Vegetation and Wildlife Resources at the Onondaga County Industrial Development Agency Site" and agree with the DGEIS finding that suitable roosting and/or foraging habitat may be present within portions of the proposed project area. Therefore, the next step is to consider whether development of the site may result in any effects to the species. The DGEIS (Section 4.8, Page 33) states that "the project will not adversely impact rare, threatened or endangered plant or wildlife species. Therefore, no mitigation is required." However, we could find no substantial analysis of potential effects of development of the site on the Indiana bat.

The Service considers the potential for direct and indirect[1] effects to federally-listed and proposed species and works with project sponsors to develop conservation measures to address these effects. For example, tree removal should occur between November 1 and March 31 to avoid direct effects to Indiana bats associated with tree clearing. Bright orange fencing/flagging should clearly demarcate trees to be protected compared with those to be cut prior to the initiation of any construction activities at the site. This will help ensure that contractors do not accidentally remove more trees than anticipated. Indirect effects may result from the loss and/or fragmentation of roosting or foraging habitat. In addition to Table 3.8-1 (current vegetative cover types on site) and Table 4.8-1 (pre- and post-development upland vegetative cover types), please provide a table that includes vegetative cover types post-development for each of the

[1] Indirect effects are those that are caused by the proposed action and occur later in time

alternatives/conceptual site layouts. We are interested in impacts to forests as well as other vegetation types that may be used as foraging habitat for Indiana bats. Minimizing project footprints, minimizing fragmentation of forest blocks, and restoring and/or protecting on- and off-site habitat can help address these impacts. Additional information can be found in our New York Field Office Indiana Bat Fact Sheet (enclosed).

In multiple locations throughout the DGEIS, there are statements regarding the lack of observation of any listed animal or plant species during field studies of the site. We discourage general statements to this effect as they can be misleading to the general public. For example, to the best of our knowledge, there were no surveys for bats (e.g., mist-netting or acoustic surveys) conducted onsite; therefore, we would not generally expect that any bats (of any species) would be observed at the site during routine site visits. However, this does not mean that bats do not occur at the site.

The most recent compilation of federally-listed and proposed endangered and threatened species in New York is available for your information. Until the proposed project is complete, we recommend that you check our website every 90 days from the date of this letter to ensure that listed species presence/absence information for the proposed project is current.

The DGEIS also assessed the potential for impacts to the delisted bald eagle (*Haliaeetus leucocephalus*) and the OCIDA does not anticipate any from the project. As you are aware, bald eagles are protected under the Migratory Bird Treaty Act (MBTA) (40 Stat. 755; 16 U.S.C. 703-712), the Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended; 16 U.S.C. 668 *et seq.*), and by the State. In the future, if eagles are found within the project area, the Service recommends that the project sponsor follow the Bald Eagle Management Guidelines found on our website.

The above comments pertaining to endangered species under our jurisdiction are provided pursuant to the ESA, MBTA, and BGEPA. This response does not preclude additional Service comments under other legislation.

The above-listed species are also listed by the State. Any additional information regarding the proposed project and its potential to impact listed species should be coordinated with both this office and with the New York State Department of Environmental Conservation.

Thank you for your time. If you require additional information please contact Robyn Niver at 607-753-9334. Future correspondence with us on this project should reference project file 60578.

Sincerely,

Patricia Cole

for David A. Stilwell
Field Supervisor

Enclosure

*Additional information referred to above may be found on our website at:
http://www.fws.gov/northeast/nyfo/es/section7.htm

cc: NYSDEC, Syracuse, NY (Env. Permits)
NYSDEC, Albany, NY (Wildlife Diversity)

Indiana Bat Project Review Fact Sheet
New York Field Office

This fact sheet is intended to provide information to assist project sponsors, as well as any involved Federal and state agencies, with the review of projects (*e.g.*, residential or commercial development) and activities that occur within the likely range of the Indiana bat (*Myotis sodalis*) within the state of New York (State) to assist in compliance with the Federal Endangered Species Act (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*). **PLEASE NOTE - this fact sheet does not apply to wind development projects as they involve many unique considerations.** Contact the U.S. Fish and Wildlife Service (Service) directly for technical assistance for wind projects. In addition, information on evaluating impacts from wind projects on Indiana bats can be found at http://www.fws.gov/midwest/endangered/mammals/inba/WindEnergyGuidance.html.

The Indiana bat is Federally- and State -listed as an endangered species with a range that extends from the Midwest to northeastern and southeastern parts of the United States. Additional information on Indiana bat occurrences can be found at http://ecos.fws.gov and http://www.fws.gov/northeast/nyfo/es/section7.htm.

In the northeastern United States, multiple state and Federal agencies have investigated Indiana bat movements. In the spring of 2002 through 2007, the New York State Department of Environmental Conservation (NYSDEC) and the Service successfully tracked female Indiana bats from their hibernacula in Essex, Ulster, Jefferson, and Onondaga Counties to their spring roosts, with average distances of up to approximately 40 miles. However, they are capable of flying distances much greater than that and have been documented doing so in other parts of their range (Winhold and Kurta 2006).

The Indiana bat typically hibernates in caves/mines in the winter and roosts under bark or in tree crevices in the spring, summer, and fall. Suitable potential summer roosting habitat is characterized by trees (dead, dying, or alive) or snags with exfoliating bark, or containing cracks or crevices that could potentially be used by Indiana bats as a roost. The minimum size roost tree observed to date is 2.5 inches diameter breast height (d.b.h.) for males and 4.3 inches d.b.h. for females. However, maternity colonies generally use trees greater than or equal to 9 inches d.b.h. Overall, roost tree structure appears to be more important to Indiana bats than a particular tree species or habitat type. Females appear to be more habitat specific than males presumably because of the warmer temperature requirements associated with gestation and rearing of young. As a result, they are generally found at lower elevations than males may be found. Roosts are warmed by direct exposure to solar radiation, thus trees exposed to extended periods of direct sunlight are preferred over those in shaded areas. However, shaded roosts may be preferred in very hot conditions. As larger trees afford a greater thermal mass for heat retention, they appear to be preferred over smaller trees. Additional information on potentially suitable summer habitat can be found in the Draft Indiana Bat Recovery Plan (Service 2007) at http://www.fws.gov/northeast/nyfo/es/IndianaBatapr07.pdf.

Streams associated with floodplain forests, and impounded water bodies (ponds, wetlands, reservoirs, etc.) where abundant supplies of flying insects are likely found provide preferred foraging habitat for Indiana bats, some of which may fly up to 2-5 miles from upland roosts on a regular basis. Indiana bats also forage within the canopy of upland forests, over clearings with early successional vegetation (*e.g.*, old fields), along the borders of croplands, along wooded fencerows, and over farm ponds in pastures (Service 2007). While Indiana bats appear to forage in a wide variety of habitats, they seem to stay fairly close to tree cover.

Threats include habitat loss or degradation, human disturbance, disease (white-nose syndrome), contaminants, and collision with wind turbines.

Evaluation of Presence or Absence of Suitable Habitat

To determine whether the proposed project site may provide suitable habitat for the Indiana bat, the Service recommends the following analytical approach[1]:

1. Is the proposed project within a county[2] identified by the Service as known or likely to contain Indiana bats?
   - If no, no further coordination regarding the Indiana bat is necessary at this time.
   - If yes, proceed to Step 2.

2. Is the proposed project at an elevation of ≤900 feet above sea level (the maximum elevation we have observed Indiana bat summer use in New York)?
   - If no, no further coordination regarding the Indiana bat is necessary at this time.
   - If yes, proceed to Step 3.

3. Is there any suitable Indiana bat habitat[3] present within the proposed action project area?
   - If no, no further coordination regarding the Indiana bat is necessary at this time.
   - If yes, determine whether the proposed project involves any direct or indirect effects to Indiana bats.

Determination of Direct or Indirect Effects

Each project will need an individual assessment of whether direct (those that would result from activities while Indiana bats are present) or indirect effects (those effects that are caused by or will result from the proposed action and are later in time, but are still reasonably likely to occur [50 CFR 402.02]) to Indiana bats are expected.

For example, consider whether a project may result in temporary or permanent increases in noise, vibration, dust, chemical use, lighting, vehicle use, and general levels of human activity. Also, consider whether a project may result in temporary or permanent loss, degradation, and/or fragmentation of roosting, foraging, swarming, commuting, or wintering habitat.

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[1] This reflects our current understanding, but future studies may result in a revision to this guidance.
[2] Review county information provided at http://ecos.fws.gov or http://www.fws.gov/northeast/nyfo/es/section7.htm
[3] Refer to the Recovery Plan and Indiana Bat Section 7 and Section 10 Guidance for Wind Energy Projects document located at http://www.fws.gov/midwest/endangered/mammals/inba/index.html for description of suitable habitat.

Indiana Bat Project Review Fact Sheet
New York Field Office

Surveys for Indiana Bats

Should suitable Indiana bat habitat be present and should the proposed project have the potential for impacting Indiana bats, a determination must be made as to whether the species is present by conducting species surveys which follow current Indiana bat survey protocols[4]. If the species is present, the potential impacts that may result from the proposed project must be evaluated. Due to the limited time frame when bat surveys can be completed and to avoid project delays, it is strongly recommended that the project sponsor (or involved Federal agency) contact the Service as early as possible during project planning to determine if surveys or additional avoidance and/or minimization measures will be necessary. Should Indiana bat presence be detected, the Service should be contacted immediately for further assistance in determining whether your action may adversely affect Indiana bats. If no bats are detected after protocol surveys, please submit the results to the Service as soon as possible for our review.

Conservation Measures

Conservation measures are designed to minimize the likelihood of adverse impacts or result in beneficial effects to Indiana bats from projects. The following guidance represents general recommendations that may be incorporated into the proposed project design as appropriate.

Project Siting

- Avoid removing or damaging known roosts.
- Avoid impacts to forest patches with known roosts/foraging use.
- Minimize impacts to all forest patches.
- Maintain forest patches and forested connections (e.g., hedgerows, riparian corridors) between patches.
- Maintain natural vegetation between forest patches/connections and developed areas.
- Maintain at least 35%[5] of forest habitat within maternity colony home range[6].
- Restore and/or protect on- and off-site habitat.
- Avoid impacting potential roost trees to the greatest extent practicable.
    - Retain standing live trees that have exfoliating (separated from cambium) bark and are greater than 12 inches d.b.h.
    - Retain black locust, shellbark, shagbark, and bitternut hickories as much as possible, regardless of size or condition (live, dead, or dying).
    - Retain standing snags as much as possible regardless of species.

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[4] Found at http://www.fws.gov/midwest/Endangered/mammals/inba/index.html.
[5] Minimum % forest cover within Indiana bat maternity colony home range (NYSDEC unpublished data).
[6] For explanation of how to delineate Indiana bat maternity colony home range, please see the Indiana Bat Section 7 and Section 10 Guidance for Wind Energy Projects document located at http://www.fws.gov/midwest/Endangered/mammals/inba/index.html

Indiana Bat Project Review Fact Sheet
New York Field Office

Project Construction

- When >10 miles from a Priority 3 (P3) or Priority 4 (P4) hibernaculum or >20 miles from a Priority 1 (P1) or Priority 2 (P2) hibernaculum[7], but within the summer range of the Indiana bat, the clearing of potential roost trees, generally ≥4 inches should occur from October 1 through March 31[8].
- When <10 miles from a P3 or P4 hibernaculum or <20 miles from a P1 or P2 hibernaculum, clearing should be conducted from October 31 to March 31.
- Use bright flagging/fencing to demarcate trees to be cleared.

Project Operations/Maintenance

- Minimize lighting impacts (e.g., limit number of lights, direct lights downward, fully shield lights, use motion sensors or timers).
- Avoid use of chemicals (e.g., colorants, copper sulfate) in stormwater detention basins.

As we better understand a given proposed project, including any proposed conservation measures for Indiana bats, we may have additional recommendations. Project sponsors should seek assistance from the Service to develop these measures.

Information to Provide to the Service

The project's environmental documents should identify project activities that might result in adverse impacts to the Indiana bat or their habitat. Information on any potential impacts and the results of any recommended habitat analyses or surveys for the Indiana bat should be provided to the New York Field Office and will be used to evaluate potential impacts to the Indiana bat or their habitat, and to determine the need for further coordination or consultation pursuant to the ESA. We encourage the project sponsor to submit these materials as early in the planning process as possible to all appropriate parties (e.g., involved Federal/State agencies, NYSDEC, Service).

Specifically, the following information should be provided:

- a detailed project description,
- a map of the proposed project area with coarse vegetation cover types (e.g., emergent wetland, open field) in acres,
- a summary table of current vs. proposed future acreage of each cover type,
- provide a summary of the number and description of trees proposed for removal, or if too large to count individual trees, provide the acreage and description of the impact,
- an overlay of new construction on the vegetation map,

[7] See Service 2007 for definitions of Priority 1-4 hibernacula. Contact the NYFO for information regarding the closest hibernaculum to your project
[8] Site specific information may allow for deviations from the listed dates. Also, there may be cases (e.g., very small number of trees) when we believe the likelihood of impacts is low regardless of when tree removal occurs.

- a description of the forested area onsite, including the type of forest (e.g., oak-hickory), approximate stand age, and presence of dead or live trees with split branches or trunks or exfoliating bark,
- photographs representative of all cover types on the site and encompassing views of the entire site,
- a topographic map with the project area identified, and
- a summary of proposed conservation measures.

References:

U.S. Fish and Wildlife Service. 2007. Indiana Bat (*Myotis sodalis*) Draft Recovery Plan: First Revision. U.S. Fish and Wildlife Service, Fort Snelling, MN. 258 pp.

Winhold, L. and A. Kurta. 2006. Aspects of Migration by the Endangered Indiana Bat, *Myotis sodalis*. Bat Research News 47:1-11.

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
REGION 3
333 EAST WASHINGTON STREET
SYRACUSE, NY 13202
www.dot.ny.gov

CARL F. FORD, P.E.
REGIONAL DIRECTOR

JOAN MCDONALD
COMMISSIONER

October 26, 2012

Ms. Mary Beth Primo, Executive Director
Onondaga County Industrial Development Agency
333 West Washington Street, Suite 130
Syracuse, New York 13202

Dear Ms. Primo:

RE: DRAFT GENERIC ENVIRONMENTAL IMPACT STUDY (DGEIS) COMMENTS
CLAY BUSINESS PARK
TOWN OF CLAY, ONONDAGA COUNTY

We have received the Notice of Completion and the subject document.

Unfortunately, upon beginning review of the Traffic Analysis Report (Appendix C) it was noted the study incorporated outdated traffic signal timings and phasing. Therefore, the existing and build condition analysis extrapolated from this data is not indicative of the site and the NY31 corridor, thus limiting the Region's ability to verify the conclusions and mitigation proposed in the document. The Region requests the analysis be performed with the current signal information recently transmitted and the document updated.

As suggested in previous correspondence, the NY31 corridor has experienced growth that has rendered the highway in some locations at or near capacity. At this level, as witnessed in other development projects, the mitigation extent precludes the viability of the project. It may serve the Agency, while revising the traffic analysis, to focus on those industries that create limited trip generation thus reducing need for extensive mitigation.

The Region is concerned with induced growth that could occur with the introduction of sewer infrastructure and basic commercial growth to serve the site. While discussed in Section 7.2 of the document, inclusion of defined steps to manage induced growth should be documented and implemented prior to development.

Again, the Region looks forward to the updated DGEIS.

If you have any questions, please contact Mark Grainer of my staff at 315-428-4612.

Very truly yours,

CARL F. FORD, P.E.
Regional Director of Transportation

cc: Brian Donnelly, OCDOT

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
REGION 3
333 EAST WASHINGTON STREET
SYRACUSE, NY 13202
www.dot.ny.gov

CARL F. FORD, P.E.
REGIONAL DIRECTOR

JOAN MCDONALD
COMMISSIONER

September 18, 2013

Ms. Mary Beth Primo
Director of Economic Development
OCIDA
333 West Washington Street, Suite 130
Syracuse, New York 13202

Dear Ms. Primo:

RE: WHITE PINES BUSINESS PARK
TOWN OF CLAY

The Department appreciated the opportunity to discuss the White Pines Business Park project with OCIDA and other involved parties on August 20, 2013. During that discussion, the Department agreed to inform OCIDA of the Department's conceptual approval of the level of development appropriate for the proposed mitigation.

In July 2013, the Department received the White Pines Business Park Traffic Impact Study (TIS), prepared by CHA, dated May 2013. Upon review, the Department finds that the design of the site can proceed to "Phase II" as defined on page 5 of the TIS. This phase illustrates approximately 250,000 sf, equating to a total of 149 trips in the PM peak. As intensity of land use can vary with building square footage, we have based our decision on the traffic impacts shown from the proposed PM trips, not the square footage. If the use of the site is different than what was proposed in the TIS (split between Industrial Park and Data Center), the traffic impacts are limited to the 149 total PM trips as shown for Phase II.

To mitigate the proposed Phase II build-out, the total reconstruction of the intersection of NYS 31 and Caughdenoy Road is required; whereas, the intersection shall be widened to provide exclusive left turn lanes on all approaches and exclusive westbound, eastbound, and northbound right turn lanes. Specific design criteria for the lengths of these features will be determined in the permitting stage. Also, new traffic signal hardware shall be installed.

Any additional development or related traffic impacts beyond what has been shown in the TIS as Phase II will require additional review and approval by NYSDOT.

As the review of the TIS generated comments, we have enclosed them for current and future reference. It will not be a requirement of the permit to update the TIS at this time, but any future studies shall include the corrections.

If you have any further questions, please do not hesitate to contact Betsy Parmley, of my staff, at (315) 428-4382.

Very truly yours,

ORIGINAL SIGNED BY CARL FORD

CARL F. FORD, P. E.
Regional Director of Transportation

Enclosures

cc: B. J. Donnelly, Commissioner, Onondaga County Department of Transportation
T. Faulkner, CHA

Onondaga County Department of
WATER
ENVIRONMENT
PROTECTION

Joanne M. Mahoney, County Executive
Tom Rhoads, P.E., Commissioner
650 Hiawatha Blvd. West
Syracuse, NY 13204-1194
(315) 435-2260 or (315) 435-6820
FAX (315) 435-5023
http://www.ongov.net/wep/

September 5, 2012

RECEIVED
SEP 10 2012

Mr. Walter Kalina
Clough, Harbour & Associates, LLP
441 South Salina Street
Syracuse, New York 13202-2199

Re: Engineering Report on Wastewater for Clay Business Park

Dear Mr. ~~Kalina~~ Walt:

This letter will acknowledge receipt of the recent report dated June 2012, received August 13, 2012, regarding the above-subject project.

Thank you for properly incorporating the discussion in Section 3.2 concerning the impacts on the Oak Orchard Wastewater Treatment Plant. We note that this project is a high priority for the County Executive and WEP has stretched its limits by reserving 500,000 gallons per day of capacity at Oak Orchard for the project site. As mentioned in the report, BOD load at Oak Orchard WWTP is the critical capacity constraint. It will be very important that the proposed force main not be used to create additional development and load to the Oak Orchard plant. No additional capacity will be available at Oak Orchard without considerable investment and, therefore, the loads and reservations discussed in Section 3.2 of the engineering report should be considered paramount.

A few minor comments for the report as follows:

- The report notes the sewer line work as a one (1) month project; the proposed schedule has a minor conflict—currently showing a six-month calendar.
- The project is presently showing the Water Environment Protection CIP at a value of $5,614,000.
- The proposed sewer force main is in excess of 3.5 miles. Final design should include odor control and pigging launch capacity.
- WEP would be pleased to review and comment on the sewer line design at 25, 50, and 95 percent design reviews.
- The sizing considerations developed in Table 2 on page 6(b) reflect force main capacity for peak hourly flows; we wish to reinforce that the actual capacity reserved for the project is far less. Only 500,000 GPD of treatment capacity is available at Oak Orchard.

We are pleased to be able to support this effort. Please contact the undersigned directly should you have any additional questions.

Sincerely yours,

ONONDAGA COUNTY DEPARTMENT OF
ENVIRONMENTAL PROTECTION

Tom Rhoads, P.E.
Commissioner

TR:sn

cc: Mary Beth Primo
Matthew Millea
Mike Lannon, P.E.
Nick Capozza
Jeanne Powers
File

TRAFFIC IMPACT STUDY

WHITE PINE COMMERCE PARK

TOWN OF CLAY, NEW YORK

Prepared For:

Onondaga County Industrial Development Agency
Office of Economic Development
Onondaga County
333 West Washington Street, Suite 130
Syracuse, NY 13202

Prepared By:

CLOUGH HARBOUR & ASSOCIATES LLP

441 South Salina Street
Syracuse, NY 13202

(315) 471-3920

CHA Project No. 20735

August 2012
Revised May 2013

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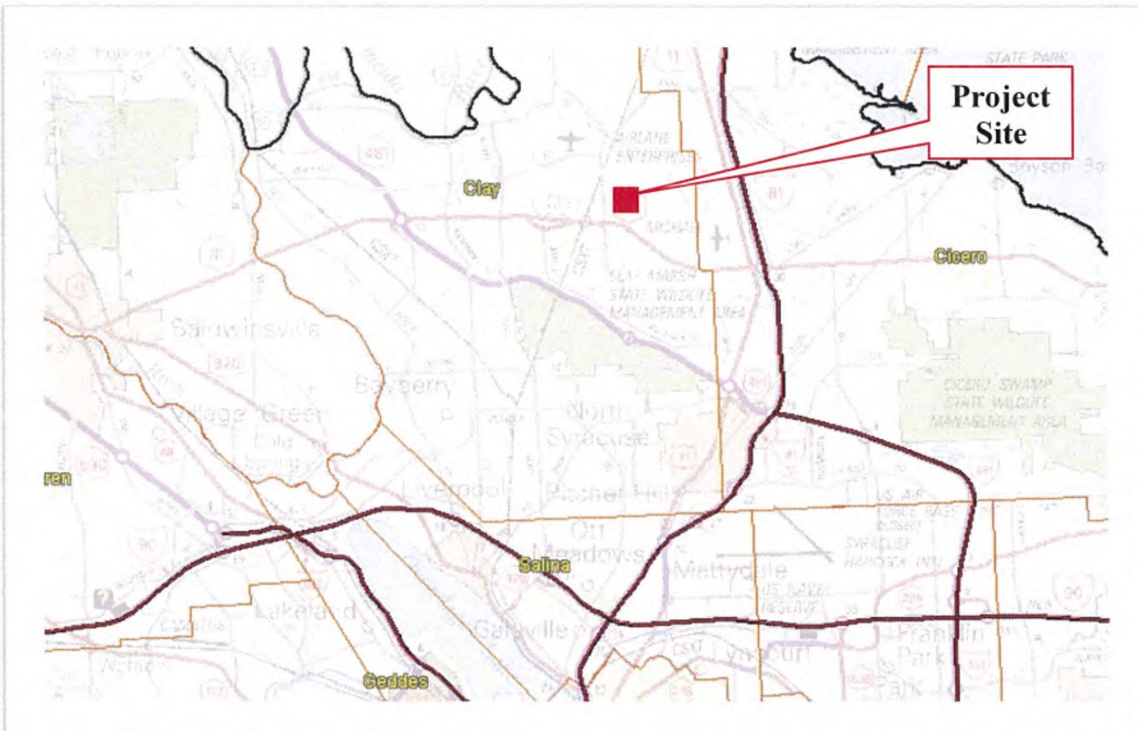
1.0 INTRODUCTION

This study was conducted to evaluate the traffic impacts, if any, of the proposed development of the White Pine Commerce Park on the adjacent roadway network. The proposed site is located in the Town of Clay, New York, on the north side of NYS Route 31 and east of Caughdenoy Road. The site is mostly a mixture of vacant land and wetlands. The site location is displayed below.

Figure 1
Site Location Map
White Pine Commerce Park



The proposed development will consist of approximately 2 million square feet of industrial park development in a series of a number of different buildings. It is anticipated that the White Pine Commerce Park will contain a diverse tenant mix and include data centers, light manufacturing, warehousing and office space. The main access to the site will be through new driveways that will be constructed on Caughdenoy Road approximately 1000 feet north of NYS Route 31. A conceptual site plan is shown in Figure 2 in Appendix A.

2.0 EXISTING CONDITIONS

2.1 Roadway Network

The study area for the proposed development includes the following signalized intersections:

- NYS Route 31/County Route 57
- NYS Route 31/Target Driveway/Lowes Driveway
- NYS Route 31/Dell Center Drive/Willowfield Elementary Driveway
- NYS Route 31/Carling Road
- NYS Route 31/Wegmans East Driveway
- NYS Route 31/Soule Road/NYS Route 481 Southbound Off Ramp
- NYS Route 31/NYS Route 481 Northbound Ramps
- NYS Route 31/Market Fair Mall
- NYS Route 31/Great Northern Mall West Driveway
- NYS Route 31/Great Northern Mall East Driveway
- NYS Route 31/Morgan Road
- NYS Route 31/Henry Clay Boulevard
- NYS Route 31/US Route 11
- NYS Route 31/Interstate 81 Southbound Ramps
- NYS Route 31/Interstate 81 Northbound Off Ramp/Pardee Road
- NYS Route 31/Lakeshore Road Extension
- NYS Route 31/New Country Drive
- NYS Route 31/CNS High School
- NYS Route 31/Thompson Road

In addition, the unsignalized intersection of NYS Route 31 at Caughdenoy Road was also included as part of the study area.

The existing conditions of these roadways are summarized below.

2.2 Data Collection

The existing conditions of the roadway system that serve the study area were documented by a field inventory conducted in February and March 2010 and from previous traffic counts that were provided by the New York State Department of Transportation. The purpose of this inventory was to identify features that affect roadway capacity, including existing traffic control, lane usage, pavement widths, speed limits, etc. Manual traffic counts were conducted during the weekday AM (7-9) and PM (4-6) peak commuter periods at all of the intersections with the exception of the following:

- NYS Route 31/Lakeshore Road Extension
- NYS Route 31/New Country Drive
- NYS Route 31/CNS High School

Peak hour traffic volumes for these study area intersections were obtained from the NYSDOT from traffic counts taken in 2008 and 2009. All traffic data was collected while the local school districts were in session.

2.3 Roadway Description

NYS Route 31 is an east/west roadway classified as an urban principal arterial west of Interstate 81 and an urban minor arterial east of Interstate 81 and is owned by the New York State Department of Transportation. NYS Route 31 provides access to residential and commercial developments along its length between County Route 57 and Thompson Road. In the immediate vicinity of the project site, NYS Route 31 provides access mainly to residential development. In the area of the proposed site NYS Route 31 is a two-lane roadway, approximately 40 feet in width, with a single lane in each direction and 8 foot shoulders. According to New York State Department of Transportation (NYSDOT) traffic counts, NYS Route 31 carries between 13,000 and 26,000 vehicles per day.

2.4 Existing Traffic Volumes

As mentioned in Section 2.2, the existing traffic volumes at the study area intersections were documented by conducting manual traffic counts during the weekday AM and PM peak commuter periods and the Saturday peak period because this is when traffic flow is traditionally highest. This volume data was collected for the time periods of 7:00 – 9:00 a.m. and 4:00 – 6:00 p.m. during the weekday while school was in session. Review of the collected data indicates that the peak hourly volumes generally occur during the following time periods:

- Weekday AM Peak: 7:30 – 8:30
- Weekday PM Peak: 4:45 – 5:45

This information was supplemented by traffic volumes provide by NYSDOT that were used in the development of calibrated Synchro models that were also provided by NYSDOT. The existing weekday AM and PM peak hour traffic volumes for the study area are shown in Figure 3. In addition, existing traffic data for the Saturday peak hour was provided by NYSDOT for all the study area intersections with the exception of Henry Clay Boulevard and Caughdenoy Road. These intersections were counted in March 2013. Existing Saturday peak hour data is also shown on Figure 3.

3.0 FUTURE CONDITIONS

In order to assess the traffic conditions after the proposed development is constructed, it is necessary to estimate the traffic volumes generated by the proposed development and the traffic volumes that will be on the adjacent roadways.

3.1 Background Traffic Condition (Future No Build)

The background traffic condition represents the estimated traffic volumes on the roadway network in the future without the proposed development. It is anticipated that the proposed development will be complete within 15 years. As requested by the NYSDOT, development planned for the area of NYS Route 31 that is within the area of the White Pine Commerce Park has been included in the background traffic conditions. The background traffic includes the following developments:

- Orange Commons – 113 Single Family Homes
- Clay Park – 106 Townhouses, 63,000 SF Retail
- Alt-Davis – 30 Single Family Homes, 17,000 SF Restaurant, 228,000 SF Retail
- Henry Clay Commons – 80,000 SF Retail
- Nice & Easy Phase 2 – 30,000 SF Retail
- Lepinske Property Residential Development – 266 Single Family Homes

These developments have the potential to generate approximately 720 new vehicle trips during the weekday AM peak hour and 2,066 new vehicle trips during the weekday PM peak hour. This information is illustrated in Table 1 below.

Table 1
Background Development
White Pine Commerce Park

	AM Peak	PM Peak
Orange Commons	89	117
Clay Park	75	301
Alt-Davis	220	936
Henry Clay Commons	90	284
Nice & Easy Phase 2	46	160
Lepinske	200	268
Total	**720**	**2,066**

As one will see in the following sections, the trips generated during the AM peak hour are approximately the same as full build out of the White Pine Commerce Park and the trips generated during the PM peak hour is approximately 1.5 times the amount of traffic generated by full build out of the White Pine Commerce Park.

In addition, existing traffic volumes were increased by an annual percentage rate of 1.0 percent per year to serve as increases in traffic due to development that is not known. The 2014, 2016, 2018, 2021, 2024 and 2027 future No Build weekday AM and PM peak hour traffic volumes for the study area are shown in Figures 4 through 9. Future No Build volumes for the 2024 and 2027 Saturday peak hour are shown on Figure 23.

3.2 Trip Generation

The proposed development will add trips to the adjacent street network. The number of trips was estimated using the *Trip Generation* (9th Edition) informational report published by the Institute of Transportation Engineers (ITE). The trips were estimated using ITE Land Use Code 130: Industrial Park and Land Use Code 160: Data Center. Trips were estimated for the following sizes of development 100,000 SF, 250,000 SF, 500,000 SF, 1,000,000 SF, 1,500,000 SF and 2,000,000 SF. For development between, 100,000 SF and 1,000,000 SF, the size of the industrial park and data center were evenly split. After 1,000,000 SF, the size of the data center was held at 500,000 SF while the remaining development was considered industrial park

Trips were generated for the weekday AM and PM peak hours to coincide with the peak hours for which traffic volumes were obtained. As requested by NYSDOT, Saturday peak hour trip generation was also estimated for the 2024 and 2027 Build conditions. It is assumed that all site trips are considered new trips to the surrounding roadway network and represent motorists whose primary destination is the White Pine Commerce Park.

The estimated number of new trips generated for each build out phase is summarized in Table 2. It was assumed the first three phases of development would occur in two year increments and the remaining development in three year increments. The trip generation calculations are contained in Appendix C.

Table 2
Trip Generation
White Pine Commerce Park

Land Use	Year of Completion	Total Size of Development	Weekday AM Peak			Weekday PM Peak			Saturday Peak Hour		
			Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
Phase I	2014	100,000 SF	47	12	59	18	67	85	N/A	N/A	N/A
Phase II	2016	250,000 SF	98	26	124	31	118	149	N/A	N/A	N/A
Phase III	2018	500,000 SF	171	46	217	54	203	257	N/A	N/A	N/A
Phase IV	2021	1,000,000 SF	300	82	382	99	373	472	N/A	N/A	N/A
Phase V	2024	1,500,000 SF	501	126	627	180	677	857	135	261	396
Phase VI	2027	2,000,000 SF	681	166	847	261	981	1242	191	380	571

The estimated trips shown in Table 2 for each phase are the total number of trips that are expected to be generated by each phase of development.

3.3 Trip Distribution

Due to the regional nature of the development and the potential to attract traffic from a wide area, the Syracuse Metropolitan Transportation Council's (SMTC) Regional Travel Demand Model was utilized to estimate how traffic would travel to and from the proposed site. The following summarizes the distribution of traffic:

- Arrive from west – 27 percent
- Arrive from east – 73 percent
- Depart to east – 65 percent
- Depart to west – 35 percent

The distribution percentages for new site trips generated by the White Pine Commerce Park can be seen on Figure 10 Appendix A. The distribution of the site trips is displayed on Figures 11 through 16 in Appendix A. The Saturday trip distributions are illustrated on Figure 24.

3.4 Build Condition

To estimate the cumulative impacts of the White Pine Commerce Park development, the Future No Build traffic volumes were combined with the proposed site trips to develop the Build condition traffic volumes, as shown on Figures 17 through 22 and Figure 25 for the Saturday Build volumes in Appendix A.

4.0 CAPACITY ANALYSES

Intersection capacity analyses were conducted for the study area intersections using methodology outlined in the *Highway Capacity Manual 2000* (HCM 2000) published by the Transportation Research Board. Appendix B provides descriptions of the level of service (LOS) criteria for signalized and unsignalized intersections. LOS criteria are measured in average delay per vehicle (seconds), and range from LOS A to LOS F. An overall intersection LOS of E or better is generally considered acceptable during peak periods for signalized intersections in highly congested corridors such as Route 31. A LOS of E or better is generally considered acceptable for unsignalized movements during peak periods. A LOS F represents unacceptable operating conditions at any intersection.

The intersections were analyzed for the weekday AM and PM peak hours for the Existing, No Build and Build conditions and for the Saturday peak hour for a select set of build out years. All study area intersections are signal controlled with the exception of NYS Route 31 at Caughdenoy Road and Caughdenoy Road at the proposed Entrance Driveways which are stop sign controlled on the minor street approaches. For the stop sign controlled intersections, LOS results are shown for the stop controlled driveway approach and the left turn from the major roadway.

For the Build analyses, the only improvement that is included in the analyses is a new traffic signal at the intersection of NYS Route 31 and Caughdenoy Road and widening at the intersection. The proposed widening includes left turn lanes on all approaches and right turn lanes on all approaches except the southbound approach of Caughdenoy Road. It should be noted that the eastbound right turn lane and the northbound right turn lane are needed at this intersection because of the development described in **Section 3.1** that is located south of NYS Route 31 and not the White Pine Commerce Park.

Tables 3-8 on the following pages show the overall intersection operation for each of the No Build and Build scenarios. More detailed summaries by movement are included in Appendix C. Also included in Appendix C is a summary of queue lengths by movement for each of the study area intersections.

It should be noted that all the analyses were performed using the most recent signal timing information (2012) that was provided by NYSDOT. All future year analyses were completed using the same signal timing information to provide a basis for comparison.

Table 3
Level of Service Summary - Phase I

Intersection With NYS Route 31	2012 Existing		2014 No Build		2014 Build	
	AM	PM	AM	PM	AM	PM
County Route 57	C(24.2)	D(40.6)	C(25.0)	D(54.9)	C(25.0)	D(55.3)
Target Driveway	B(12.2)	C(29.5)	B(11.9)	D(36.1)	B(11.9)	D(36.7)
Dell Center Drive	B(10.8)	B(12.0)	B(10.7)	B(12.5)	B(10.7)	B(12.6)
Carling Road	A(8.3)	C(29.3)	A(8.7)	D(37.1)	A(8.7)	D(37.7)
Wegmans East	A(5.1)	C(21.7)	A(4.7)	C(26.6)	A(4.6)	C(26.9)
Soule Road/I-481 SB	B(15.7)	D(37.5)	B(16.5)	E(59.8)	B(16.5)	E(58.8)
I-481 NB	A(9.0)	C(34.7)	A(8.6)	D(52.3)	A(8.6)	D(53.0)
Marketfair Mall	A(1.7)	A(9.2)	A(1.7)	B(16.2)	A(1.7)	B(16.3)
Great Northern Mall West	B(11.5)	C(21.2)	B(12.9)	E(64.3)	B(12.9)	E(66.1)
Great Northern Mall East	A(8.5)	B(10.3)	A(8.6)	B(11.2)	A(8.6)	B(11.3)
Morgan Road	C(26.8)	D(40.6)	C(30.2)	E(75.9)	C(30.3)	E(77.7)
Henry Clay Boulevard	B(13.6)	D(40.3)	C(26.9)	F(269)	C(28.0)	F(280)
Caughdenoy Road	A(4.1)	A(6.7)	F(25.4)	F(999)	B(14.1)	C(23.5)
US Route 11	C(23.6)	D(36.0)	C(26.3)	D(48.2)	C(26.5)	D(51.4)
I-81 SB Ramps	D(35.9)	C(26.5)	E(58.6)	E(66.1)	E(59.5)	E(72.7)
I-81 NB Ramps	C(21.4)	D(48.5)	C(23.7)	F(95.0)	C(24.2)	F(97.1)
Lakeshore Road Spur	B(10.5)	C(20.4)	B(10.5)	C(24.0)	B(10.4)	C(24.0)
New County Plaza	B(10.6)	A(8.8)	B(10.8)	A(9.4)	B(10.8)	A(9.4)
CNS High School	B(12.2)	B(10.3)	B(14.2)	B(14.5)	B(14.2)	B(14.7)
Thompson Road	B(15.4)	C(25.2)	B(15.9)	D(49.2)	B(15.9)	D(50.4)

Table 4
Level of Service Summary - Phase II

Intersection With NYS Route 31	2016 No Build		2016 Build	
	AM	PM	AM	PM
County Route 57	C(25.4)	E(58.4)	C(25.4)	E(59.1)
Target Driveway	B(11.9)	D(38.6)	B(11.9)	D(39.4)
Dell Center Drive	B(10.7)	B(12.8)	B(10.7)	B(12.9)
Carling Road	A(8.7)	D(39.6)	A(8.7)	D(40.7)
Wegmans East	A(4.7)	C(29.0)	A(4.7)	C(29.8)
Soule Road/I-481 SB	B(16.7)	E(61.2)	B(16.8)	E(61.7)
I-481 NB	A(8.7)	D(59.0)	A(8.7)	E(60.6)
Marketfair Mall	A(1.7)	B(18.1)	A(1.7)	B(18.4)
Great Northern Mall West	B(13.1)	E(67.2)	B(13.2)	E(70.1)
Great Northern Mall East	A(8.6)	B(11.4)	A(8.7)	B(11.5)
Morgan Road	C(31.4)	E(79.3)	C(31.6)	F(82.4)
Henry Clay Boulevard	C(29.0)	F(280)	C(32.6)	F(297)
Caughdenoy Road	F(27.9)	F(999)	B(14.5)	C(25.1)
US Route 11	C(27.0)	D(50.5)	C(27.3)	D(57.4)
I-81 SB Ramps	E(63.4)	E(72.9)	E(64.9)	F(85.2)
I-81 NB Ramps	C(24.7)	F(104)	C(25.7)	F(108)
Lakeshore Road Spur	B(10.6)	C(24.9)	B(10.6)	C(25.1)
New County Plaza	B(10.9)	A(9.8)	B(10.9)	A(9.7)
CNS High School	B(14.7)	B(15.2)	B(14.8)	B(15.6)
Thompson Road	B(16.3)	D(54.5)	B(16.3)	D(57.4)

Table 5
Level of Service Summary - Phase III

Intersection With NYS Route 31	2018 No Build		2018 Build	
	AM	PM	AM	PM
County Route 57	C(25.6)	E(62.4)	C(25.8)	E(63.8)
Target Driveway	B(12.0)	D(41.3)	B(12.0)	D(43.0)
Dell Center Drive	B(10.8)	B(12.9)	B(10.7)	B(13.0)
Carling Road	A(8.8)	D(34.2)	A(8.8)	D(45.6)
Wegmans East	A(5.0)	C(32.1)	A(5.0)	C(33.8)
Soule Road/I-481 SB	B(17.0)	E(65.0)	B(17.2)	E(66.1)
I-481 NB	A(8.7)	E(65.9)	A(8.7)	E(69.1)
Marketfair Mall	A(1.6)	C(20.7)	A(1.7)	C(21.6)
Great Northern Mall West	B(13.5)	E(70.1)	B(13.5)	E(75.4)
Great Northern Mall East	A(8.8)	B(11.6)	A(8.8)	B(11.7)
Morgan Road	C(32.8)	F(83.1)	C(33.1)	F(88.4)
Henry Clay Boulevard	C(32.7)	F(289)	D(38.6)	F(319)
Caughdenoy Road	F(31.0)	F(999)	B(14.1)	C(27.3)
US Route 11	C(27.7)	D(53.3)	C(28.2)	E(67.4)
I-81 SB Ramps	E(69.6)	F(80.3)	E(71.7)	F(102)
I-81 NB Ramps	C(26.1)	F(113)	C(27.6)	F(119)
Lakeshore Road Spur	B(10.7)	C(26.0)	B(10.7)	C(26.1)
New County Plaza	B(11.1)	A(9.8)	B(11.1)	A(9.8)
CNS High School	B(15.1)	B(16.3)	B(15.4)	B(17.1)
Thompson Road	B(16.5)	E(62.0)	B(16.5)	E(64.7)

Table 6
Level of Service Summary - Phase IV

Intersection With NYS Route 31	2021 No Build		2021 Build	
	AM	PM	AM	PM
County Route 57	C(26.1)	E(69.0)	C(26.3)	E(72.1)
Target Driveway	B(12.0)	D(46.2)	B(12.0)	D(49.9)
Dell Center Drive	B(11.6)	B(13.3)	B(11.5)	B(13.4)
Carling Road	A(9.0)	D(50.0)	A(9.0)	D(54.5)
Wegmans East	A(5.1)	D(39.0)	A(5.0)	D(42.7)
Soule Road/I-481 SB	B(17.3)	E(71.6)	B(17.7)	E(74.1)
I-481 NB	A(8.8)	E(78.5)	A(8.8)	F(84.6)
Marketfair Mall	A(1.6)	C(25.5)	A(1.6)	C(27.1)
Great Northern Mall West	B(13.9)	E(74.5)	B(14.1)	F(84.5)
Great Northern Mall East	A(9.0)	B(12.0)	A(9.1)	B(12.3)
Morgan Road	C(34.8)	F(89.1)	D(35.8)	F(100)
Henry Clay Boulevard	D(37.4)	F(306)	D(52.3)	F(365)
Caughdenoy Road	F(35.0)	F(999)	B(15.0)	C(32.8)
US Route 11	C(28.8)	D(57.6)	C(29.8)	F(88.6)
I-81 SB Ramps	E(77.7)	F(91.1)	F(82.7)	F(133)
I-81 NB Ramps	C(27.9)	F(127)	C(32.4)	F(142)
Lakeshore Road Spur	B(10.9)	C(27.8)	B(10.8)	C(27.9)
New County Plaza	B(11.3)	B(10.1)	B(11.4)	B(10.2)
CNS High School	B(16.1)	B(18.1)	B(16.3)	C(20.4)
Thompson Road	B(17.0)	E(69.7)	B(17.1)	E(71.6)

Table 7
Level of Service Summary - Phase V

Intersection With NYS Route 31	2024 No Build			2024 Build		
	AM	PM	Sat.	AM	PM	Sat.
County Route 57	C(26.4)	E(76.9)	D(51.9)	C(26.9)	F(83.6)	D(52.4)
Target Driveway	B(12.1)	D(52.0)	E(57.2)	B(12.0)	E(59.3)	E(60.2)
Dell Center Drive	B(11.7)	B(13.5)	C(25.3)	B(11.6)	B(14.1)	C(27.2)
Carling Road	A(9.2)	E(56.2)	D(40.7)	A(9.2)	E(64.5)	D(43.5)
Wegmans East	A(5.2)	D(45.9)	C(24.7)	A(5.1)	D(52.9)	C(25.0)
Soule Road/I-481 SB	B(18.0)	E(79.1)	F(170)	B(18.5)	F(85.8)	F(172)
I-481 NB	A(9.0)	F(92.9)	C(23.1)	A(8.9)	F(105)	C(23.8)
Marketfair Mall	A(1.6)	C(31.1)	C(23.7)	A(1.7)	C(34.1)	C(25.5)
Great Northern Mall West	B(14.5)	E(79.3)	E(64.5)	B(14.9)	F(97.9)	E(71.2)
Great Northern Mall East	A(9.3)	B(12.4)	B(13.5)	A(9.4)	B(13.0)	B(13.7)
Morgan Road	D(37.4)	F(95.6)	E(70.7)	D(38.8)	F(118)	E(76.0)
Henry Clay Boulevard	D(43.7)	F(326)	F(218)	E(72.6)	F(429)	F(296)
Caughdenoy Road	F(35.0)	F(999)	F(999)	B(15.4)	E(61.3)	E(56.1)
US Route 11	C(30.0)	E(62.1)	D(41.9)	C(31.8)	F(127)	D(51.6)
I-81 SB Ramps	F(86.9)	F(104)	C(25.2)	F(97.2)	F(182)	D(36.8)
I-81 NB Ramps	C(30.3)	F(142)	C(25.3)	D(54.8)	F(172)	C(26.2)
Lakeshore Road Spur	B(11.0)	C(30.6)	A(8.4)	B(10.9)	C(31.1)	A(8.3)
New County Plaza	B(11.6)	B(10.5)	A(8.2)	B(11.8)	B(10.7)	A(8.2)
CNS High School	B(16.8)	C(20.4)	A(6.6)	B(17.3)	C(26.2)	A(6.9)
Thompson Road	B(17.6)	E(76.2)	E(62.4)	F(204)	F(81.0)	E(65.2)

Table 8
Level of Service Summary - Phase VI

Intersection With NYS Route 31	2027 No Build			2027 Build		
	AM	PM	Sat.	AM	PM	Sat.
County Route 57	C(27.0)	F(86.2)	E(55.6)	C(27.8)	F(96.8)	E(56.8)
Target Driveway	B(12.1)	E(58.9)	E(63.8)	B(12.1)	E(69.9)	E(68.1)
Dell Center Drive	B(11.8)	B(14.0)	C(30.4)	B(11.8)	B(14.9)	C(34.1)
Carling Road	A(9.4)	E(62.9)	D(46.6)	A(9.4)	E(75.4)	D(51.2)
Wegmans East	A(5.2)	D(52.6)	C(25.8)	A(5.1)	E(64.2)	C(26.8)
Soule Road/I-481 SB	B(18.6)	F(88.1)	F(184)	B(19.4)	F(98.9)	F(186)
I-481 NB	A(9.1)	F(90.0)	C(24.9)	A(9.0)	F(109)	C(27.1)
Marketfair Mall	A(1.6)	D(36.8)	C(29.7)	A(1.6)	D(41.0)	C(32.8)
Great Northern Mall West	B(15.0)	F(84.3)	E(68.7)	B(15.4)	F(112)	E(78.5)
Great Northern Mall East	A(9.7)	B(12.8)	B(14.1)	A(9.9)	B(14.0)	B(14.6)
Morgan Road	D(40.4)	F(102)	E(77.7)	D(42.5)	F(135)	F(87.2)
Henry Clay Boulevard	D(51.2)	F(343)	F(233)	F(97.5)	F(498)	F(346)
Caughdenoy Road	F(47.7)	F(999)	F(999)	B(19.3)	F(122)	F(113)
US Route 11	C(31.5)	E(66.9)	D(44.3)	C(33.1)	F(172)	E(64.2)
I-81 SB Ramps	F(97.4)	F(116)	C(28.4)	F(113)	F(236)	D(54.1)
I-81 NB Ramps	C(33.7)	F(160)	C(26.8)	F(83.6)	F(204)	C(28.9)
Lakeshore Road Spur	B(11.2)	C(33.8)	A(8.6)	B(11.2)	C(34.5)	A(8.7)
New County Plaza	B(12.1)	B(11.0)	A(8.4)	B(12.2)	B(11.3)	A(8.4)
CNS High School	B(17.9)	C(23.0)	A(7.0)	B(18.6)	C(34.1)	A(7.3)
Thompson Road	B(18.5)	F(83.8)	D(48.0)	B(18.9)	F(92.3)	D(53.4)

4.1 Existing Condition

The operating conditions for the study area intersections were analyzed using the existing roadway geometry, existing traffic volumes and traffic signal timing, phasing and coordination provided by the New York State Department of Transportation. All study area intersections currently operate at an overall level of service of D or better during the weekday AM and PM peak hours. There are a number of individual movements that currently operate at LOS F during the weekday PM peak hour. They include:

- Eastbound left turn at County Route 57
- Southbound left turn at County Route 57
- Northbound left turn at Soule Road
- Northbound left turn at Morgan Road
- Northbound movements at Henry Clay Boulevard
- Northbound right turn at I-81 Northbound Ramps

Currently the majority of movements at the study area intersections operate at LOS D or better during the weekday AM peak hour.

4.2 2014 Future No Build and Build Conditions

Under 2014 Future No Build conditions, all study area intersections are projected to continue to operate at overall acceptable levels of service (LOS E or better) with the exception of the following intersections:

- Henry Clay Boulevard – PM peak hour
- Interstate 81 Northbound Ramps – PM peak hour
- Caughdenoy Road – AM & PM peak hours

In addition to the movements that currently operate at LOS F (which are identified in **Section 4.1** above), the following movements are projected to worsen to LOS F under 2014 No Build conditions:

- Westbound left turn at County Route 57 – PM peak hour
- Eastbound through movement at Soule Road – PM peak hour
- Westbound through movement at I-481 northbound ramps – PM peak hour
- Westbound through movement at Great Northern Mall West – PM peak hour
- Westbound thru/right movement at Morgan Road – PM peak hour
- Eastbound movements at Henry Clay Boulevard – PM peak hour
- Westbound movements at Henry Clay Boulevard – PM peak hour
- Eastbound through/right movement at I-81 Southbound Ramps – AM & PM peak hours
- Westbound thru/right at Interstate 81 northbound ramps – PM peak hour
- Westbound left turn at Thompson Road – PM peak hour
- Northbound left/through movement at Thompson Road – PM peak hour

Under 2014 Build conditions, all intersections that are projected to operate at LOS F under 2014 No Build conditions will continue to operate at LOS F under 2014 Build conditions. All study area intersections are projected to operate at the same levels of service as they do under 2014 No Build conditions.

There are no movements that are projected to degrade to unacceptable levels (LOS F) when compared to 2014 No Build conditions.

All movements at the reconstructed intersection of Caughdenoy Road are projected to operate at LOS D or better during both peak hours. The movements at the proposed site driveways onto Caughdenoy Road are projected to operate at LOS B or better during both peak hours.

4.3 2016 Future No Build and Build Conditions

Under 2016 Future No Build conditions, all study area intersections are projected to continue to operate at overall acceptable levels of service with the exception of the intersections identified under 2014 No Build conditions. All other intersections are project to operate at LOS E or better during the weekday AM and PM peak hours.

In addition to the movements that are projected to operate at LOS F during the 2014 No Build conditions, the following movements are projected to worsen to LOS F under 2016 No Build conditions:

- Eastbound left turn at Morgan Road – PM peak hour

All other movements are projected to operate at LOS E or better during the weekday AM and PM peak hours under 2016 No Build conditions.

Under 2016 Build conditions, all intersections that are projected to operate at the same overall level of service as they do when compared to 2016 No Build conditions with the exception of the following intersections:

- NYS Route 481 Northbound Ramps – LOS D to LOS E during PM peak hour
- Morgan Road – LOS E to LOS F during PM peak hour
- I-81 Southbound Ramps – LOS E to LOS F during PM peak hour

All other intersections are projected to operate at LOS E or better during the AM and PM peak hours.

There are no movements that are projected to degrade to unacceptable levels (LOS F) when compared to 2016 No Build conditions.

All movements at the reconstructed intersection of Caughdenoy Road are projected to operate at LOS D or better during both peak hours. The movements at the proposed site driveways onto Caughdenoy Road are projected to operate at LOS B or better during both peak hours.

4.4 2018 Future No Build and Build Conditions

Under 2018 Future No Build conditions, all study area intersections are projected to continue to operate at overall acceptable levels of service with the exception of those intersections identified under 2014 and 2016 No Build conditions and the additional following intersections:

- Morgan Road – PM peak hour
- Interstate 81 Southbound Ramps – PM peak hour

All other intersections are projected to operate at LOS E or better during the weekday AM and PM peak hours.

In addition to the movements that are projected to operate at LOS F during the 2014 and 2016 No Build conditions for weekday AM and PM peak hours, there are no other movements that are projected to worsen to LOS F under 2018 No Build conditions. All other movements are projected to operate at LOS E or better during both the weekday AM and PM peak hours under 2018 No Build conditions.

Under 2018 Build conditions, all intersections are projected to operate at the same overall level of service as they do under 2018 No Build conditions with the exception of the following:

- Henry Clay Boulevard – LOS C to LOS D during AM peak hour
- US Route 11 – LOS D to LOS E during PM peak hour

In addition the following movement is anticipated to degrade to an unacceptable level of service when compared to 2018 No Build conditions:

- Morgan Road southbound through/right – LOS E to LOS F during AM peak hour

There are no other movements that are projected to degrade to unacceptable levels (LOS F) when compared to 2018 No Build conditions.

All movements at the reconstructed intersection of Caughdenoy Road are projected to operate at LOS D or better during both peak hours. The movements at the proposed site driveways onto Caughdenoy Road are projected to operate at LOS B or better during both peak hours.

4.5 2021 Future No Build and Build Conditions

Under 2021 Future No Build conditions, all study area intersections are projected to continue to operate at overall acceptable levels of service with the exception of those intersections identified under 2014, 2016 and 2018 No Build conditions. No additional intersections are projected to worsen to LOS F.

In addition to the movements that are projected to operate at LOS F during the 2014, 2016 and 2018 No Build conditions for weekday AM or PM peak hour, the following movement is projected to worsen to LOS F under 2021 No Build conditions:

- Southbound through/right at Target Driveway – PM peak hour

All other movements are projected to operate at LOS E or better during the weekday AM and PM peak hours under 2021 No Build conditions.

Under 2021 Build conditions, all intersections are projected to operate at the same overall level of service as they do under 2021 No Build conditions with the exception of the following:

- State Route 481 Northbound Ramps – LOS E to LOS F during PM peak hour
- Great Northern Mall West – LOS E to LOS F during PM peak hour
- Morgan Road – LOS C to LOS D during AM peak hour
- US Route 11 – LOS D to LOS F during PM peak hour
- Interstate 81 Southbound Ramps – LOS E to LOS F during AM peak hour
- CNS High School – LOS B to LOS C during PM peak hour

In addition to the following movements are anticipated to degrade to an unacceptable level of service (LOS F) when compared to 2021 No Build conditions:

- Westbound through at Carling Road – LOS E to LOS F during PM peak hour
- Westbound movements at Henry Clay Boulevard – LOS E to LOS F during AM peak hour
- Eastbound through at Interstate 81 Northbound Ramps – LOS E to LOS F during PM peak hour
- Northbound left at Interstate 81 Northbound Ramps - LOS D to LOS F during PM peak hour

There are no other movements that are projected to worsen to an unacceptable level of service when compared to 2021 No Build conditions.

All movements at the reconstructed intersection of Caughdenoy Road are projected to operate at LOS D or better during both peak hours. The movements at the proposed site driveways onto Caughdenoy Road are projected to operate at LOS B or better during both peak hours.

4.7 2024 Future No Build and Build Conditions

As part of the 2024 analysis, it was also requested to perform an analysis of the Saturday peak hour.

Under 2024 Future No Build conditions, all study area intersections are projected to continue to operate at overall acceptable levels of service with the exception of those intersections identified under 2014, 2016, 2018 and 2021 No Build conditions and the following intersections:

- Soule Road – Saturday peak hour
- NYS Route 481 Northbound Ramps – PM peak hour
- Henry Clay Boulevard – Saturday peak hour
- Interstate 81 Southbound Ramps – AM peak hour

In addition to the movements that are projected to operate at LOS F during the 2014, 2016, 2018 and 2021 No Build conditions for weekday AM, PM and Saturday peak hours, the following movements are projected to operate at LOS F under 2024 No Build conditions:

- Westbound left at Route 57 – Saturday peak hour
- Southbound left at Route 57 – Saturday peak hour
- Westbound through/right at Target Driveway – PM and Saturday peak hours
- Westbound through at Carling Road – PM peak hour
- Northbound left at Soule Road – Saturday peak hour
- Northbound right at Soule Road – Saturday peak hour
- Southbound right at Soule Road – Saturday peak hour
- Eastbound through at NYS Route 481 Northbound Ramps – PM peak hour
- Westbound through at Great Northern Mall West – Saturday peak hour
- Northbound left/through at Great Northern Mall East – Saturday peak hour
- Westbound through/right at Morgan Road – Saturday peak hour
- Northbound left at Morgan Road – Saturday peak hour
- Eastbound, Westbound and Northbound movements at Henry Clay Boulevard – Saturday peak hour
- Northbound left/through at Thompson Road – Saturday peak hour
- Southbound movement at Thompson Road – Saturday peak hour

All other movements are projected to operate at LOS E or better during the weekday AM, PM and Saturday peak hours under 2024 No Build conditions.

Under 2024 Build conditions, all intersections are projected to operate at the same overall level of service as they do under 2024 No Build conditions with the exception of the following:

- Route 57 – LOS E to LOS F during PM peak hour
- Target Driveway – LOS D to LOS E during PM Peak hour
- Soule Road – LOS E to LOS F during PM peak hour
- Great Northern Mall West – LOS E to LOS F during PM peak hour
- Henry Clay Boulevard – LOS D to LOS E during AM peak hour
- US Route 11 – LOS E to LOS F during PM peak hour
- Interstate 81 Southbound Ramps – LOS C to LOS D during Saturday peak hour

- Thompson Road – LOS B to LOS F during AM peak hour and LOS E to LOS F during PM peak hour.

In addition, the following movements are anticipated to degrade to level of service F when compared to 2024 No Build conditions:

- Eastbound through/right at Route 57 – LOS E to LOS F during PM peak hour
- Westbound through/right at Route 57 – LOS E to LOS F during PM peak hour
- Eastbound left at US Route 11 – LOS E to LOS F during PM peak hour
- Eastbound through/right at US Route 11 – LOS D to LOS F during Saturday peak hour
- Eastbound left at Interstate 81 Northbound Ramps – LOS E to LOS F during Saturday peak hour
- Eastbound through at Interstate 81 Northbound Ramps – LOS E to LOS F during PM peak hour
- Northbound left at Interstate 81Northbound Ramps – LOS D to LOS F during AM peak hour, LOS E to LOS F during PM peak hour
- Eastbound through/right at Thompson Road – LOS B to LOS F during AM peak hour
- Westbound left at Thompson Road – LOS C to LOS F during AM peak hour

There are no other movements that are projected to worsen to an unacceptable level of service when compared to 2024 No Build conditions.

All movements at the reconstructed intersection of Caughdenoy Road are projected to operate at LOS E or better during all three peak hours with the exception of the following:

- Westbound left during Saturday peak hour
- Northbound left during Saturday peak hour
- Northbound through during PM peak hour
- Southbound left during PM peak hour
- Southbound through/right during PM and Saturday peak hours

The movements at the proposed site driveways onto Caughdenoy Road are projected to operate at LOS B or better during both peak hours.

4.8 2027 Future No Build and Build Conditions

As part of the 2027 analysis, it was also requested to perform an analysis of the Saturday peak hour.

Under 2027 Future No Build conditions, all study area intersections are projected to continue to operate at overall acceptable levels of service with the exception of those intersections identified under 2014, 2016, 2018, 2021 and 2024 No Build conditions and the following intersections:

- Route 57 – PM peak hour
- Soule Road – PM peak hour
- Great Northern Mall West – PM peak hour
- Thompson Road – PM peak hour

In addition to the movements that are projected to operate at LOS F during the 2014, 2016, 2018, 2021 and 2024 No Build conditions for weekday AM, PM and Saturday peak hours, the following movements are projected to operate at LOS F under 2027 No Build conditions:

- Eastbound through/right at Route 57 – PM peak hour
- Westbound through/right at Route 57 – PM peak hour
- Westbound through at Wegmans East Driveway – PM peak hour
- Northbound through at Soule Road – PM peak hour
- Westbound left at Thompson Road – Saturday peak hour
- Southbound movement at Thompson Road – PM peak hour

All other movements are projected to operate at LOS E or better during the weekday AM, PM and Saturday peak hours under 2027 No Build conditions.

Under 2027 Build conditions, all intersections are projected to operate at the same overall level of service as they do under 2024 No Build conditions with the exception of the following:

- Wegmans East Driveway – LOS D to LOS E during PM peak hour
- Morgan Road – LOS E to LOS F during Saturday peak hour
- Henry Clay Boulevard – LOS D to LOS F during AM peak hour
- US Route 11 – LOS E to LOS F during PM peak hour, LOS D to LOS E during Saturday peak hour
- Interstate 81 Southbound Ramps – LOS C to LOS D during Saturday peak hour
- Interstate 81 Northbound Ramps – LOS C to LOS F during AM peak hour

In addition, the following movements are anticipated to worsen in level of service when compared to 2027 No Build conditions:

- Westbound through at Carling Road – LOS E to LOS F during Saturday peak hour
- Eastbound through at Morgan Road – LOS D to LOS F during PM peak hour
- Westbound left at Morgan Road – LOS D to LOS F during PM peak hour
- Eastbound left at US Route 11 – LOS E to LOS F during PM peak hour
- Eastbound through/right at US Route 11 – LOS D to LOS F during Saturday peak hour
- Eastbound through/right at Interstate 81 Southbound ramps – LOS D to LOS F during Saturday peak hour

- Southbound right at Interstate 81 Southbound Ramps – LOS B to LOS F during AM peak hour
- Eastbound left at Interstate 81 Northbound Ramps – LOS E to LOS F during PM peak hour
- Northbound left at Interstate 81Northbound Ramps – LOS D to LOS F during AM peak hour, LOS E to LOS F during PM peak hour
- Eastbound through/right at Thompson Road – LOS E to LOS F during Saturday peak hour

All other movements are projected to operate at the same level of service as they do under 2024 No Build conditions.

All movements at the reconstructed intersection of Caughdenoy Road are projected to operate at LOS E or better during all three peak hours with the exception of the following:

- Eastbound left during PM peak hour
- Eastbound through during PM and Saturday peak hours
- Westbound left during Saturday peak hour
- Westbound through during PM peak hour
- Northbound left during PM and Saturday peak hour
- Northbound through during PM and Saturday peak hour
- Northbound right during PM peak hour
- Southbound left during PM peak hour
- Southbound through/right during PM and Saturday peak hours

The movements at the proposed site driveways onto Caughdenoy Road are projected to operate at LOS B or better during both peak hours.

4.7 Mitigation

The only initial mitigation that is proposed for this project is reconstruction of the intersection of NYS Route 31 at Caughdenoy Road and widening of Caughdenoy Road. The intersection would be widened to provide exclusive left turn lanes on all approaches and an exclusive westbound right turn lane. In addition, eastbound and north bound right turn lanes would also be needed, but these improvements are necessary based on the background growth and other development that has already been identified and not due to the White Pine Commerce Park. The eastbound and northbound right turn lanes would not be constructed initially and would be the responsibility of the developers associated with the background development. As discussed in **Section 3.1**, the background development included with this study has the trip generation equivalent or more than an additional White Pine Commerce Park.

By 2024 these improvements will be inadequate to accommodate the projected traffic that will be generated by the combination of the background development and the White Pine Commerce Park during the weekday PM peak hour. Since this is 12 years in the future and the amount and type of background development is unknown, it is recommended that this intersection be re-evaluated when, and if, the complete build out of the background development and the White Pine Commerce Park occurs. In addition, a right turn in only from NYS Route 31 should be considered. This has the effect of reducing the number of trips traveling through the Caughdenoy Road intersection.

Caughdenoy Road would also be reconstructed to provide for a three lane section with with exclusive left and right turn lanes at each of the driveways and separate left and right turn lanes exiting the driveways. This reconstruction would occur between NYS Route 31 and the northern end of the site. Based on the analysis, these driveway configurations will be able to accommodate the projected full build out of the White Pine Commerce Park.

The following discusses the additional mitigation that may be required. Again, it should be clearly stated that this mitigation is based on development within the White Pine Commerce Park and additional background development that is the equivalent or more than full build out of the White Pine Commerce Park. If this background development is delayed or does not occur, the mitigation discussed below may not be necessary. The mitigation discussed below is based upon the impacts of the additional traffic due to the White Pine Commerce Park. There are a number of intersections/movements that are projected to operate at LOS F under future No Build conditions and the improvements required to improve the operations at these intersections will need to be completed by others.

For Year 2014 Build conditions, no other improvements are required to mitigate the impacts of the additional traffic due to the White Pine Commerce Park.

For Year 2016 Build conditions, the only other improvement that is required to mitigate the impacts of the additional traffic due to the White Pine Commerce Park would be minor signal timing changes at the intersections and/or movements that are projected to degrade to LOS F under 2016 Build conditions. These signal timing changes would improve operations at these intersections to LOS E or better.

For Year 2018 Build conditions, the only other improvement that is required to mitigate the impacts of the additional traffic due to the White Pine Commerce Park would be minor signal timing changes at the intersections and/or movements that are projected to degrade to LOS F under 2018 Build conditions. These signal timing changes would improve operations at these intersections to LOS E or better.

For Year 2021 Build conditions, the improvements that are required to mitigate the impacts of the additional traffic due to the White Pine Commerce Park would be minor signal timing changes at the intersections and/or movements that are projected to degrade to LOS F under 2021 Build conditions, an eastbound right turn lane at the Interstate 81 Southbound Ramps intersection and restripe the Interstate 81 Northbound Ramps northbound through lane to a left/through/right lane. These changes would improve operations at these intersections to LOS E or better.

Mitigation for 2024 and 2027 has been identified in the following paragraphs however these mitigation measures are over 10 years into the future and any identified mitigation is purely speculative at this time especially considering the uncertainty of the background development. It is recommended that if and when the development of 1.5 and 2.0 million square feet of White Pine Commerce Park is contemplated, these mitigation measures be revisited to determine if they are appropriate for the traffic traveling through the NYS Route 31 corridor at that time.

For Year 2024 Build conditions, in addition to the improvements that were identified for 2021 Build conditions, the improvements that are required to mitigate the impacts of the additional traffic due to the White Pine Commerce Park would be minor signal timing changes at the intersections and/or movements that are projected to degrade to LOS F under 2024 Build conditions, and an additional eastbound right turn lane at the Soule Road intersection. These changes would improve operations at these intersections to LOS E or better.

For Year 2027 Build conditions, in addition to the improvements that were identified for 2021 and 2024 Build conditions, the improvements that are required to mitigate the impacts of the additional traffic due to the White Pine Commerce Park would be minor signal timing changes at the intersections and/or movements that are projected to degrade to LOS F under 2024 Build conditions, and an additional westbound left turn lane at the US Route 11 intersection. These changes would improve operations at these intersections to LOS E or better.

In addition to the above infrastructure improvements, signal timing and coordination parameters should be evaluated as the White Pine Commerce Park and other development progresses to assure that the intersections are operating as efficiently as possible.

5.0 SUMMARY

The preceding analyses evaluated the potential traffic impacts of the White Pine Commerce Park development that will consist of approximately 2 million square feet of industrial park development on the northeast corner of NYS Route 31 and Caughdenoy Road. The following summarizes the results of the analysis.

- The development was analyzed in multiple phases, with access to the site via two driveways on Caughdenoy Road. The phased development analysis considered development at 100,000, 250,000, 500,000 square feet, one million square feet, 1.5 million square feet and 2 million square feet.

- The study area included all the signalized intersections on NYS Route 31 between County Route 57 and Thompson Road and the unsignalized intersection of NYS Route 31 and Caughdenoy Road.

- It is estimated that the proposed Phase I development will generate a total of 59 trips during the weekday AM peak hour and 85 trips during the weekday PM peak hour. Phase II will generate a total of 124 trips during the weekday AM peak hour and 149 trips during the weekday PM peak hour. Phase III will generate a total of 217 trips during the weekday AM peak hour and 257 trips during the weekday PM peak hour. Phase IV development will generate a total of 382 trips during the weekday AM peak hour and 472 trips during the PM peak hour. Phase V will generate a total of 627 trips during the AM peak hour, 857 trips during the PM peak hour and 396 trips during the Saturday peak hour. Phase VI will generate a total of 847 trips during the AM peak hour, 1,242 trips during the PM peak hour and 571 trips during the Saturday peak hour.

- Included in the future traffic volumes is a 1 percent per year background growth of traffic to account for any unknown development and six specific developments that have been identified by the NYSDOT as being needed for inclusion in the background traffic volumes. These background developments are estimated to generate the same or more than full build out of the White Pine Commerce Park.

- Traffic volumes were distributed through the study area using the results of the Syracuse Metropolitan Transportation Council's Regional Travel Demand Model. This model shows that the majority of traffic will be traveling to and from the east towards Interstate 81.

- There are a number of movements and intersections that currently or are projected to operate at LOS E or F during the weekday AM or PM peak hours without the proposed development of the White Pine Commerce Park.

- The capacity analyses indicate that the traffic generated by the proposed development will have the greatest impact at the intersection of NYS Route 31 and Caughdenoy Road. Mititgation proposed for this intersection include exclusive left turn lanes on all approaches, an exclusive westbound right turn lane and signalization of the intersection. Additional improvements at the intersection that are needed at the intersection that are not caused by the White Pine Commerce Park included exclusive eastbound and northbound right turn lanes.

- Improvements proposed for Caughdenoy Road include widening for a three-lane section from NYS Route 31 to the northern end of the White Pine Commerce Park and exclusive right turn lanes at each of the driveways.

- Other mitigation identified to mitigate impacts for Phases I-IV include minor changes to signal timing and a eastbound right turn lane at the Interstate 81 Southbound Ramps intersection.

- Regardless of the White Pine Commerce Park, improvements are needed at the intersections of NYS Route 31 with the NYS Route 481 Ramps, Henry Clay Boulevard, NYS Route 31 between US Route 11 and Interstate 81 Northbound Ramps and Thompson Road. The analyses for these intersections show that under future No Build conditions these areas are anticipated to operate at LOS F.

- Mitigation measures for Phases V and VI (1.5 and 2.0 million square feet of development) have been identified, but should be considered uncertain at this time due to the speculative nature of the background development in the corridor that has been included in this study and length of time it will take to develop full build out of the White Pines Commerce Park.

- All study area intersections should be monitored periodically as the White Pine Commerce Park is developed and other development occurs in the corridor. Traffic signal timing and coordination parameters should be adjusted as needed to assure that the intersections are operating as efficiently as possible.

APPENDIX A
FIGURES

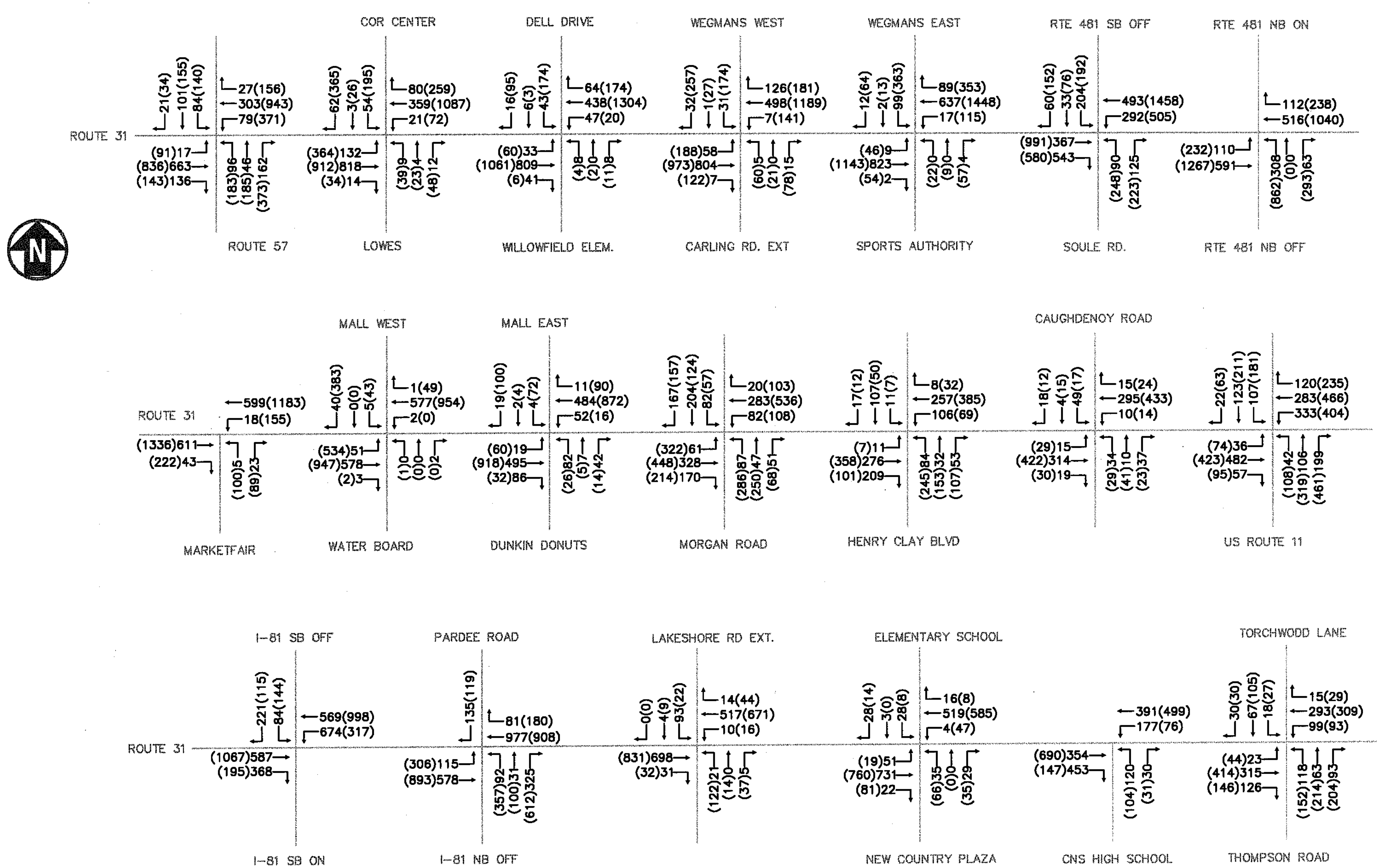


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FIGURE 3
EXISTING TRAFFIC VOLUMES
WHITE PINES COMMERCE PARK
TOWN OF CLAY, NEW YORK

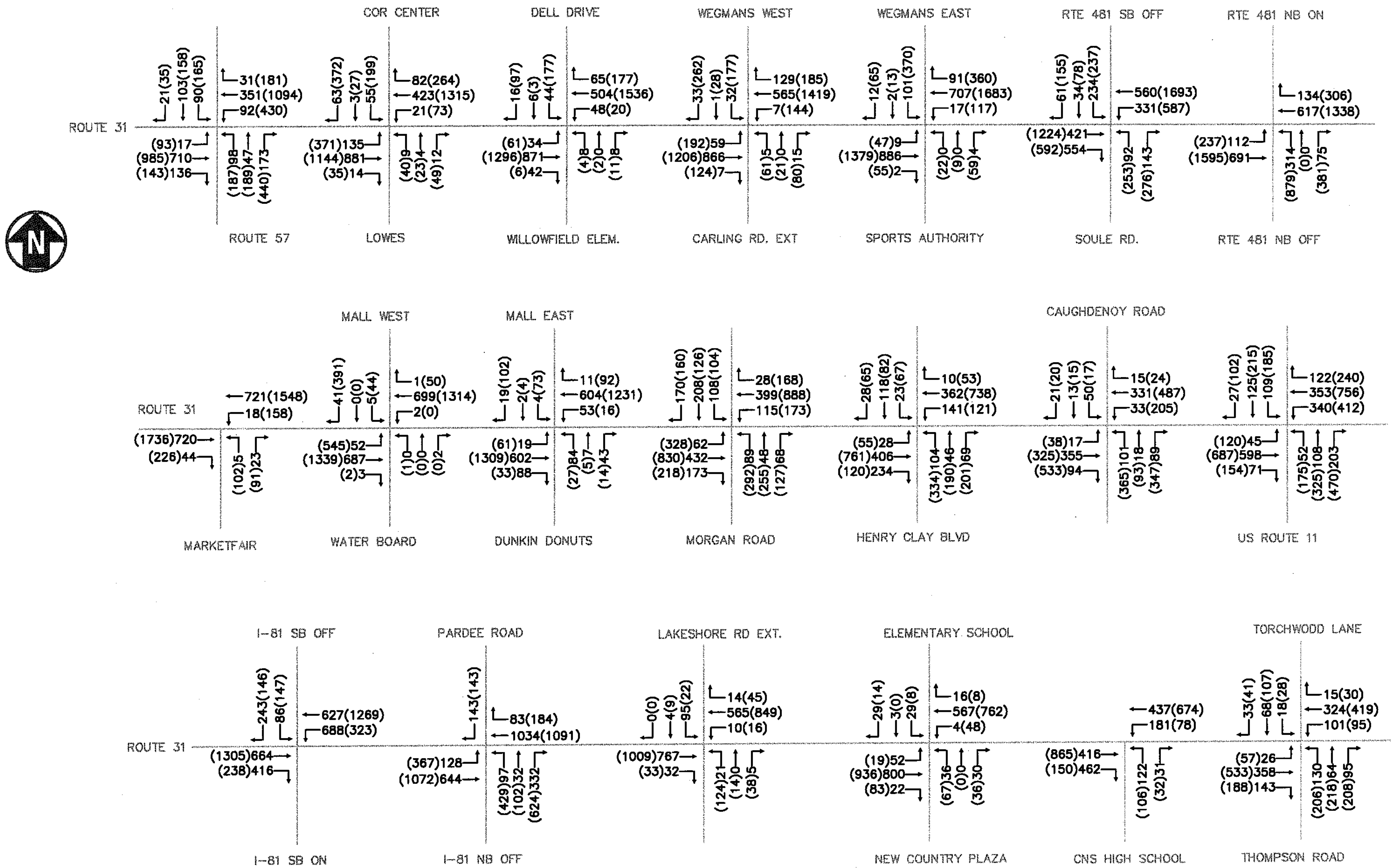

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FIGURE 4
2014 NO BUILD TRAFFIC VOLUMES
WHITE PINES COMMERCE PARK
TOWN OF CLAY, NEW YORK

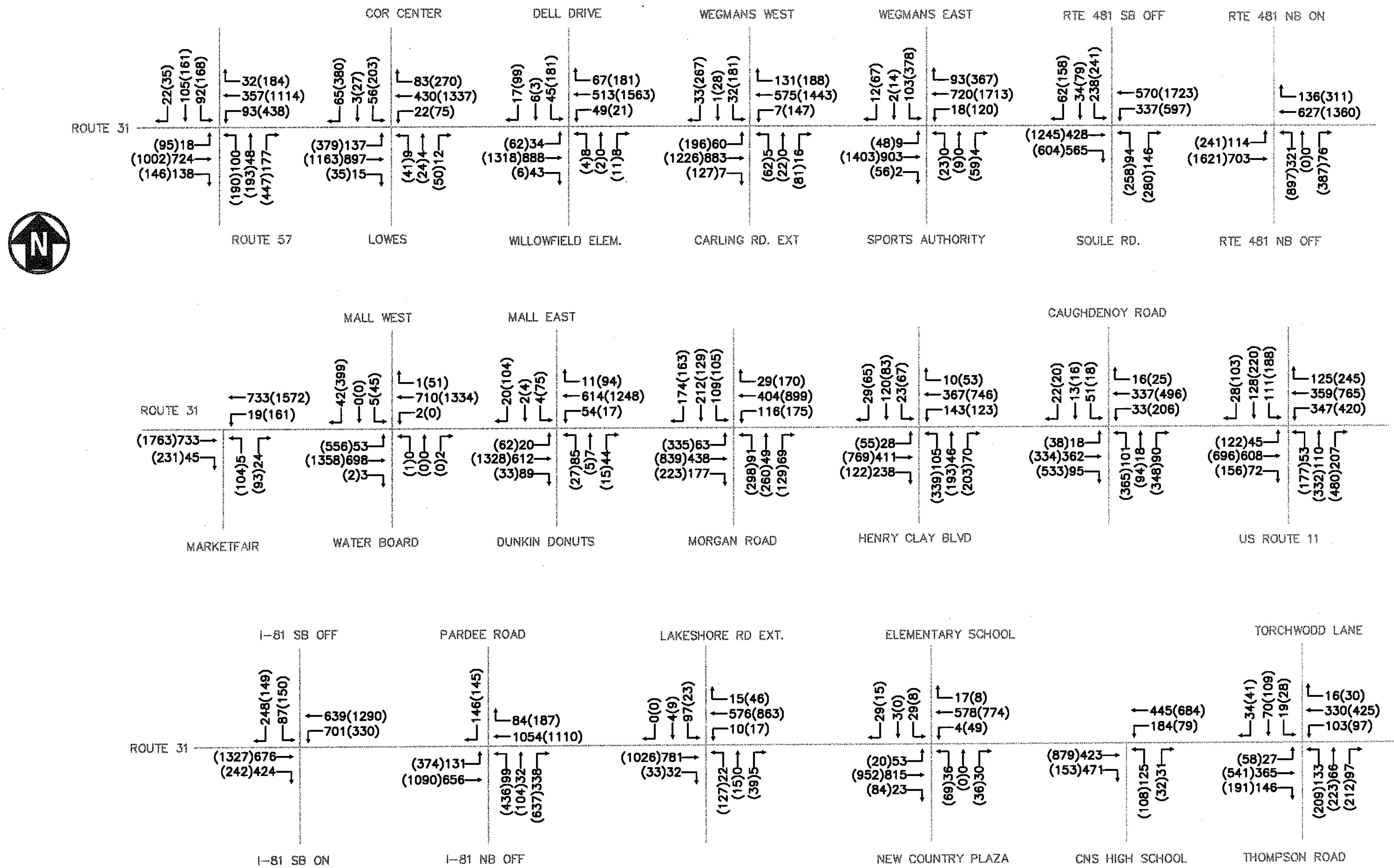

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FIGURE 5

2016 NO BUILD TRAFFIC VOLUMES

WHITE PINES COMMERCE PARK
TOWN OF CLAY, NEW YORK

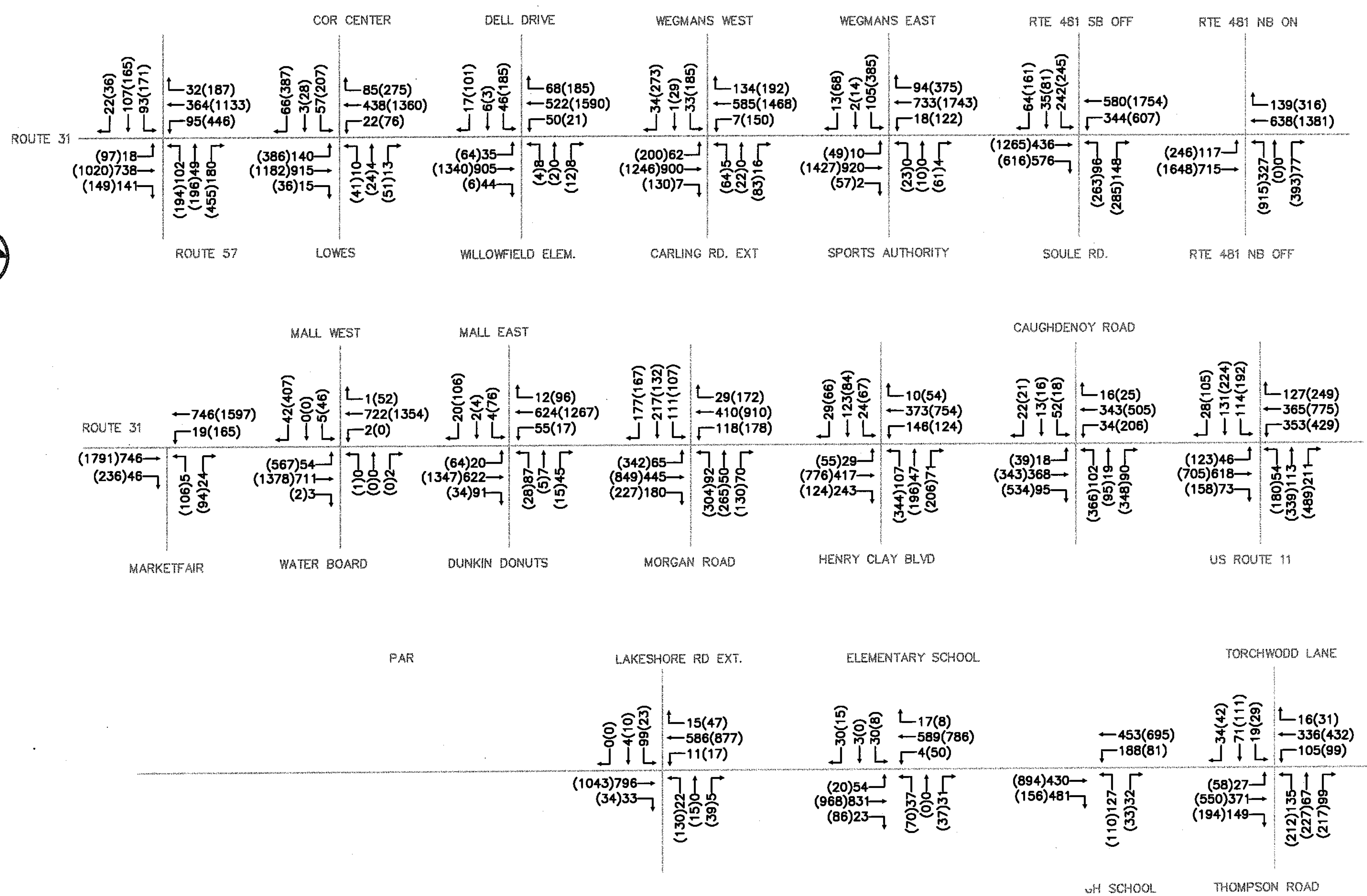

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FIGURE 6

2018 NO BUILD TRAFFIC VOLUMES

WHITE PINES COMMERCE PARK

TOWN OF CLAY, NEW YORK

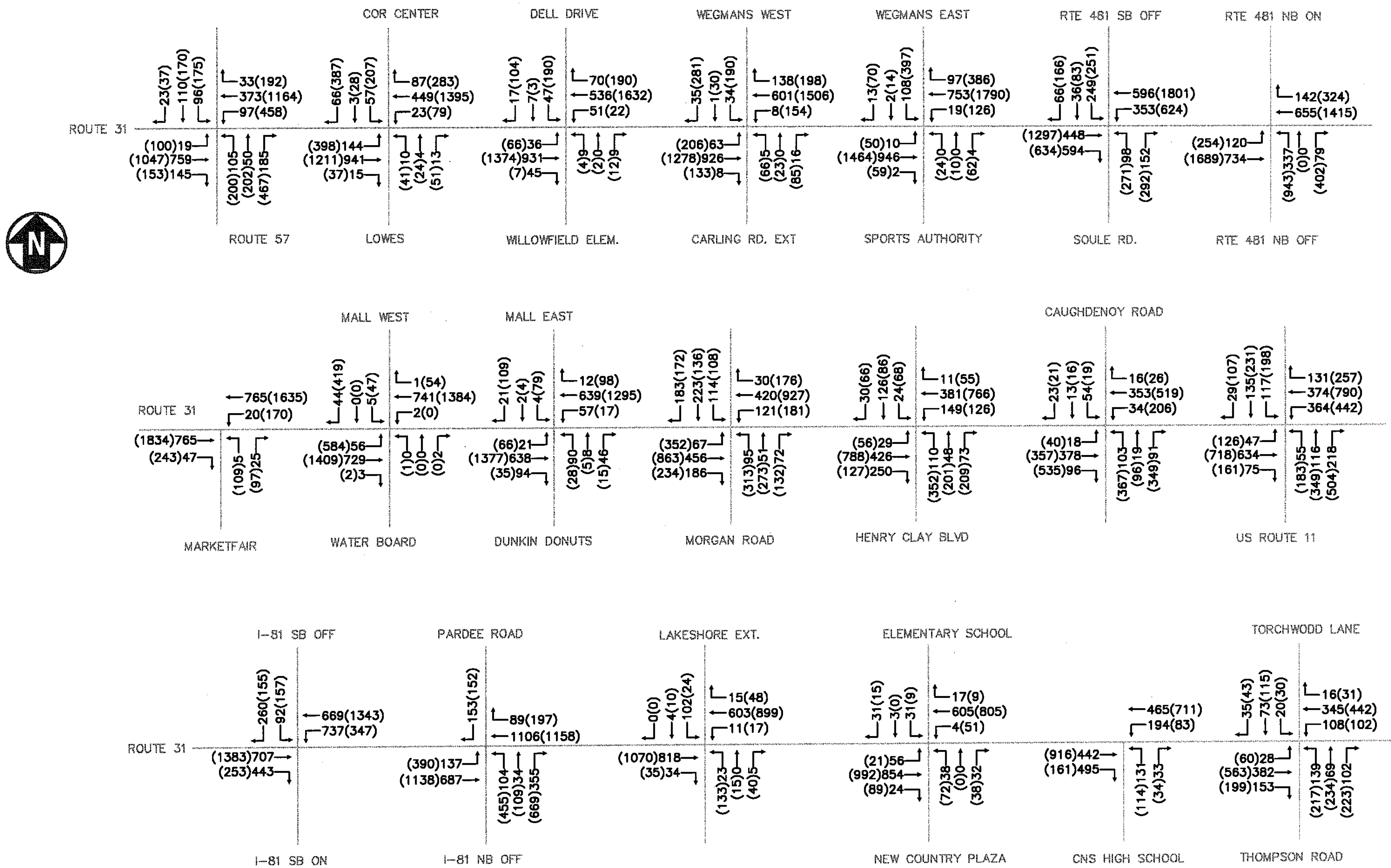

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FIGURE 7
2021 NO BUILD TRAFFIC VOLUMES
WHITE PINES COMMERCE PARK
TOWN OF CLAY, NEW YORK

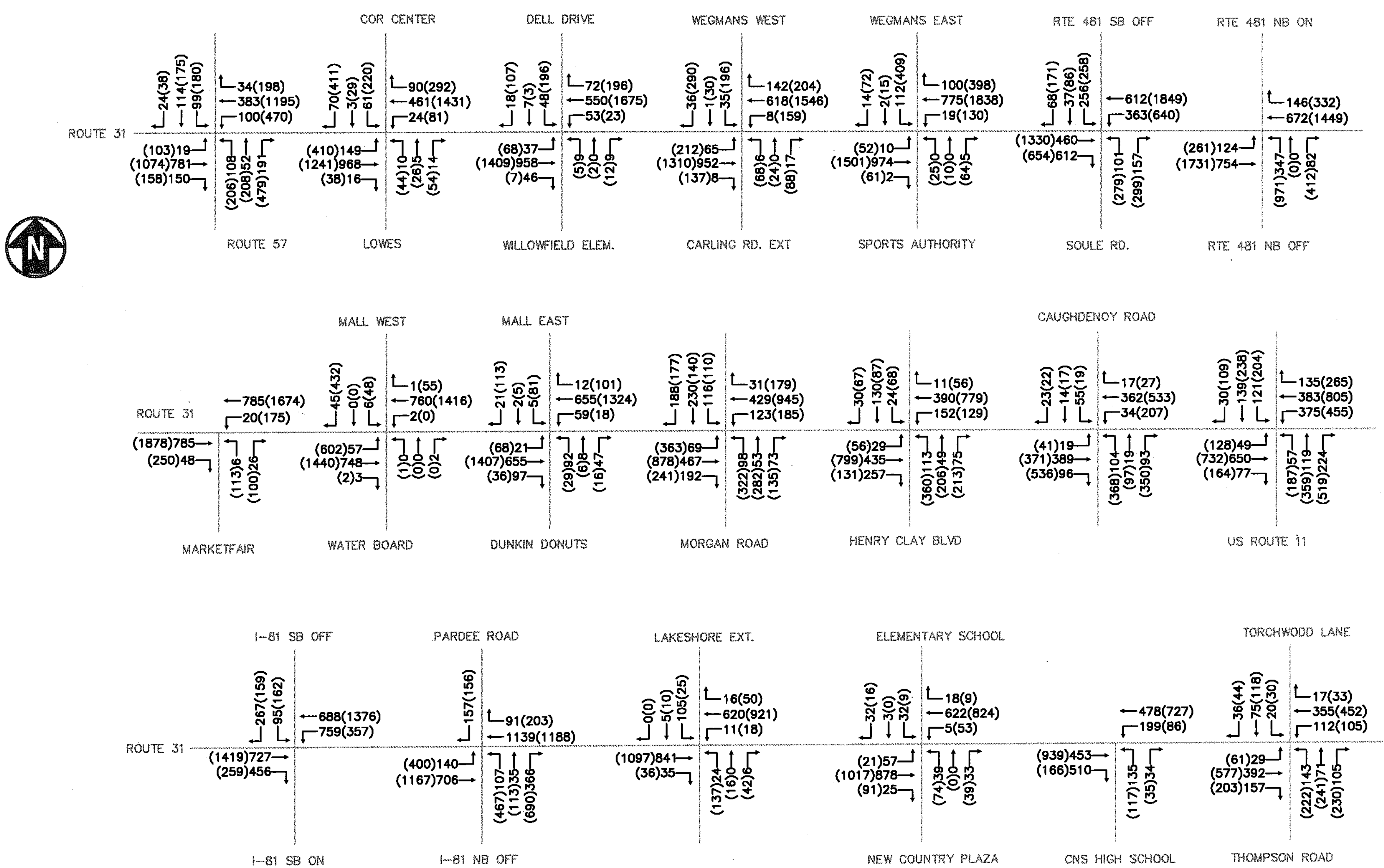

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FIGURE 8

2024 NO BUILD TRAFFIC VOLUMES

WHITE PINES COMMERCE PARK

TOWN OF CLAY, NEW YORK

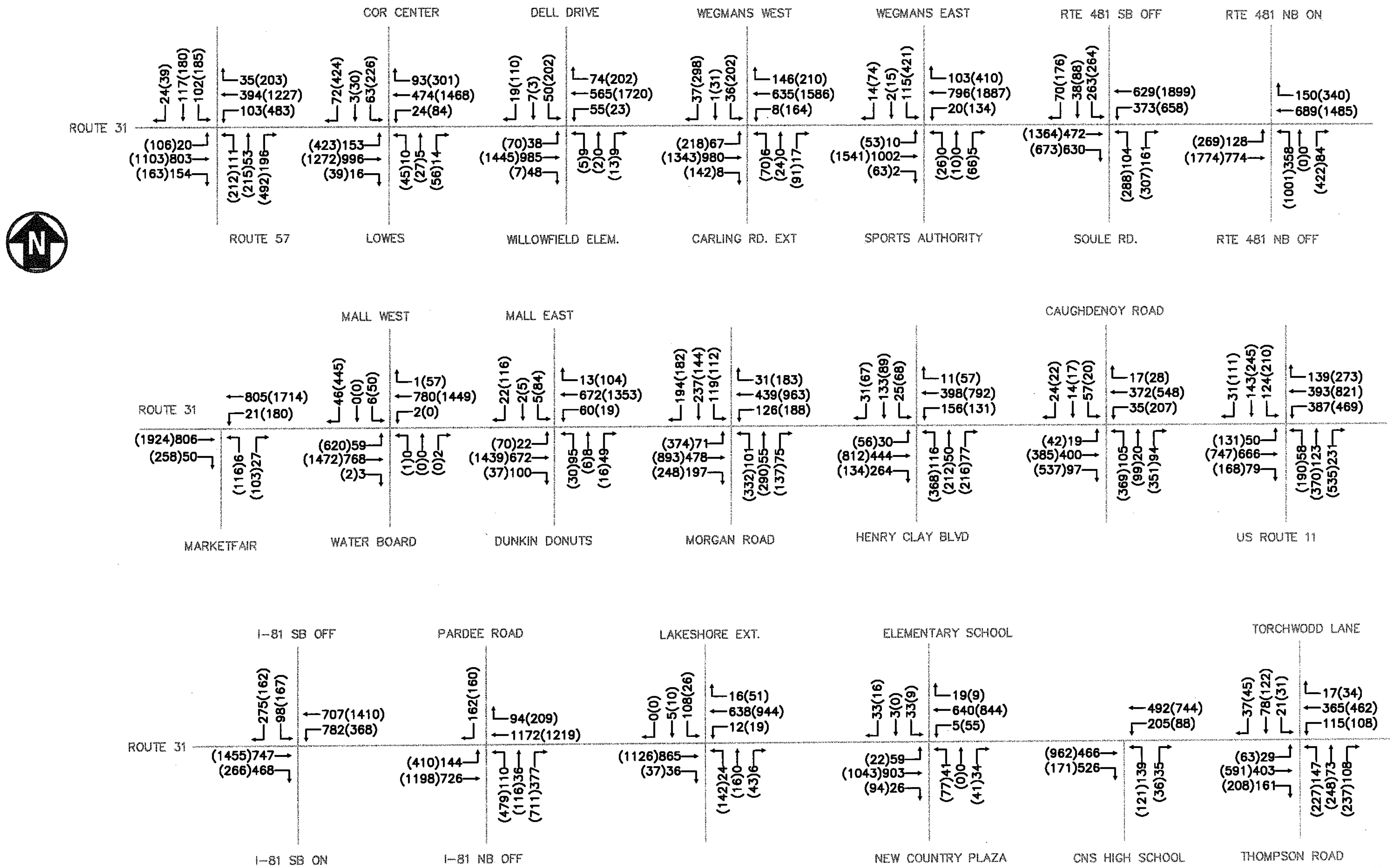

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FIGURE 9
2027 NO BUILD TRAFFIC VOLUMES
WHITE PINES COMMERCE PARK
TOWN OF CLAY, NEW YORK

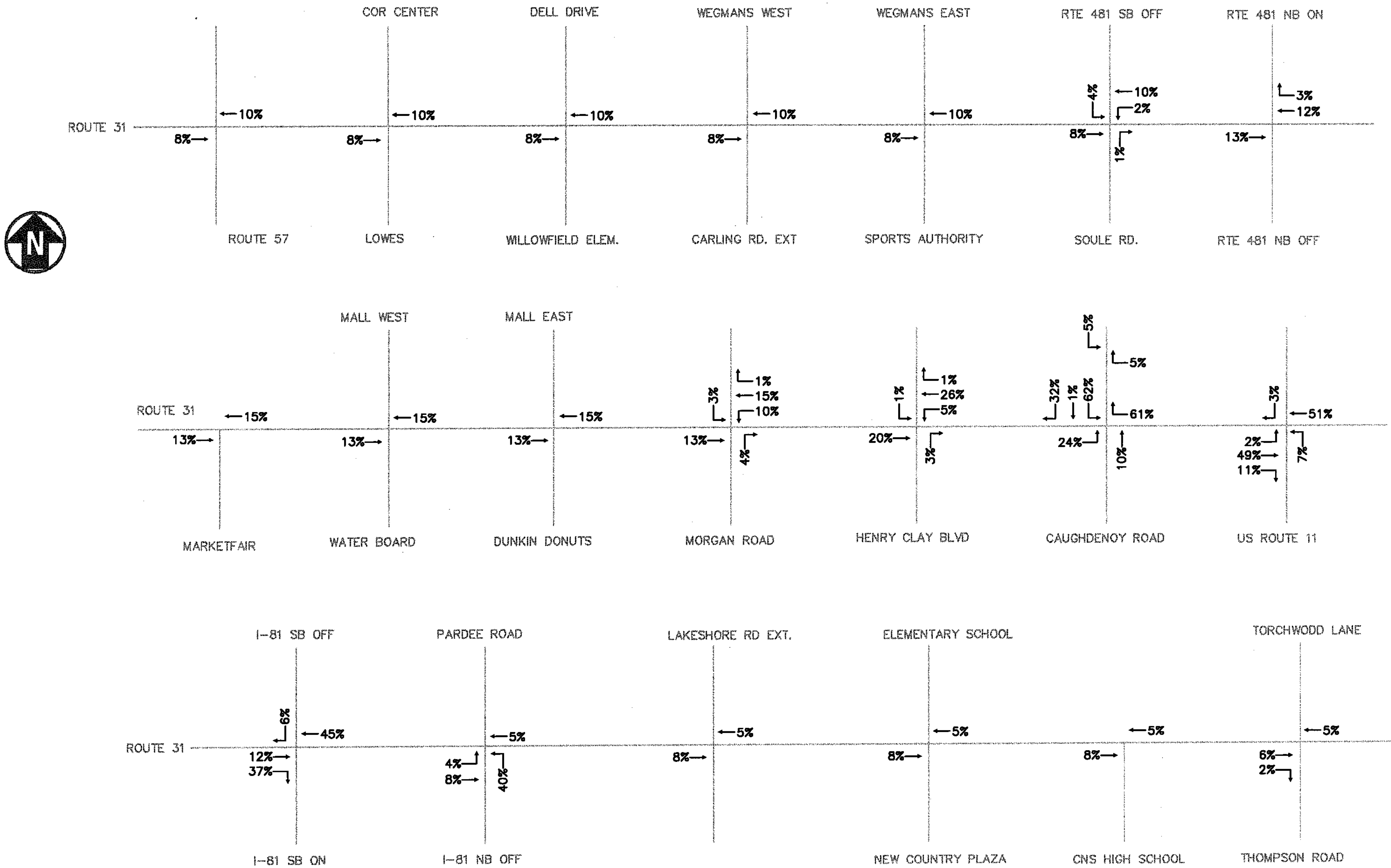

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FIGURE 10
TRIP DISTRIBUTION PCTS.
WHITE PINES COMMERCE PARK
TOWN OF CLAY, NEW YORK

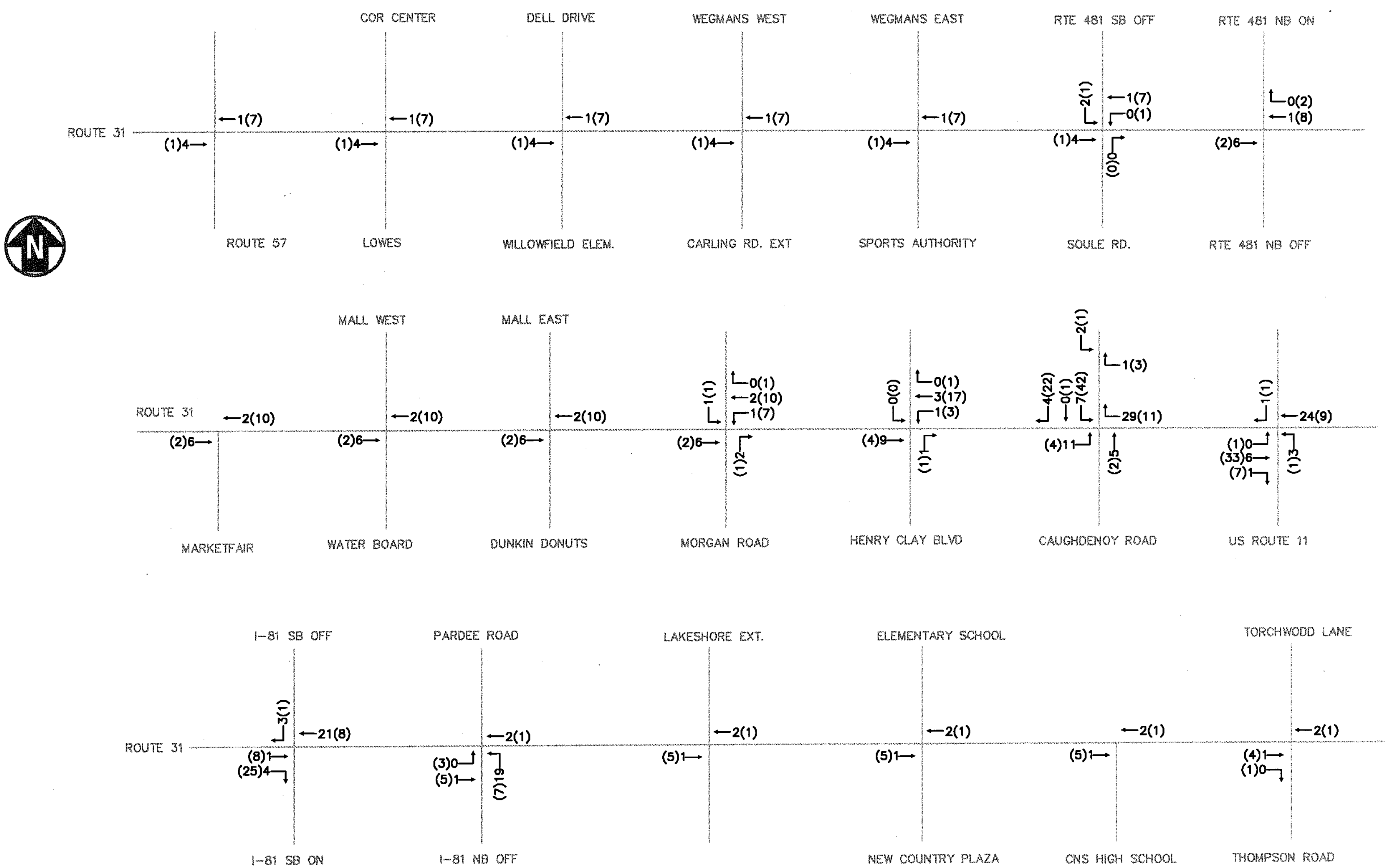

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FIGURE11
2014 DISTRIBUTION VOLUMES
WHITE PINES COMMERCE PARK
TOWN OF CLAY, NEW YORK

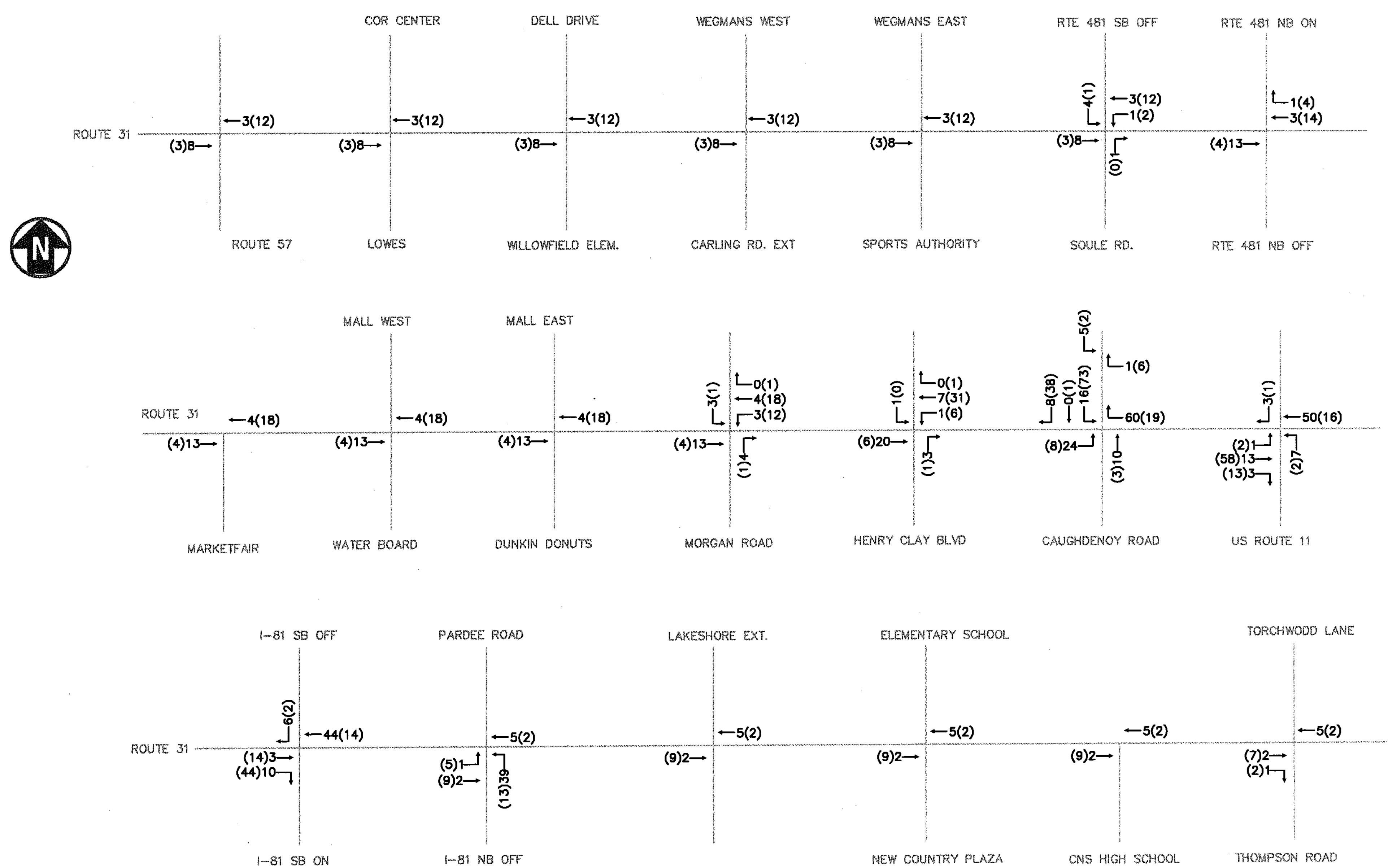

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FIGURE 12
2016 DISTRIBUTION VOLUMES
WHITE PINES COMMERCE PARK
TOWN OF CLAY, NEW YORK

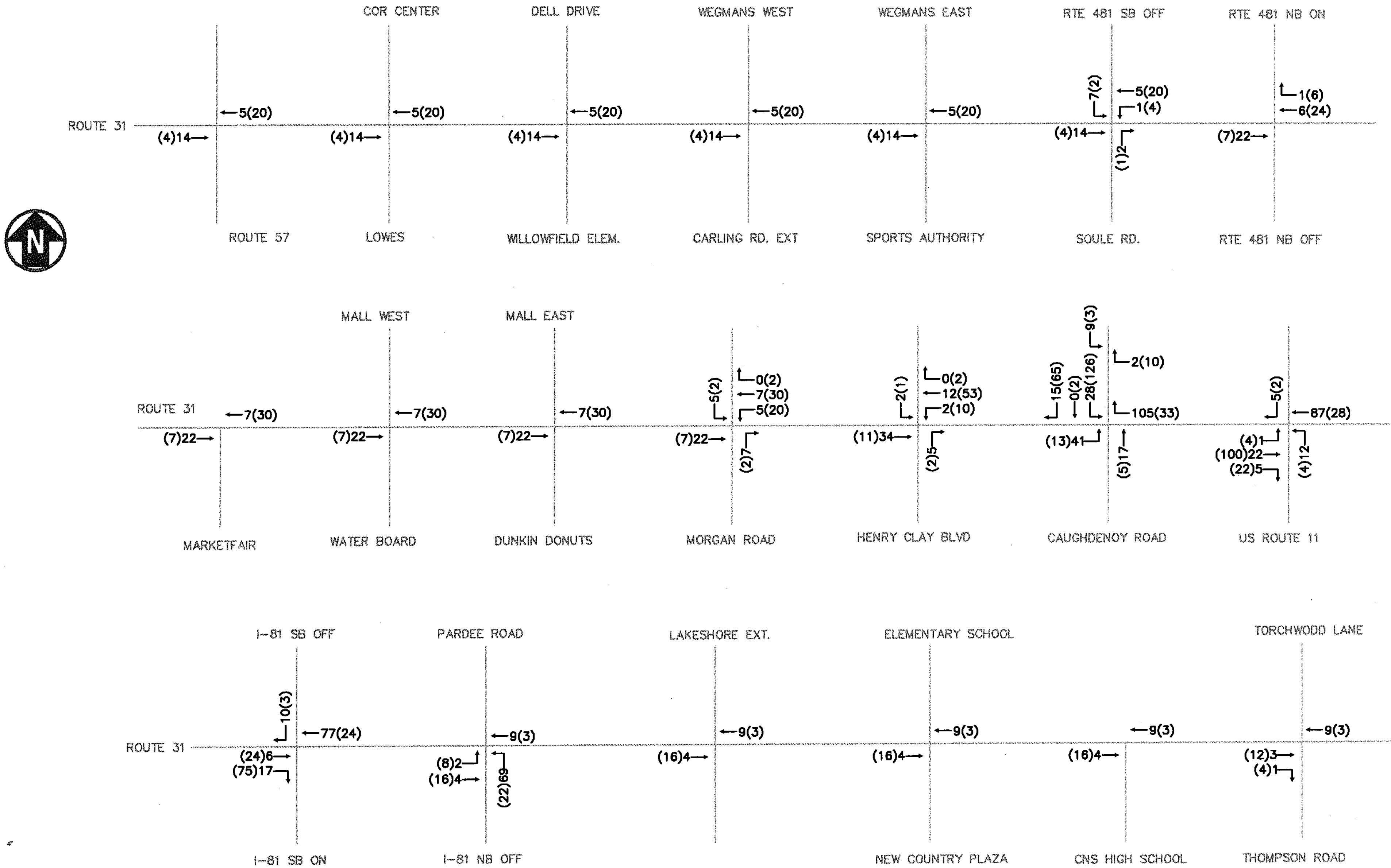

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FIGURE 13
2018 DISTRIBUTION VOLUMES
WHITE PINES COMMERCE PARK
TOWN OF CLAY, NEW YORK

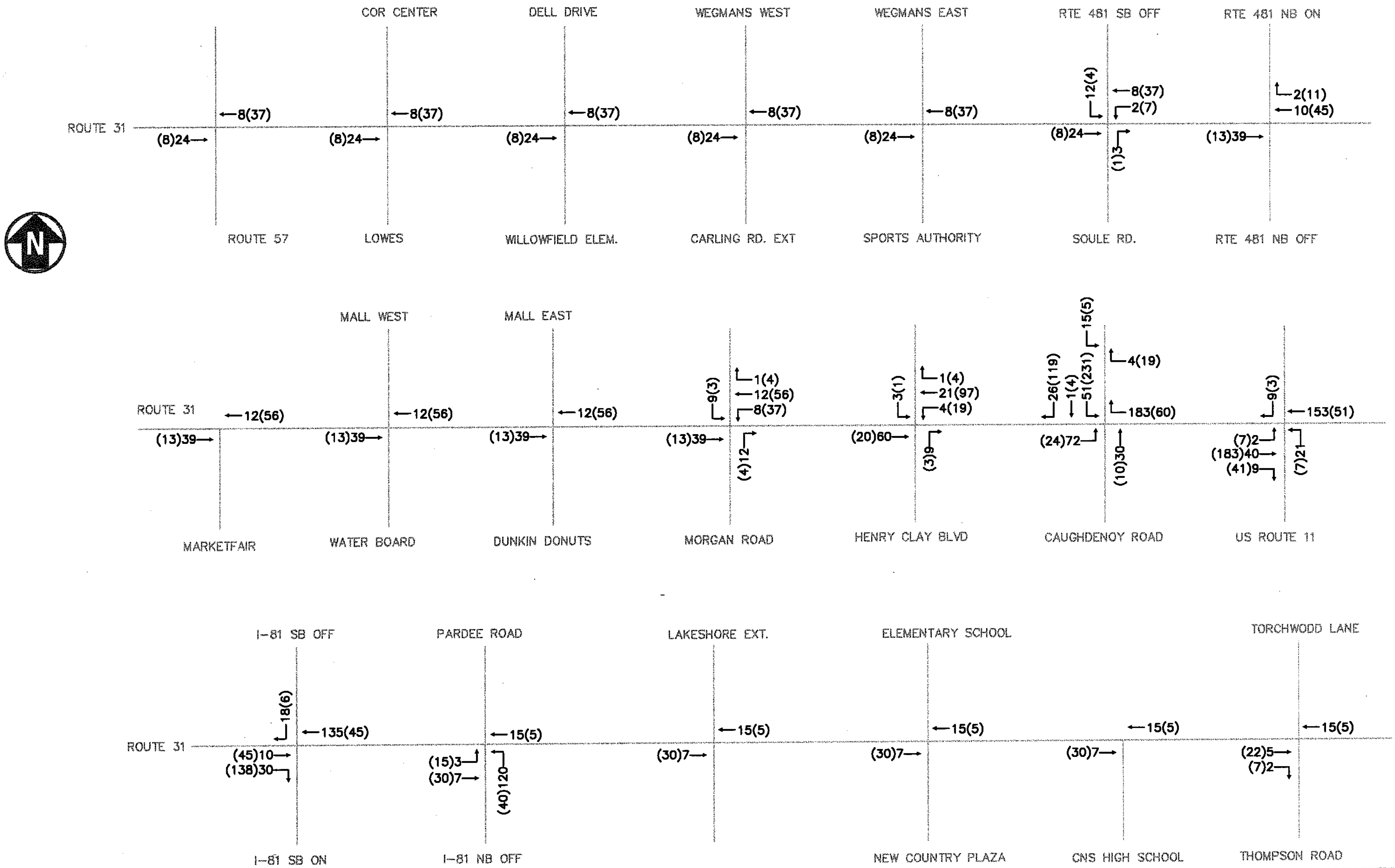

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FIGURE 14
2021 DISTRIBUTION VOLUMES
WHITE PINES COMMERCE PARK
TOWN OF CLAY, NEW YORK

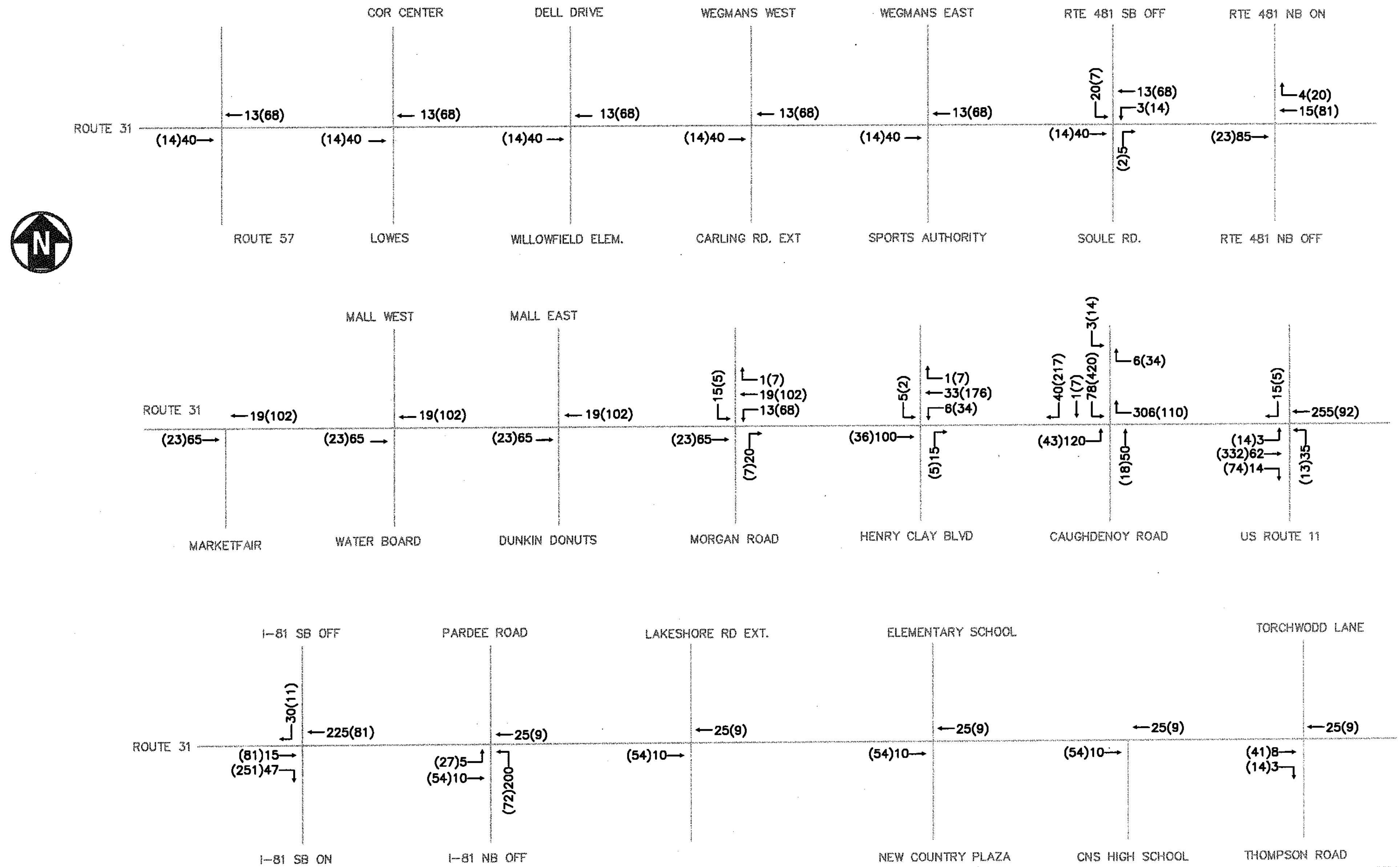

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FIGURE 15
2024 DISTRIBUTION VOLUMES
WHITE PINES COMMERCE PARK
TOWN OF CLAY, NEW YORK

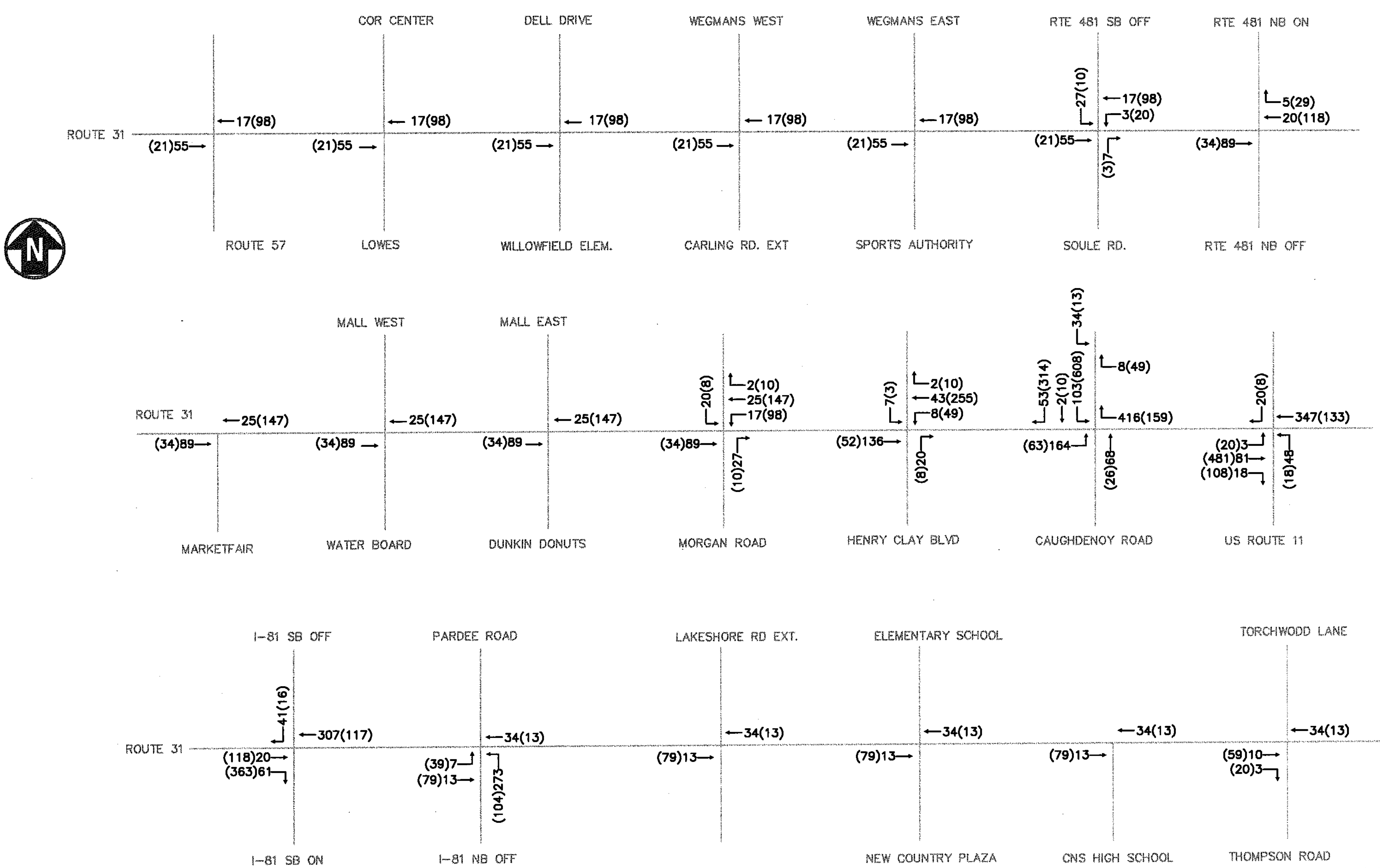

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FIGURE 16
2027 DISTRIBUTION VOLUMES
WHITE PINES COMMERCE PARK
TOWN OF CLAY, NEW YORK

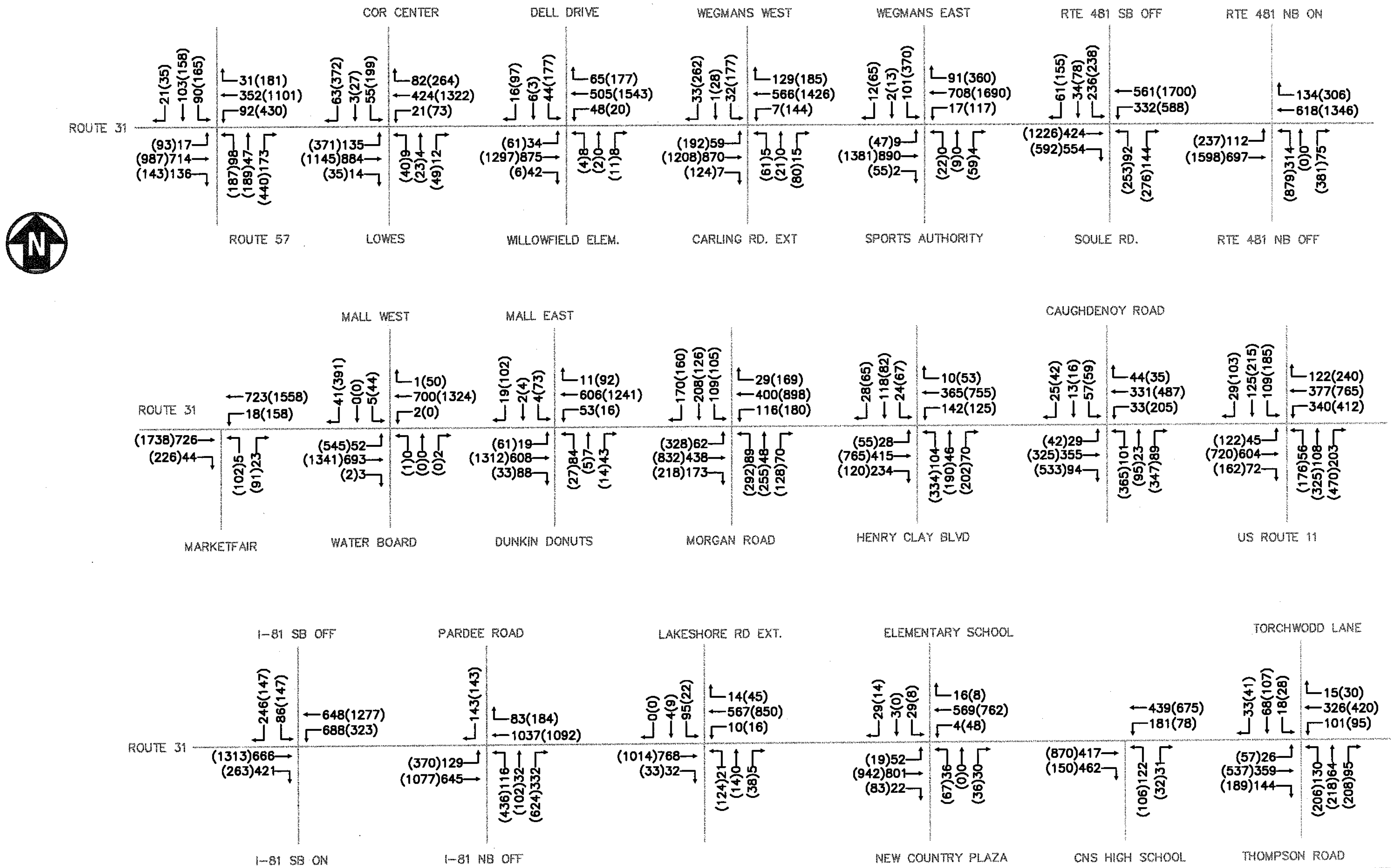

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FIGURE 17
2014 BUILD TRAFFIC VOLUMES
WHITE PINES COMMERCE PARK
TOWN OF CLAY, NEW YORK

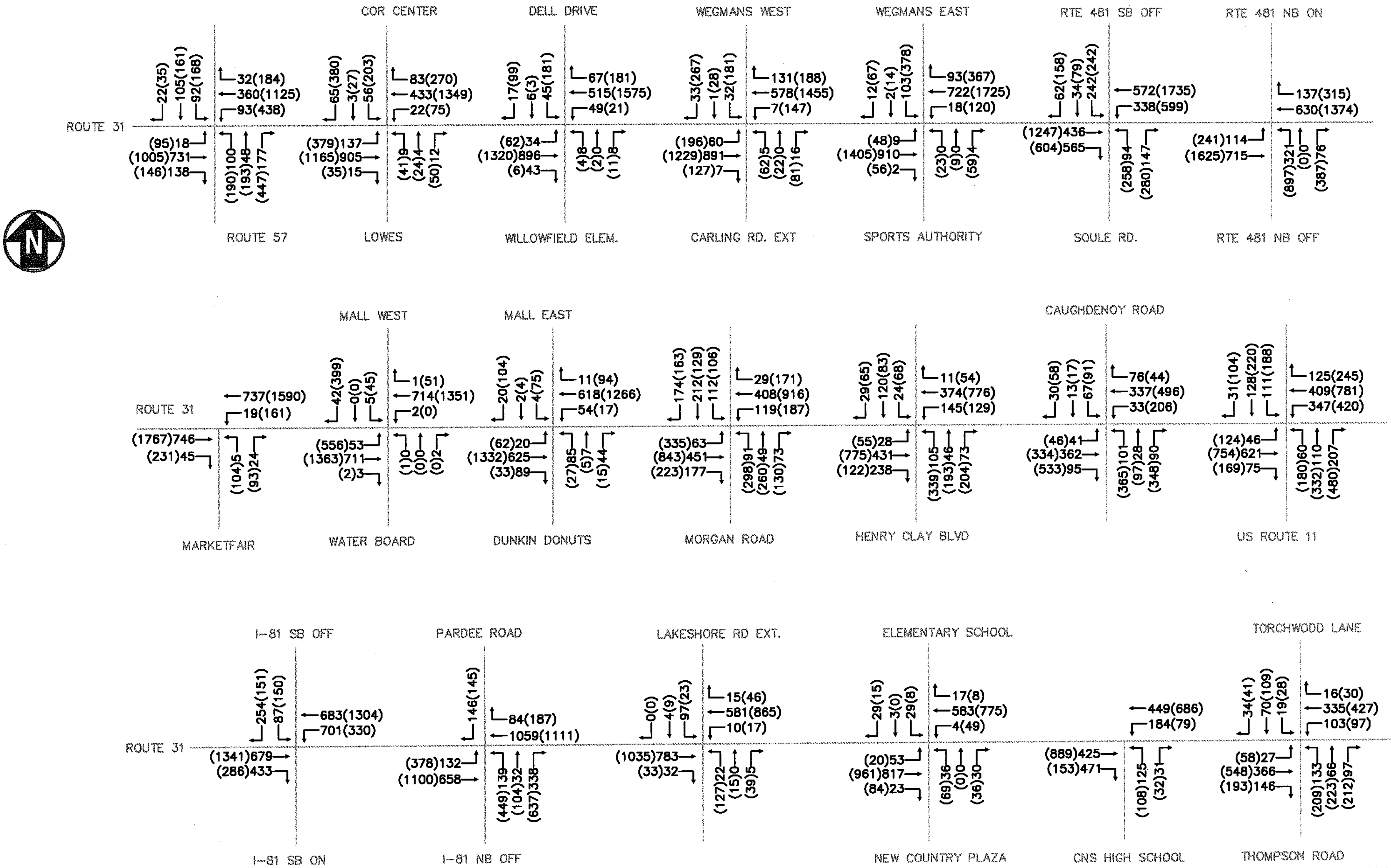

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FIGURE 18
2016 BUILD TRAFFIC VOLUMES
WHITE PINES COMMERCE PARK
TOWN OF CLAY, NEW YORK

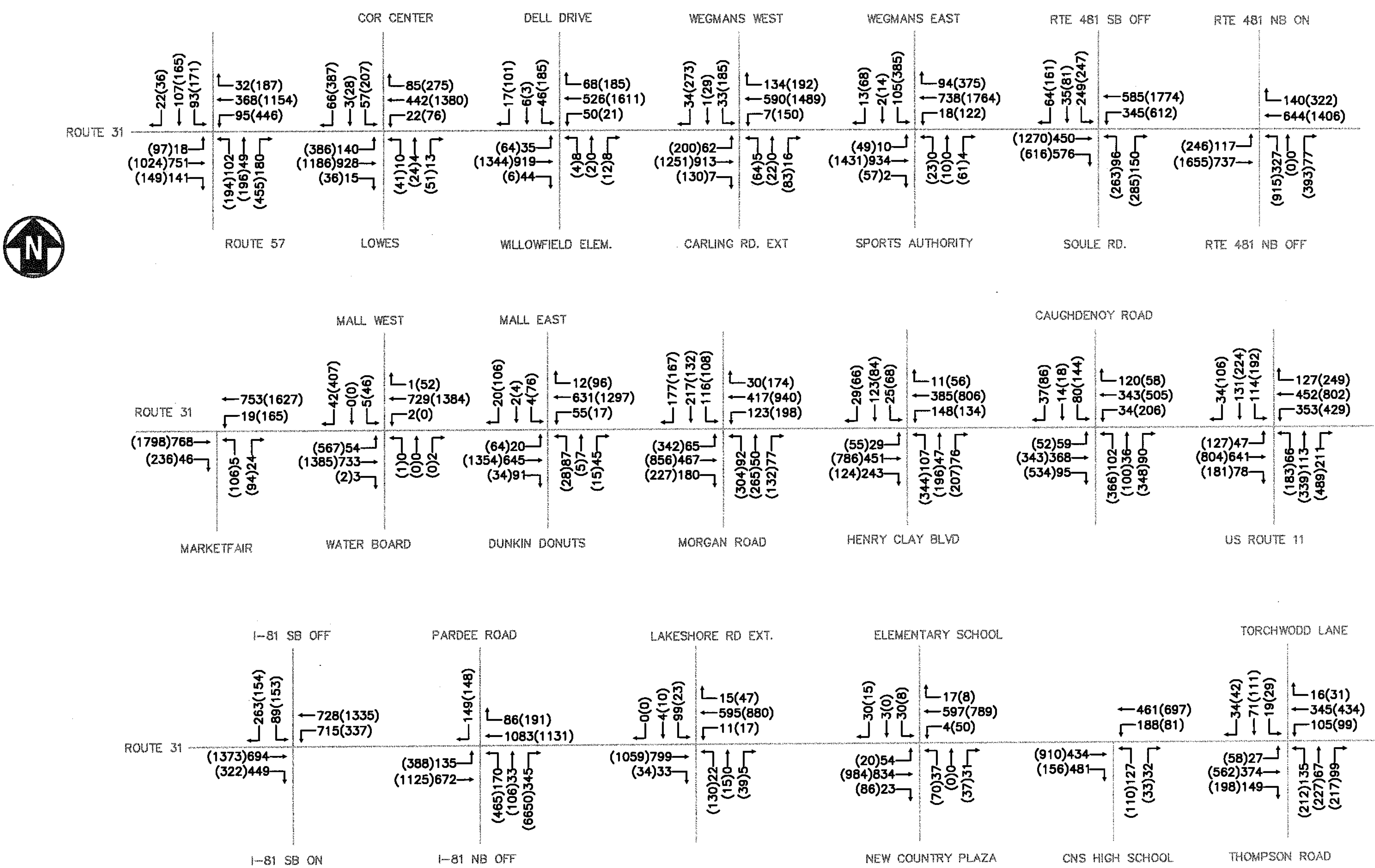

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FIGURE 19
2018 BUILD TRAFFIC VOLUMES
WHITE PINES COMMERCE PARK
TOWN OF CLAY, NEW YORK

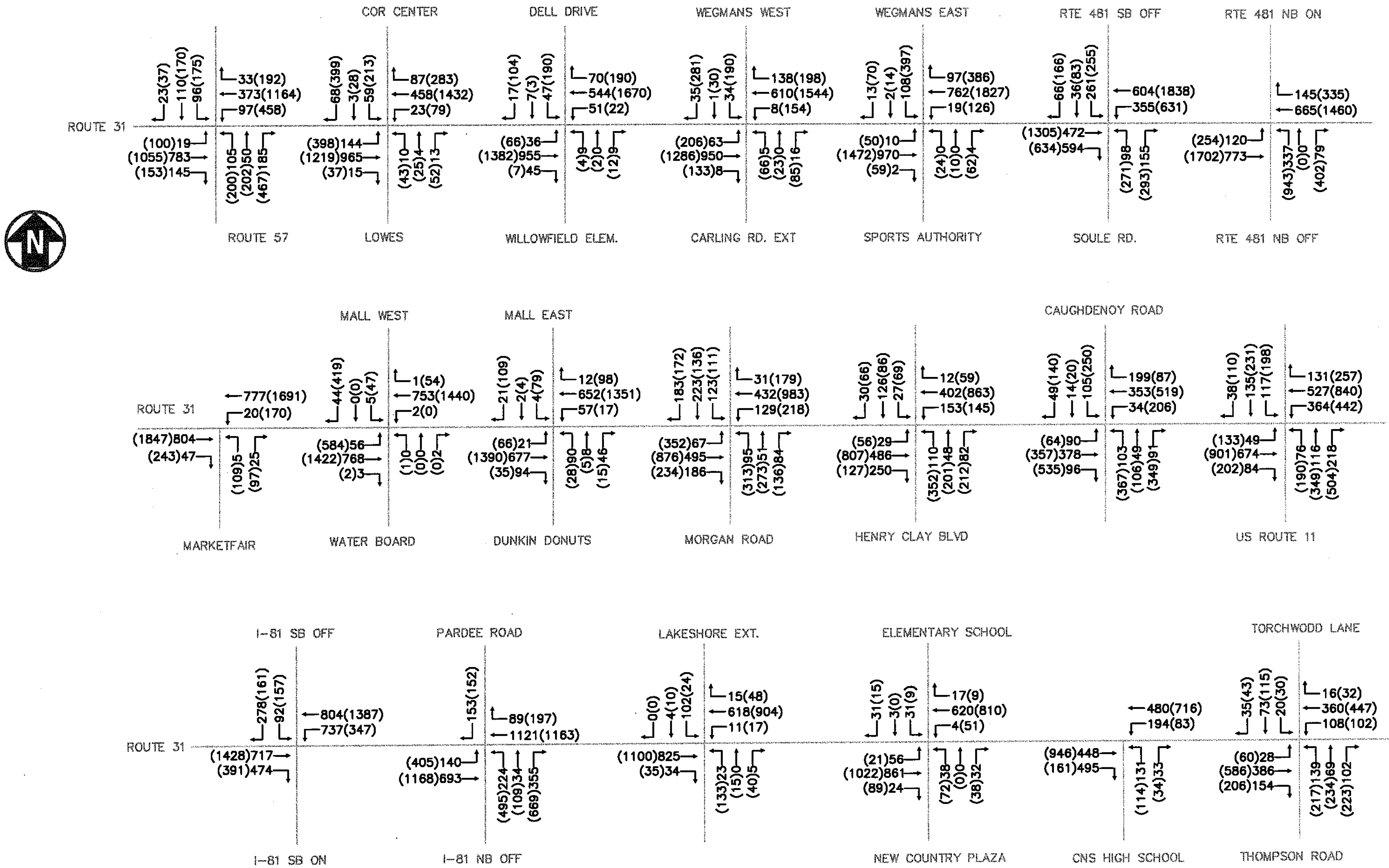

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FIGURE 20
2021 BUILD TRAFFIC VOLUMES
WHITE PINES COMMERCE PARK
TOWN OF CLAY, NEW YORK

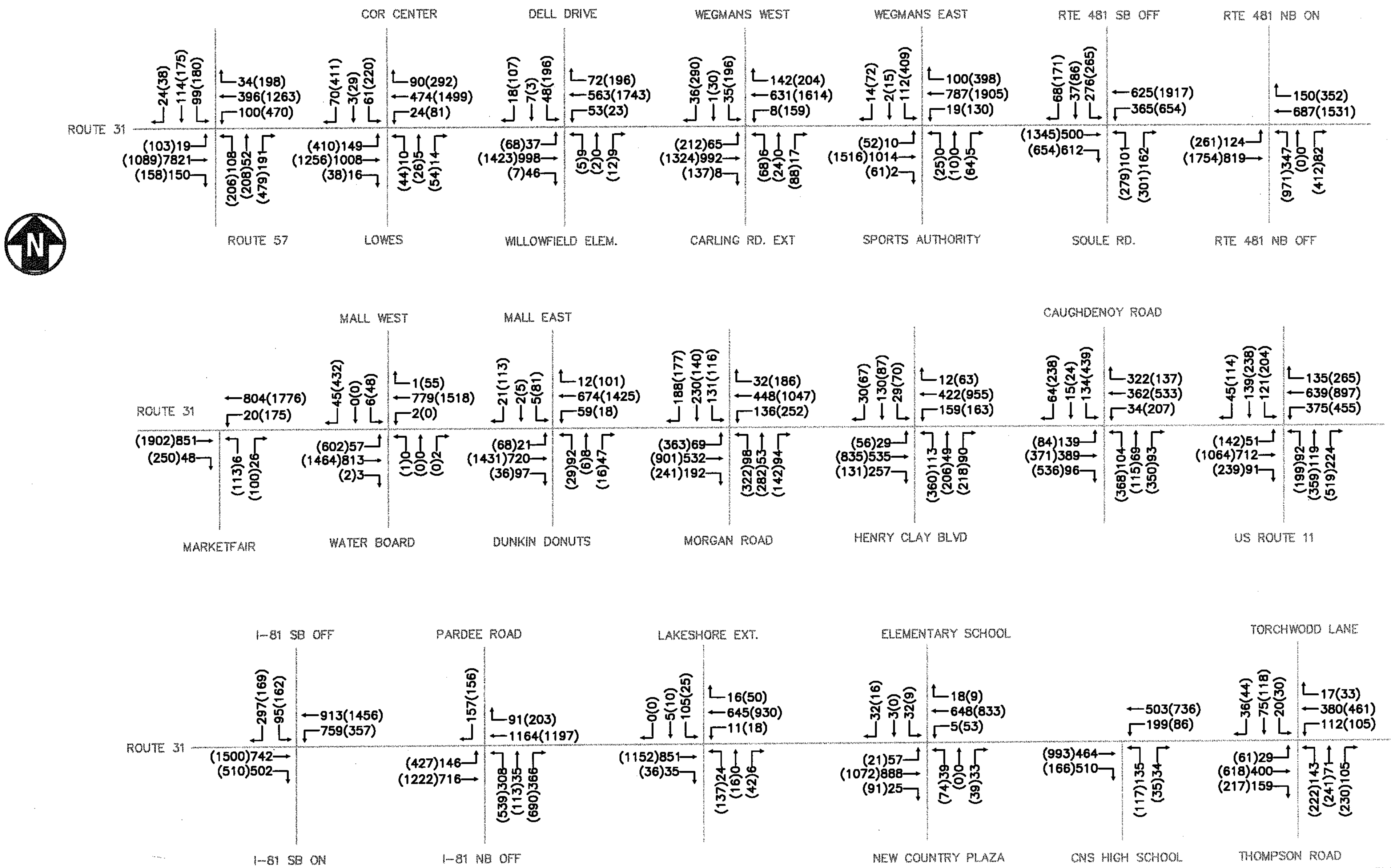

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FIGURE 21
2024 BUILD TRAFFIC VOLUMES
WHITE PINES COMMERCE PARK
TOWN OF CLAY, NEW YORK

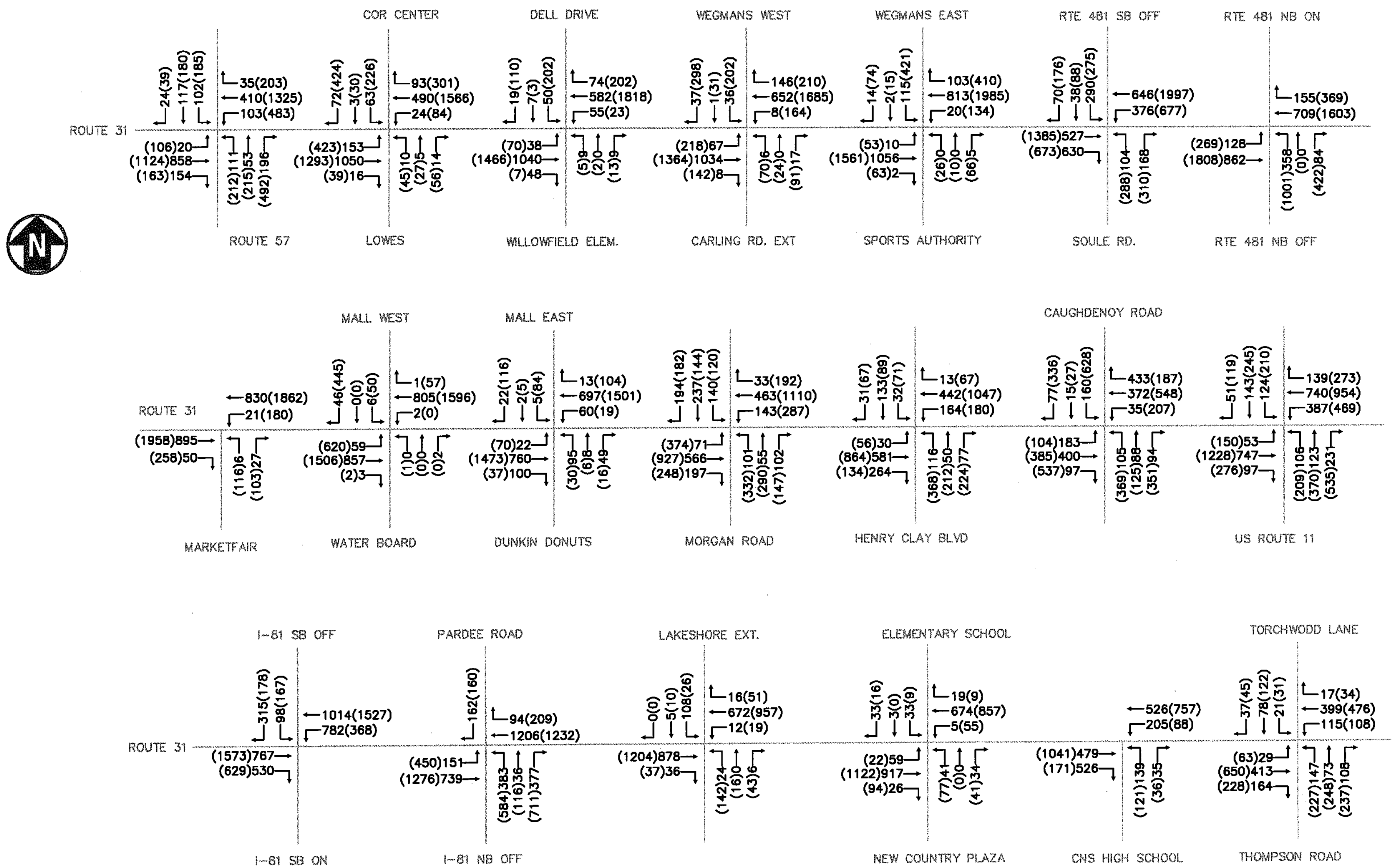

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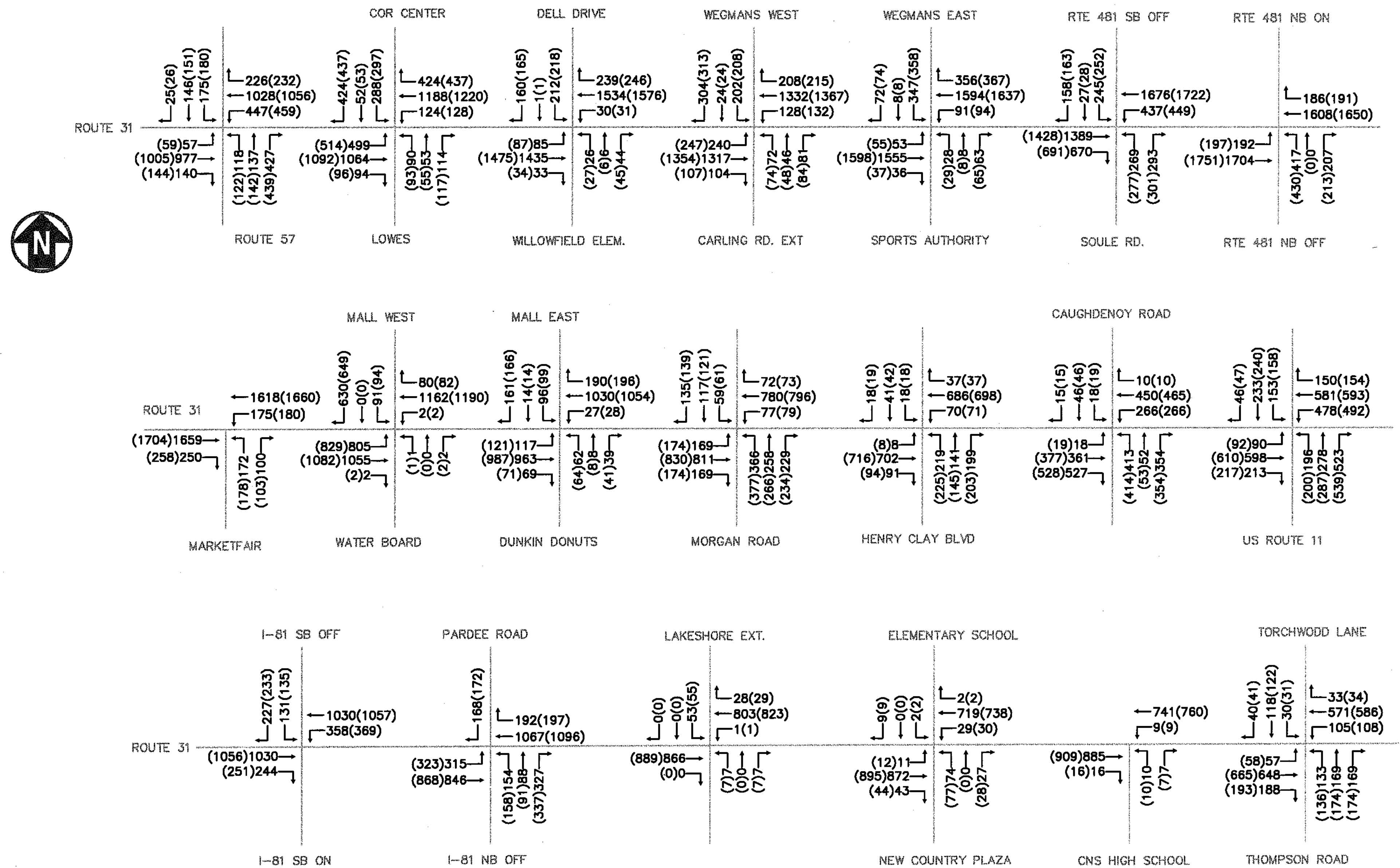
FIGURE 22
2027 BUILD TRAFFIC VOLUMES
WHITE PINES COMMERCE PARK
TOWN OF CLAY, NEW YORK



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2024(2027)

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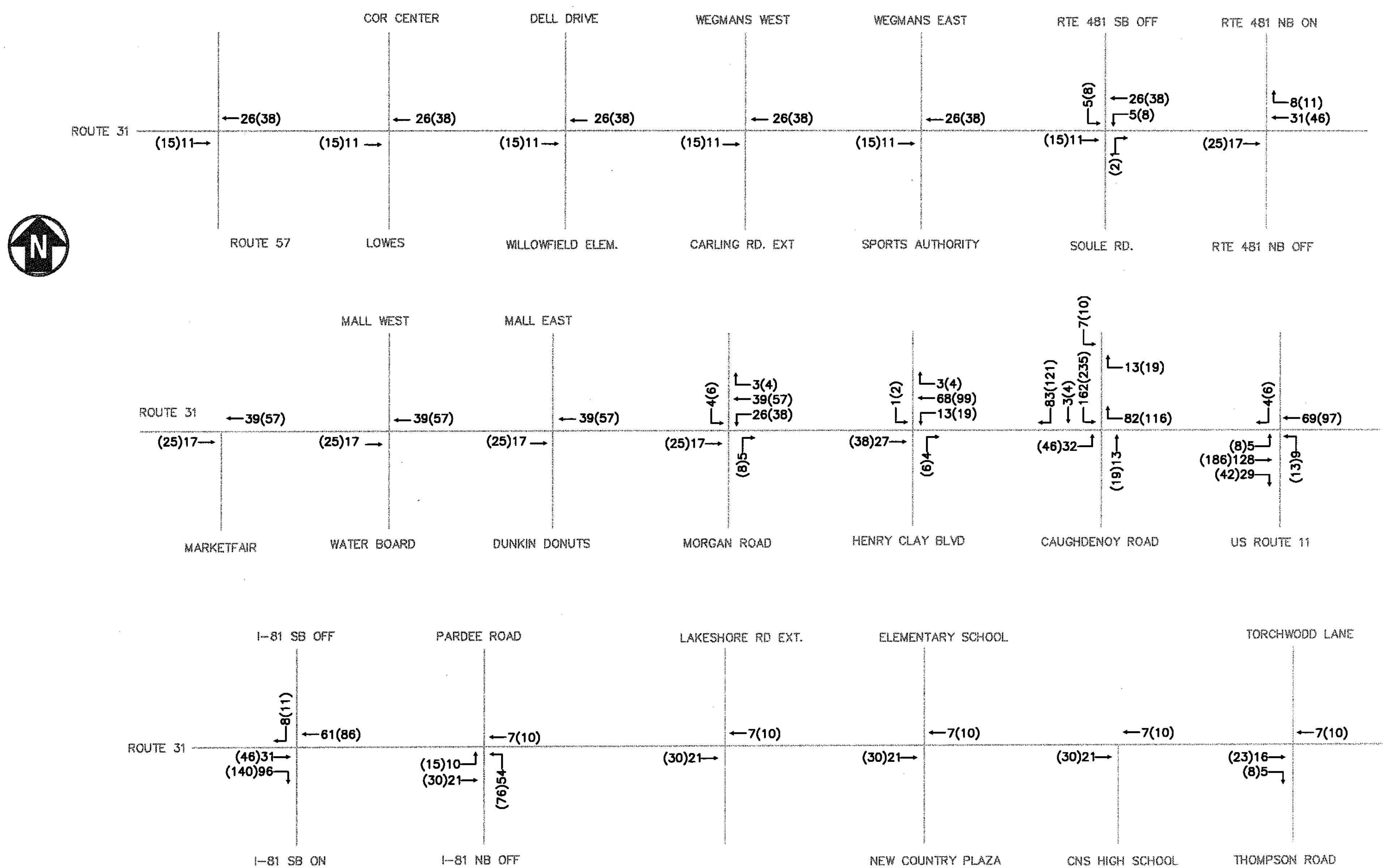
PROJECT NO. 20735 | NOT TO SCALE

FIGURE 23

2024 & 2027 SATURDAY NO BUILD TRAFFIC VOLUMES

WHITE PINES COMMERCE PARK
TOWN OF CLAY, NEW YORK



LEGEND:
2024(2027)

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FIGURE 24
2024 & 2027 SATURDAY DISTRIBUTION VOLUMES
WHITE PINES COMMERCE PARK
TOWN OF CLAY, NEW YORK

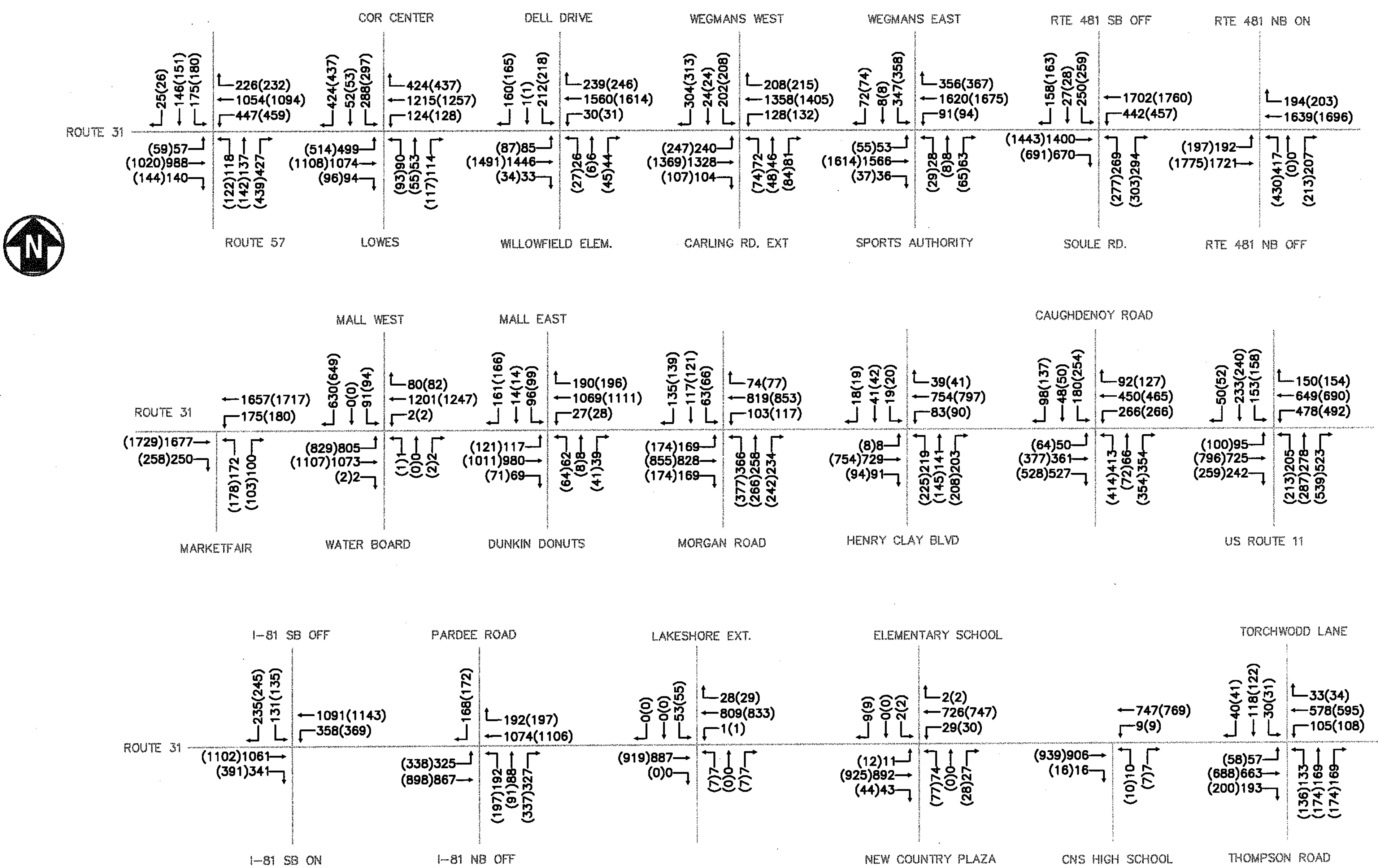

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FIGURE 25

2024 & 2027 SATURDAY BUILD TRAFFIC VOLUMES

WHITE PINES COMMERCE PARK

TOWN OF CLAY, NEW YORK

APPENDIX B
TRIP GENERATION CALCULATIONS

		AM	PM	Sat.						
100,000 SF										
LUC 130	50,000	55	81		AM Enter	45	PM Enter	17		
					Exit	10	Exit	64		
LUC 160	50,000	5	5		AM Enter	2	PM Enter	1		
					Exit	2	Exit	4		
			Total		AM Enter	47	PM Enter	18		
					Exit	12	Exit	67		
250,000 SF										
LUC 130	125,000	113	138		AM Enter	92	PM Enter	29		
					Exit	20	Exit	109		
LUC 160	125,000	11	11		AM Enter	6	PM Enter	2		
					Exit	5	Exit	9		
			Total		AM Enter	98	PM Enter	31		
					Exit	26	Exit	118		
500,000 SF										
LUC 130	250,000	195	235		AM Enter	160	PM Enter	49		
					Exit	35	Exit	185		
LUC 160	250,000	23	23		AM Enter	12	PM Enter	5		
					Exit	11	Exit	18		
			Total		AM Enter	171	PM Enter	54		
					Exit	46	Exit	203		
1,000,000 SF										
LUC 130	500,000	337	427		AM Enter	276	PM Enter	90		
					Exit	61	Exit	337		
LUC 160	500,000	45	45		AM Enter	23	PM Enter	9		
					Exit	22	Exit	36		
			Total		AM Enter	300	PM Enter	99		
					Exit	82	Exit	373		
1,500,000 SF										
LUC 130	1,000,000	582	812	350	AM Enter	478	PM Enter	171	Sat Enter	112
					Exit	105	Exit	642	Exit	238
LUC 160	500,000	45	45	45	AM Enter	23	PM Enter	9	Sat Enter	23
					Exit	22	Exit	36	Exit	23
			Total		AM Enter	501	PM Enter	180	Sat Enter	135
					Exit	126	Exit	677	Exit	261
2,000,000 SF										
LUC 130	1,500,000	802	1197	525	AM Enter	658	PM Enter	251	Sat Enter	168
					Exit	144	Exit	946	Exit	357
LUC 160	500,000	45	45	45	AM Enter	23	PM Enter	9	Sat Enter	23
					Exit	22	Exit	36	Exit	23
			Total		AM Enter	681	PM Enter	261	Sat Enter	191
					Exit	166	Exit	981	Exit	380

APPENDIX C
LEVEL OF SERVICE CRITERIA

From the *Highway Capacity Manual 2000* published by the Transportation Review Board:

Signalized Intersections

LOS CRITERIA FOR SIGNALIZED INTERSECTIONS

LOS	Control Delay per Vehicle (s/veh)*
A	≤ 10
B	> 10-20
C	> 20-35
D	> 35-55
E	> 55-80
F	> 80

** s/veh = seconds per vehicle*

LOS A describes operations with low control delay, up to 10 s/veh. This LOS occurs when progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may tend to contribute to low delay values.

LOS B describes operations with control delay greater than 10 and up to 20 s/veh. This level generally occurs with good progression, short cycle lengths, or both. More vehicles stop than with LOS A, causing higher levels of delay.

LOS C describes operations with control delay greater than 20 and up to 35 s/veh. These higher delays may result from only fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level. Cycle failure occurs when a green phase does not serve queued vehicles, and overflows occur. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.

LOS D describes operations with control delay greater than 35 and up to 55 s/veh. At LOS D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volume-to-capacity (v/c) ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.

LOS E describes operations with control delay greater than 55 and up to 80 s/veh. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent.

LOS F describes operations with delay in excess of 80 s/veh. This level, considered unacceptable to most drivers, often occurs with over-saturation, that is, when arrival flow rates exceed the capacity of lane groups. It may also occur at high v/c ratios with many individual cycle failures. Poor progression and long cycle lengths may also contribute significantly to high delay levels. Often, vehicles do not pass through the intersection in one signal cycle.

Unsignalized Intersection Delay

The level of service criteria for an unsignalized intersection differs from that of a signalized intersection because of the expectation that signalized intersections encounter more traffic and therefore greater delays. The thresholds for the levels of service of unsignalized intersections are as follows:

LOS CRITERIA FOR UNSIGNALIZED INTERSECTIONS

LOS	Control Delay per Vehicle (s/veh)
A	≤ 10
B	$> 10\text{-}15$
C	$> 15\text{-}25$
D	$> 25\text{-}35$
E	$> 35\text{-}50$
F	> 50

Highway Capacity Manual 2000

Levels-of-service A, B, and C are considered acceptable, LOS D is generally considered marginally acceptable/unacceptable, and LOS E and F are considered unacceptable.

APPENDIX D
CAPACITY ANALYSIS WORKSHEETS

AVAILABLE UPON REQUEST

APPENDIX E
TRAFFIC COUNTS

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File Name : Route 57 AM
Site Code : 00000001
Start Date : 3/25/2010
Page No : 1

Groups Printed- Unshifted - Bank 1

	Rte. 57 Southbound					SR 31 Westbound					Rte. 57 Northbound					SR 31 Eastbound					
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
07:00 AM	1	21	13	0	35	0	57	12	0	69	29	12	21	0	62	40	157	2	0	199	365
07:15 AM	0	23	15	0	38	6	50	15	0	71	28	21	17	0	66	34	167	0	0	201	376
07:30 AM	6	19	18	0	43	3	69	15	0	87	38	20	22	0	80	37	161	2	0	200	410
07:45 AM	8	28	15	0	51	5	97	18	0	120	41	11	30	0	82	34	177	3	0	214	467
Total	15	91	61	0	167	14	273	60	0	347	136	64	90	0	290	145	662	7	0	814	1618
08:00 AM	3	33	15	0	51	8	76	16	0	100	36	12	22	0	70	46	149	7	0	202	423
08:15 AM	3	27	23	0	53	8	69	19	0	96	46	11	22	0	79	33	147	4	0	184	412
08:30 AM	2	25	21	0	48	7	53	32	0	92	33	22	14	0	69	31	125	6	0	162	371
08:45 AM	8	29	26	0	63	10	72	19	0	101	47	22	21	0	90	32	125	4	0	161	415
Total	16	114	85	0	215	33	270	86	0	389	162	67	79	0	308	142	546	21	0	709	1621
Grand Total	31	205	146	0	382	47	543	146	0	736	298	131	169	0	598	287	1208	28	0	1523	3239
Apprch %	8.1	53.7	38.2	0		6.4	73.8	19.8	0		49.8	21.9	28.3	0		18.8	79.3	1.8	0		
Total %	1	6.3	4.5	0	11.8	1.5	16.8	4.5	0	22.7	9.2	4	5.2	0	18.5	8.9	37.3	0.9	0	47	
Unshifted	31	205	146	0	382	47	543	146	0	736	298	131	169	0	598	287	1208	28	0	1523	3239
% Unshifted	100	100	100	0	100	100	100	100	0	100	100	100	100	0	100	100	100	100	0	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Rte. 57 Southbound					SR 31 Westbound					Rte. 57 Northbound					SR 31 Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	6	19	18	0	43	3	69	15	0	87	38	**20**	22	0	80	37	161	2	0	200	410
07:45 AM	**8**	28	15	0	51	5	**97**	18	0	**120**	41	11	**30**	0	**82**	34	**177**	3	0	**214**	**467**
08:00 AM	3	**33**	15	0	51	**8**	76	16	0	100	36	12	22	0	70	**46**	149	**7**	0	202	423
08:15 AM	3	27	**23**	0	**53**	8	69	**19**	0	96	**46**	11	22	0	79	33	147	4	0	184	412
Total Volume	20	107	71	0	198	24	311	68	0	403	161	54	96	0	311	150	634	16	0	800	1712
% App. Total	10.1	54	35.9	0		6	77.2	16.9	0		51.8	17.4	30.9	0		18.8	79.2	2	0		
PHF	.625	.811	.772	.000	.934	.750	.802	.895	.000	.840	.875	.675	.800	.000	.948	.815	.895	.571	.000	.935	.916

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Syracsue, NY 13202

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File Name : Route 57 PM
Site Code : 00000001
Start Date : 3/25/2010
Page No : 1

Groups Printed- Unshifted - Bank 1

	Rte. 57 Southbound					SR 31 Westbound					Rte. 57 Northbound					SR 31 Eastbound					
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	7	30	24	0	61	39	181	77	0	297	53	37	37	0	127	40	146	15	0	201	686
04:15 PM	4	30	30	0	64	34	204	65	0	303	66	43	34	0	143	28	172	23	0	223	733
04:30 PM	7	36	27	0	70	22	181	75	0	278	61	30	44	0	135	30	156	12	0	198	681
04:45 PM	13	33	19	0	65	25	214	80	0	319	78	43	35	0	156	38	149	13	0	200	740
Total	31	129	100	0	260	120	780	297	0	1197	258	153	150	0	561	136	623	63	0	822	2840
05:00 PM	11	26	23	0	60	42	160	90	0	292	87	49	36	0	172	35	162	12	0	209	733
05:15 PM	15	33	39	0	87	31	208	84	0	323	67	45	40	0	152	41	165	15	0	221	783
05:30 PM	12	49	24	0	85	33	220	103	0	356	65	43	41	0	149	34	156	12	0	202	792
05:45 PM	10	48	23	0	81	30	207	91	0	328	75	34	33	0	142	31	149	11	0	191	742
Total	48	156	109	0	313	136	795	368	0	1299	294	171	150	0	615	141	632	50	0	823	3050
Grand Total	79	285	209	0	573	256	1575	665	0	2496	552	324	300	0	1176	277	1255	113	0	1645	5890
Apprch %	13.8	49.7	36.5	0		10.3	63.1	26.6	0		46.9	27.6	25.5	0		16.8	76.3	6.9	0		
Total %	1.3	4.8	3.5	0	9.7	4.3	26.7	11.3	0	42.4	9.4	5.5	5.1	0	20	4.7	21.3	1.9	0	27.9	
Unshifted	79	285	209	0	573	256	1575	665	0	2496	552	324	300	0	1176	277	1255	113	0	1645	5890
% Unshifted	100	100	100	0	100	100	100	100	0	100	100	100	100	0	100	100	100	100	0	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Rte. 57 Southbound					SR 31 Westbound					Rte. 57 Northbound					SR 31 Eastbound					
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 05:30 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	13	33	19	0	65	25	214	80	0	319	78	43	35	0	156	38	149	13	0	200	740
05:00 PM	11	26	23	0	60	**42**	160	90	0	292	**87**	**49**	36	0	**172**	35	162	12	0	209	733
05:15 PM	**15**	33	**39**	0	**87**	31	208	84	0	323	67	45	40	0	152	**41**	**165**	**15**	0	**221**	783
05:30 PM	12	**49**	24	0	85	33	**220**	**103**	0	**356**	65	43	**41**	0	149	34	156	12	0	202	**792**
Total Volume	51	141	105	0	297	131	802	357	0	1290	297	180	152	0	629	148	632	52	0	832	3048
% App. Total	17.2	47.5	35.4	0		10.2	62.2	27.7	0		47.2	28.6	24.2	0		17.8	76	6.2	0		
PHF	.850	.719	.673	.000	.853	.780	.911	.867	.000	.906	.853	.918	.927	.000	.914	.902	.958	.867	.000	.941	.962

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File Name : Target AM
Site Code : 00000002
Start Date : 3/10/2010
Page No : 1

Groups Printed- Unshifted - Bank 1

	Target Southbound					SR 31 Westbound					Lowes Northbound					SR 31 Eastbound					
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
07:00 AM	6	0	6	0	12	13	52	2	0	67	1	0	0	0	1	2	171	14	0	187	267
07:15 AM	10	0	8	0	18	12	61	4	0	77	2	0	2	0	4	1	182	14	0	197	296
07:30 AM	9	1	11	0	21	8	69	5	0	82	4	2	2	0	8	6	208	25	0	239	350
07:45 AM	12	2	9	0	23	19	93	5	0	117	2	2	4	0	8	5	179	34	0	218	366
Total	37	3	34	0	74	52	275	16	0	343	9	4	8	0	21	14	740	87	0	841	1279
08:00 AM	9	0	8	0	17	14	80	2	0	96	3	1	2	0	6	4	169	29	0	202	321
08:15 AM	11	0	13	0	24	19	58	3	0	80	2	1	2	0	5	1	144	29	0	174	283
08:30 AM	16	2	17	0	35	19	67	10	0	96	4	1	6	0	11	9	155	31	0	195	337
08:45 AM	25	1	15	0	41	40	79	9	0	128	5	2	4	0	11	4	160	43	0	207	387
Total	61	3	53	0	117	92	284	24	0	400	14	5	14	0	33	18	628	132	0	778	1328
Grand Total	98	6	87	0	191	144	559	40	0	743	23	9	22	0	54	32	1368	219	0	1619	2607
Apprch %	51.3	3.1	45.5	0		19.4	75.2	5.4	0		42.6	16.7	40.7	0		2	84.5	13.5	0		
Total %	3.8	0.2	3.3	0	7.3	5.5	21.4	1.5	0	28.5	0.9	0.3	0.8	0	2.1	1.2	52.5	8.4	0	62.1	
Unshifted	98	6	87	0	191	144	559	40	0	743	23	9	22	0	54	32	1368	219	0	1619	2607
% Unshifted	100	100	100	0	100	100	100	100	0	100	100	100	100	0	100	100	100	100	0	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 07:15 AM

	Target Southbound					SR 31 Westbound					Lowes Northbound					SR 31 Eastbound					
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
07:15 AM	10	0	8	0	18	12	61	4	0	77	2	0	2	0	4	1	182	14	0	197	296
07:30 AM	9	1	**11**	0	21	8	69	**5**	0	82	**4**	**2**	2	0	**8**	**6**	**208**	25	0	**239**	350
07:45 AM	**12**	**2**	9	0	**23**	**19**	**93**	5	0	**117**	2	2	**4**	0	8	5	179	**34**	0	218	**366**
08:00 AM	9	0	8	0	17	14	80	2	0	96	3	1	2	0	6	4	169	29	0	202	321
Total Volume	40	3	36	0	79	53	303	16	0	372	11	5	10	0	26	16	738	102	0	856	1333
% App. Total	50.6	3.8	45.6	0		14.2	81.5	4.3	0		42.3	19.2	38.5	0		1.9	86.2	11.9	0		
PHF	.833	.375	.818	.000	.859	.697	.815	.800	.000	.795	.688	.625	.625	.000	.813	.667	.887	.750	.000	.895	.911

0.89 0.80 0.84 0.87

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File Name : Target PM
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Start Date : 3/10/2010
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Groups Printed- Unshifted - Bank 1

	Target Southbound					SR 31 Westbound					Lowes Northbound					SR 31 Eastbound					
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	66	3	51	0	120	60	202	18	0	280	15	2	11	1	29	7	149	56	0	212	641
04:15 PM	60	6	38	0	104	59	246	14	0	319	15	2	10	0	27	15	163	50	0	228	678
04:30 PM	70	8	32	1	111	59	224	10	0	293	14	8	14	0	36	10	154	68	0	232	672
04:45 PM	82	3	53	0	138	46	234	13	0	293	18	4	9	0	31	5	185	62	0	252	714
Total	278	20	174	1	473	224	906	55	0	1185	62	16	44	1	123	37	651	236	0	924	2705
05:00 PM	78	4	39	0	121	50	252	6	0	308	22	3	6	0	31	8	169	64	0	241	701
05:15 PM	70	5	48	0	123	45	276	26	0	347	14	5	6	0	25	6	189	64	0	259	754
05:30 PM	68	6	35	0	109	55	273	14	0	342	11	4	4	0	19	8	189	63	0	260	730
05:45 PM	83	7	32	0	122	60	220	19	0	299	15	4	12	0	31	15	161	52	1	229	681
Total	299	22	154	0	475	210	1021	65	0	1296	62	16	28	0	106	37	708	243	1	989	2866
Grand Total	577	42	328	1	948	434	1927	120	0	2481	124	32	72	1	229	74	1359	479	1	1913	5571
Apprch %	60.9	4.4	34.6	0.1		17.5	77.7	4.8	0		54.1	14	31.4	0.4		3.9	71	25	0.1		
Total %	10.4	0.8	5.9	0	17	7.8	34.6	2.2	0	44.5	2.2	0.6	1.3	0	4.1	1.3	24.4	8.6	0	34.3	
Unshifted	577	42	328	1	948	434	1927	120	0	2481	124	32	72	1	229	74	1359	479	1	1913	5571
% Unshifted	100	100	100	100	100	100	100	100	0	100	100	100	100	100	100	100	100	100	100	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Target Southbound					SR 31 Westbound					Lowes Northbound					SR 31 Eastbound					
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 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	**82**	3	**53**	0	**138**	46	234	13	0	293	18	4	**9**	0	**31**	5	185	62	0	252	714
05:00 PM	78	4	39	0	121	50	252	6	0	308	**22**	3	6	0	31	**8**	169	**64**	0	241	701
05:15 PM	70	5	48	0	123	45	**276**	**26**	0	**347**	14	**5**	6	0	25	6	**189**	64	0	259	**754**
05:30 PM	68	**6**	35	0	109	**55**	273	14	0	342	11	4	4	0	19	8	189	63	0	**260**	730
Total Volume	298	18	175	0	491	196	1035	59	0	1290	65	16	25	0	106	27	732	253	0	1012	2899
% App. Total	60.7	3.7	35.6	0		15.2	80.2	4.6	0		61.3	15.1	23.6	0		2.7	72.3	25	0		
PHF	.909	.750	.825	.000	.889	.891	.938	.567	.000	.929	.739	.800	.694	.000	.855	.844	.968	.988	.000	.973	.961

Ok

CHA, Inc
441 South Salina Street
Syracsue, NY 13202

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File Name : Dell Drive AM
Site Code : 00000003
Start Date : 3/9/2010
Page No : 1

Groups Printed- Unshifted - Bank 1

	Dell Drive Southbound					SR 31 Westbound					Willowfield Elem. Northbound					SR 31 Eastbound					
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
07:00 AM	1	0	3	0	4	6	67	0	0	73	1	0	0	0	1	1	165	3	0	169	247
07:15 AM	1	0	9	0	10	6	79	4	0	89	1	0	1	0	2	4	201	1	0	206	307
07:30 AM	0	0	0	0	0	7	78	6	0	91	5	0	0	0	5	4	206	2	0	212	308
07:45 AM	2	1	2	0	5	14	138	4	0	156	9	0	2	0	11	12	185	9	0	206	378
Total	4	1	14	0	19	33	362	14	0	409	16	0	3	0	19	21	757	15	0	793	1240
08:00 AM	4	0	10	0	14	13	93	7	0	113	3	1	2	0	6	7	169	7	0	183	316
08:15 AM	1	0	12	0	13	11	92	8	0	111	0	0	1	0	1	4	180	9	0	193	318
08:30 AM	1	1	7	0	9	14	81	7	0	102	3	0	0	0	3	6	150	4	0	160	274
08:45 AM	5	0	16	0	21	15	114	12	0	141	3	0	2	0	5	7	153	12	0	172	339
Total	11	1	45	0	57	53	380	34	0	467	9	1	5	0	15	24	652	32	0	708	1247
Grand Total	15	2	59	0	76	86	742	48	0	876	25	1	8	0	34	45	1409	47	0	1501	2487
Apprch %	19.7	2.6	77.6	0		9.8	84.7	5.5	0		73.5	2.9	23.5	0		3	93.9	3.1	0		
Total %	0.6	0.1	2.4	0	3.1	3.5	29.8	1.9	0	35.2	1	0	0.3	0	1.4	1.8	56.7	1.9	0	60.4	
Unshifted	15	2	59	0	76	86	742	48	0	876	25	1	8	0	34	45	1409	47	0	1501	2487
% Unshifted	100	100	100	0	100	100	100	100	0	100	100	100	100	0	100	100	100	100	0	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Dell Drive Southbound					SR 31 Westbound					Willowfield Elem. Northbound					SR 31 Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	0	0	0	0	0	7	78	6	0	91	5	0	0	0	5	4	**206**	2	0	**212**	308
07:45 AM	2	**1**	2	0	5	**14**	**138**	4	0	**156**	**9**	0	**2**	0	**11**	**12**	185	**9**	0	206	**378**
08:00 AM	**4**	0	10	0	**14**	13	93	7	0	113	3	**1**	2	0	6	7	169	7	0	183	316
08:15 AM	1	0	**12**	0	13	11	92	**8**	0	111	0	0	1	0	1	4	180	9	0	193	318
Total Volume	7	1	24	0	32	45	401	25	0	471	17	1	5	0	23	27	740	27	0	794	1320
% App. Total	21.9	3.1	75	0		9.6	85.1	5.3	0		73.9	4.3	21.7	0		3.4	93.2	3.4	0		
PHF	.438	.250	.500	.000	.571	.804	.726	.781	.000	.755	.472	.250	.625	.000	.523	.563	.898	.750	.000	.936	.873

02

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441 South Salina Street
Syracsue, NY 13202

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File Name : Dell Drive PM
Site Code : 00000003
Start Date : 3/9/2010
Page No : 1

Groups Printed- Unshifted - Bank 1

	Dell Drive Southbound					SR 31 Westbound					Willowfield Elem. Northbound					SR 31 Eastbound					
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	11	0	47	0	58	39	263	2	0	304	2	2	5	0	9	1	204	13	0	218	589
04:15 PM	9	0	34	0	43	26	266	2	0	294	6	1	3	0	10	6	179	6	0	191	538
04:30 PM	6	0	28	0	34	14	248	2	0	264	5	0	4	0	9	3	207	7	0	217	524
04:45 PM	12	1	27	0	40	31	294	0	0	325	3	0	1	0	4	2	211	3	0	216	585
Total	38	1	136	0	175	110	1071	6	0	1187	16	3	13	0	32	12	801	29	0	842	2236
05:00 PM	12	0	29	0	41	41	286	4	0	331	7	0	2	0	9	0	190	6	0	196	577
05:15 PM	15	0	26	0	41	38	308	1	0	347	1	0	3	0	4	0	230	19	0	249	641
05:30 PM	16	2	35	0	53	45	287	4	0	336	1	1	1	0	3	1	213	6	0	220	612
05:45 PM	23	3	26	0	52	35	284	14	0	333	4	0	0	0	4	13	216	7	0	236	625
Total	66	5	116	0	187	159	1165	23	0	1347	13	1	6	0	20	14	849	38	0	901	2455
Grand Total	104	6	252	0	362	269	2236	29	0	2534	29	4	19	0	52	26	1650	67	0	1743	4691
Apprch %	28.7	1.7	69.6	0		10.6	88.2	1.1	0		55.8	7.7	36.5	0		1.5	94.7	3.8	0		
Total %	2.2	0.1	5.4	0	7.7	5.7	47.7	0.6	0	54	0.6	0.1	0.4	0	1.1	0.6	35.2	1.4	0	37.2	
Unshifted	104	6	252	0	362	269	2236	29	0	2534	29	4	19	0	52	26	1650	67	0	1743	4691
% Unshifted	100	100	100	0	100	100	100	100	0	100	100	100	100	0	100	100	100	100	0	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Dell Drive Southbound					SR 31 Westbound					Willowfield Elem. Northbound					SR 31 Eastbound					
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 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	12	0	29	0	41	41	286	4	0	331	**7**	0	2	0	**9**	0	190	6	0	196	577
05:15 PM	15	0	26	0	41	38	**308**	1	0	**347**	1	0	**3**	0	4	0	**230**	**19**	0	**249**	**641**
05:30 PM	16	2	**35**	0	**53**	**45**	287	4	0	336	1	**1**	1	0	3	1	213	6	0	220	612
05:45 PM	**23**	**3**	26	0	52	35	284	**14**	0	333	4	0	0	0	4	**13**	216	7	0	236	625
Total Volume	66	5	116	0	187	159	1165	23	0	1347	13	1	6	0	20	14	849	38	0	901	2455
% App. Total	35.3	2.7	62	0		11.8	86.5	1.7	0		65	5	30	0		1.6	94.2	4.2	0		
PHF	.717	.417	.829	.000	.882	.883	.946	.411	.000	.970	.464	.250	.500	.000	.556	.269	.923	.500	.000	.905	.957

0.83 0.97 0.56 0.89

CHA, Inc

441 South Salina Street
Syracsue, NY 13202

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File Name : Carling Road AM
Site Code : 00000004
Start Date : 3/4/2010
Page No : 1

Groups Printed- Unshifted - Bank 1

	Walmart Driveway Southbound					SR 31 Westbound					Carling Road Northbound					SR 31 Eastbound					
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
07:00 AM	3	0	1	0	4	5	76	1	0	82	6	0	0	0	6	2	167	10	0	179	271
07:15 AM	4	1	5	0	10	9	83	0	0	92	3	0	4	0	7	0	185	13	0	198	307
07:30 AM	14	0	1	0	15	9	96	2	0	107	3	0	0	0	3	3	198	13	0	214	339
07:45 AM	8	0	12	0	20	25	111	7	0	143	7	0	2	0	9	3	187	10	0	200	372
Total	29	1	19	0	49	48	366	10	0	424	19	0	6	0	25	8	737	46	0	791	1289
08:00 AM	2	1	5	0	8	30	100	1	0	131	2	0	0	0	2	1	179	20	0	200	341
08:15 AM	10	0	10	0	20	33	121	4	0	158	6	0	2	0	8	0	141	30	0	171	357
08:30 AM	14	0	16	0	30	53	103	2	0	158	5	0	1	0	6	2	129	29	0	160	354
08:45 AM	16	4	10	0	30	48	120	3	0	171	3	0	1	0	4	8	120	27	0	155	360
Total	42	5	41	0	88	164	444	10	0	618	16	0	4	0	20	11	569	106	0	686	1412
Grand Total	71	6	60	0	137	212	810	20	0	1042	35	0	10	0	45	19	1306	152	0	1477	2701
Apprch %	51.8	4.4	43.8	0		20.3	77.7	1.9	0		77.8	0	22.2	0		1.3	88.4	10.3	0		
Total %	2.6	0.2	2.2	0	5.1	7.8	30	0.7	0	38.6	1.3	0	0.4	0	1.7	0.7	48.4	5.6	0	54.7	
Unshifted	71	6	60	0	137	212	810	20	0	1042	35	0	10	0	45	19	1306	152	0	1477	2701
% Unshifted	100	100	100	0	100	100	100	100	0	100	100	0	100	0	100	100	100	100	0	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Walmart Driveway Southbound					SR 31 Westbound					Carling Road Northbound					SR 31 Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	8	0	12	0	20	25	111	**7**	0	143	**7**	0	**2**	0	**9**	**3**	**187**	10	0	**200**	**372**
08:00 AM	2	**1**	5	0	8	30	100	1	0	131	2	0	0	0	2	1	179	20	0	200	341
08:15 AM	10	0	10	0	20	33	**121**	4	0	**158**	6	0	2	0	8	0	141	**30**	0	171	357
08:30 AM	**14**	0	**16**	0	**30**	**53**	103	2	0	158	5	0	1	0	6	2	129	29	0	160	354
Total Volume	34	1	43	0	78	141	435	14	0	590	20	0	5	0	25	6	636	89	0	731	1424
% App. Total	43.6	1.3	55.1	0		23.9	73.7	2.4	0		80	0	20	0		0.8	87	12.2	0		
PHF	.607	.250	.672	.000	.650	.665	.899	.500	.000	.934	.714	.000	.625	.000	.694	.500	.850	.742	.000	.914	.957

0.79 0.85 0.61 0.92

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441 South Salina Street
Syracuse, NY 13202

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File Name : Carling Road PM
Site Code : 00000004
Start Date : 3/4/2010
Page No : 1

Groups Printed- Unshifted - Bank 1

	Walmart Driveway Southbound					SR 31 Westbound					Carling Road Northbound					SR 31 Eastbound					
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	48	5	25	0	78	47	205	25	0	277	20	3	12	0	35	16	188	34	0	238	628
04:15 PM	56	5	37	0	98	48	226	24	0	298	11	3	13	0	27	17	216	36	0	269	692
04:30 PM	58	5	28	0	91	46	237	21	0	304	17	4	14	0	35	19	221	39	0	279	709
04:45 PM	59	5	40	0	104	45	236	37	0	318	17	3	13	0	33	19	182	37	0	238	693
Total	221	20	130	0	371	186	904	107	0	1197	65	13	52	0	130	71	807	146	0	1024	2722
05:00 PM	63	3	35	0	101	57	251	32	0	340	16	5	15	0	36	26	190	41	0	257	734
05:15 PM	58	2	46	0	106	65	285	44	0	394	18	3	16	0	37	31	234	52	0	317	854
05:30 PM	57	5	52	0	114	56	263	52	0	371	14	4	16	0	34	28	175	35	0	238	757
05:45 PM	44	8	33	0	85	43	242	29	0	314	25	10	20	0	55	27	188	36	0	251	705
Total	222	18	166	0	406	221	1041	157	0	1419	73	22	67	0	162	112	787	164	0	1063	3050
Grand Total	443	38	296	0	777	407	1945	264	0	2616	138	35	119	0	292	183	1594	310	0	2087	5772
Apprch %	57	4.9	38.1	0		15.6	74.4	10.1	0		47.3	12	40.8	0		8.8	76.4	14.9	0		
Total %	7.7	0.7	5.1	0	13.5	7.1	33.7	4.6	0	45.3	2.4	0.6	2.1	0	5.1	3.2	27.6	5.4	0	36.2	
Unshifted	443	38	296	0	777	407	1945	264	0	2616	138	35	119	0	292	183	1594	310	0	2087	5772
% Unshifted	100	100	100	0	100	100	100	100	0	100	100	100	100	0	100	100	100	100	0	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Walmart Driveway Southbound					SR 31 Westbound					Carling Road Northbound					SR 31 Eastbound					
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 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	**63**	3	35	0	101	57	251	32	0	340	16	5	15	0	36	26	190	41	0	257	734
05:15 PM	58	2	46	0	106	**65**	**285**	44	0	**394**	18	3	16	0	37	**31**	**234**	**52**	0	**317**	**854**
05:30 PM	57	5	**52**	0	**114**	56	263	**52**	0	371	14	4	16	0	34	28	175	35	0	238	757
05:45 PM	44	**8**	33	0	85	43	242	29	0	314	**25**	**10**	**20**	0	**55**	27	188	36	0	251	705
Total Volume	222	18	166	0	406	221	1041	157	0	1419	73	22	67	0	162	112	787	164	0	1063	3050
% App. Total	54.7	4.4	40.9	0		15.6	73.4	11.1	0		45.1	13.6	41.4	0		10.5	74	15.4	0		
PHF	.881	.563	.798	.000	.890	.850	.913	.755	.000	.900	.730	.550	.838	.000	.736	.903	.841	.788	.000	.838	.893

0.93 0.90 0.95 0.83

CHA, Inc

441 South Salina Street
Syracsue, NY 13202

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File Name : Wegmans East AM
Site Code : 00000005
Start Date : 3/3/2010
Page No : 1

Groups Printed- Unshifted - Bank 1

	Wegmans East Southbound					SR 31 Westbound					Shopping Center Northbound					SR 31 Eastbound					
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
07:00 AM	3	0	15	0	18	14	70	2	0	86	1	0	0	0	1	0	155	0	0	155	260
07:15 AM	0	0	21	0	21	17	82	0	0	99	0	0	1	0	1	1	190	0	0	191	312
07:30 AM	2	0	17	0	19	9	100	1	0	110	0	0	0	0	0	1	209	3	0	213	342
07:45 AM	2	3	22	0	27	22	150	7	0	179	1	0	0	0	1	1	180	3	0	184	391
Total	7	3	75	0	85	62	402	10	0	474	2	0	1	0	3	3	734	6	0	743	1305
08:00 AM	1	0	16	0	17	15	117	3	0	135	3	0	1	0	4	0	206	0	0	206	362
08:15 AM	0	0	17	0	17	16	126	2	0	144	0	0	0	0	0	0	175	4	0	179	340
08:30 AM	5	0	23	0	28	26	116	4	0	146	2	0	0	0	2	1	135	5	0	141	317
08:45 AM	4	2	20	0	26	23	159	4	0	186	1	0	0	0	1	0	155	1	0	156	369
Total	10	2	76	0	88	80	518	13	0	611	6	0	1	0	7	1	671	10	0	682	1388
Grand Total	17	5	151	0	173	142	920	23	0	1085	8	0	2	0	10	4	1405	16	0	1425	2693
Apprch %	9.8	2.9	87.3	0		13.1	84.8	2.1	0		80	0	20	0		0.3	98.6	1.1	0		
Total %	0.6	0.2	5.6	0	6.4	5.3	34.2	0.9	0	40.3	0.3	0	0.1	0	0.4	0.1	52.2	0.6	0	52.9	
Unshifted	17	5	151	0	173	142	920	23	0	1085	8	0	2	0	10	4	1405	16	0	1425	2693
% Unshifted	100	100	100	0	100	100	100	100	0	100	100	0	100	0	100	100	100	100	0	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Wegmans East Southbound					SR 31 Westbound					Shopping Center Northbound					SR 31 Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	**2**	0	17	0	19	9	100	1	0	110	0	0	0	0	0	**1**	**209**	3	0	**213**	342
07:45 AM	2	**3**	**22**	0	**27**	**22**	**150**	**7**	0	**179**	1	0	0	0	1	1	180	3	0	184	**391**
08:00 AM	1	0	16	0	17	15	117	3	0	135	**3**	0	**1**	0	**4**	0	206	0	0	206	362
08:15 AM	0	0	17	0	17	16	126	2	0	144	0	0	0	0	0	0	175	**4**	0	179	340
Total Volume	5	3	72	0	80	62	493	13	0	568	4	0	1	0	5	2	770	10	0	782	1435
% App. Total	6.2	3.8	90	0		10.9	86.8	2.3	0		80	0	20	0		0.3	98.5	1.3	0		
PHF	.625	.250	.818	.000	.741	.705	.822	.464	.000	.793	.333	.000	.250	.000	.313	.500	.921	.625	.000	.918	.918

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CHA, Inc

441 South Salina Street
Syracsue, NY 13202

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File Name : Wegmans East PM
Site Code : 00000005
Start Date : 3/3/2010
Page No : 1

Groups Printed- Unshifted - Bank 1

	Wegmans East Southbound					SR 31 Westbound					Shopping Center Northbound					SR 31 Eastbound					
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	12	0	80	0	92	66	238	12	0	316	8	4	4	0	16	4	208	8	0	220	644
04:15 PM	10	1	70	0	81	70	266	14	0	350	12	1	3	0	16	4	255	10	0	269	716
04:30 PM	6	1	67	0	74	81	264	15	0	360	10	2	4	0	16	7	193	19	0	219	669
04:45 PM	6	0	73	0	79	86	327	21	0	434	12	1	0	0	13	4	235	7	0	246	772
Total	34	2	290	0	326	303	1095	62	0	1460	42	8	11	0	61	19	891	44	0	954	2801
05:00 PM	8	2	82	0	92	97	291	27	0	415	13	5	4	0	22	11	261	7	0	279	808
05:15 PM	9	4	56	0	69	92	333	30	0	455	12	8	4	0	24	12	227	8	0	247	795
05:30 PM	8	4	79	0	91	93	312	13	0	418	8	0	7	0	15	10	212	29	0	251	775
05:45 PM	13	2	61	0	76	80	264	19	0	363	9	3	9	0	21	13	220	7	0	240	700
Total	38	12	278	0	328	362	1200	89	0	1651	42	16	24	0	82	46	920	51	0	1017	3078
Grand Total	72	14	568	0	654	665	2295	151	0	3111	84	24	35	0	143	65	1811	95	0	1971	5879
Apprch %	11	2.1	86.9	0		21.4	73.8	4.9	0		58.7	16.8	24.5	0		3.3	91.9	4.8	0		
Total %	1.2	0.2	9.7	0	11.1	11.3	39	2.6	0	52.9	1.4	0.4	0.6	0	2.4	1.1	30.8	1.6	0	33.5	
Unshifted	72	14	568	0	654	665	2295	151	0	3111	84	24	35	0	143	65	1811	95	0	1971	5879
% Unshifted	100	100	100	0	100	100	100	100	0	100	100	100	100	0	100	100	100	100	0	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Wegmans East Southbound					SR 31 Westbound					Shopping Center Northbound					SR 31 Eastbound					
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 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	6	0	73	0	79	86	327	21	0	434	12	1	0	0	13	4	235	7	0	246	772
05:00 PM	8	2	**82**	0	**92**	**97**	291	27	0	415	**13**	5	4	0	22	11	**261**	7	0	**279**	**808**
05:15 PM	**9**	**4**	56	0	69	92	**333**	**30**	0	**455**	12	**8**	4	0	**24**	**12**	227	8	0	247	795
05:30 PM	8	4	79	0	91	93	312	13	0	418	8	0	**7**	0	15	10	212	**29**	0	251	775
Total Volume	31	10	290	0	331	368	1263	91	0	1722	45	14	15	0	74	37	935	51	0	1023	3150
% App. Total	9.4	3	87.6	0		21.4	73.3	5.3	0		60.8	18.9	20.3	0		3.6	91.4	5	0		
PHF	.861	.625	.884	.000	.899	.948	.948	.758	.000	.946	.865	.438	.536	.000	.771	.771	.896	.440	.000	.917	.975

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441 South Salina Street
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File Name : Soule Road AM
Site Code : 00000006
Start Date : 3/3/2010
Page No : 1

Groups Printed- Unshifted - Bank 1

	SR 481 SB Off Ramp Southbound					SR 31 Westbound					Soule Road Northbound					SR 31 Eastbound					
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
07:00 AM	12	7	52	0	71	0	70	49	0	119	38	0	11	0	49	97	65	0	0	162	401
07:15 AM	13	8	45	0	66	0	76	69	0	145	53	0	34	0	87	97	62	0	0	159	457
07:30 AM	7	8	60	0	75	0	97	63	0	160	26	0	21	0	47	121	85	0	0	206	488
07:45 AM	22	5	66	0	93	0	142	48	0	190	39	0	23	0	62	115	111	0	0	226	571
Total	54	28	223	0	305	0	385	229	0	614	156	0	89	0	245	430	323	0	0	753	1917
08:00 AM	14	6	38	0	58	0	103	54	0	157	33	0	37	0	70	141	61	0	0	202	487
08:15 AM	21	6	27	0	54	0	110	52	0	162	46	0	20	0	66	112	75	0	0	187	469
08:30 AM	12	9	27	0	48	0	126	55	0	181	25	0	23	0	48	81	67	0	0	148	425
08:45 AM	29	12	29	0	70	0	145	47	0	192	31	0	33	0	64	96	82	0	0	178	504
Total	76	33	121	0	230	0	484	208	0	692	135	0	113	0	248	430	285	0	0	715	1885
Grand Total	130	61	344	0	535	0	869	437	0	1306	291	0	202	0	493	860	608	0	0	1468	3802
Apprch %	24.3	11.4	64.3	0		0	66.5	33.5	0		59	0	41	0		58.6	41.4	0	0		
Total %	3.4	1.6	9	0	14.1	0	22.9	11.5	0	34.4	7.7	0	5.3	0	13	22.6	16	0	0	38.6	
Unshifted	130	61	344	0	535	0	869	437	0	1306	291	0	202	0	493	860	608	0	0	1468	3802
% Unshifted	100	100	100	0	100	0	100	100	0	100	100	0	100	0	100	100	100	0	0	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	SR 481 SB Off Ramp Southbound					SR 31 Westbound					Soule Road Northbound					SR 31 Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	7	**8**	60	0	75	0	97	**63**	0	160	26	0	21	0	47	121	85	0	0	206	488
07:45 AM	**22**	5	**66**	0	**93**	0	**142**	48	0	**190**	39	0	23	0	62	115	**111**	0	0	**226**	**571**
08:00 AM	14	6	38	0	58	0	103	54	0	157	33	0	**37**	0	**70**	**141**	61	0	0	202	487
08:15 AM	21	6	27	0	54	0	110	52	0	162	**46**	0	20	0	66	112	75	0	0	187	469
Total Volume	64	25	191	0	280	0	452	217	0	669	144	0	101	0	245	489	332	0	0	821	2015
% App. Total	22.9	8.9	68.2	0		0	67.6	32.4	0		58.8	0	41.2	0		59.6	40.4	0	0		
PHF	.727	.781	.723	.000	.753	.000	.796	.861	.000	.880	.783	.000	.682	.000	.875	.867	.748	.000	.000	.908	.882

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441 South Salina Street
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File Name : Soule Road PM
Site Code : 00000006
Start Date : 3/3/2010
Page No : 1

Groups Printed- Unshifted - Bank 1

	SR 481 SB Off Ramp Southbound					SR 31 Westbound					Soule Road Northbound					SR 31 Eastbound					
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	35	24	37	0	96	0	256	98	0	354	52	0	36	1	89	109	188	0	0	297	836
04:15 PM	25	16	33	0	74	0	309	112	0	421	50	0	51	1	102	135	199	0	0	334	931
04:30 PM	29	13	53	0	95	0	287	96	0	383	37	0	56	0	93	128	161	0	0	289	860
04:45 PM	38	24	42	0	104	0	352	117	0	469	40	0	59	0	99	111	181	0	0	292	964
Total	127	77	165	0	369	0	1204	423	0	1627	179	0	202	2	383	483	729	0	0	1212	3591
05:00 PM	32	17	35	0	84	0	348	109	0	457	40	0	46	0	86	110	221	0	0	331	958
05:15 PM	43	17	50	0	110	0	346	142	0	488	49	0	67	0	116	109	178	0	0	287	1001
05:30 PM	35	10	42	0	87	0	340	126	0	466	35	0	53	0	88	111	193	0	0	304	945
05:45 PM	30	16	36	0	82	0	288	115	0	403	40	0	57	0	97	79	165	0	0	244	826
Total	140	60	163	0	363	0	1322	492	0	1814	164	0	223	0	387	409	757	0	0	1166	3730
Grand Total	267	137	328	0	732	0	2526	915	0	3441	343	0	425	2	770	892	1486	0	0	2378	7321
Apprch %	36.5	18.7	44.8	0		0	73.4	26.6	0		44.5	0	55.2	0.3		37.5	62.5	0	0		
Total %	3.6	1.9	4.5	0	10	0	34.5	12.5	0	47	4.7	0	5.8	0	10.5	12.2	20.3	0	0	32.5	
Unshifted	267	137	328	0	732	0	2526	915	0	3441	343	0	425	2	770	892	1486	0	0	2378	7321
% Unshifted	100	100	100	0	100	0	100	100	0	100	100	0	100	100	100	100	100	0	0	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	SR 481 SB Off Ramp Southbound					SR 31 Westbound					Soule Road Northbound					SR 31 Eastbound					
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 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	38	**24**	42	0	104	0	**352**	117	0	469	40	0	59	0	99	**111**	181	0	0	292	964
05:00 PM	32	17	35	0	84	0	348	109	0	457	40	0	46	0	86	110	**221**	0	0	**331**	958
05:15 PM	**43**	17	**50**	0	**110**	0	346	**142**	0	**488**	**49**	0	**67**	0	**116**	109	178	0	0	287	**1001**
05:30 PM	35	10	42	0	87	0	340	126	0	466	35	0	53	0	88	111	193	0	0	304	945
Total Volume	148	68	169	0	385	0	1386	494	0	1880	164	0	225	0	389	441	773	0	0	1214	3868
% App. Total	38.4	17.7	43.9	0		0	73.7	26.3	0		42.2	0	57.8	0		36.3	63.7	0	0		
PHF	.860	.708	.845	.000	.875	.000	.984	.870	.000	.963	.837	.000	.840	.000	.838	.993	.874	.000	.000	.917	.966

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Syracsue, NY 13202

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File Name : SR 481 NB Off AM
Site Code : 00000007
Start Date : 3/2/2010
Page No : 1

Groups Printed- Unshifted - Bank 1

	Southbound					SR 31 Westbound					SR 481 NB Off Ramp Northbound					SR 31 Eastbound					
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
07:00 AM	0	0	0	0	0	37	85	0	0	122	7	10	33	0	50	0	143	26	0	169	341
07:15 AM	0	0	0	0	0	31	110	0	0	141	7	0	40	0	47	0	124	30	0	154	342
07:30 AM	0	0	0	0	0	25	120	0	0	145	8	0	64	0	72	0	144	24	0	168	385
07:45 AM	0	0	0	0	0	28	124	0	0	152	11	0	82	0	93	0	170	27	0	197	442
Total	0	0	0	0	0	121	439	0	0	560	33	10	219	0	262	0	581	107	0	688	1510
08:00 AM	0	0	0	0	0	26	103	0	0	129	18	0	54	0	72	0	124	18	0	142	343
08:15 AM	0	0	0	0	0	19	122	0	0	141	16	0	72	0	88	0	107	24	0	131	360
08:30 AM	0	0	0	0	0	30	131	0	0	161	11	0	69	0	80	0	117	33	0	150	391
08:45 AM	0	0	0	0	0	11	119	0	0	130	26	0	65	0	91	0	141	14	0	155	376
Total	0	0	0	0	0	86	475	0	0	561	71	0	260	0	331	0	489	89	0	578	1470
Grand Total	0	0	0	0	0	207	914	0	0	1121	104	10	479	0	593	0	1070	196	0	1266	2980
Apprch %	0	0	0	0		18.5	81.5	0	0		17.5	1.7	80.8	0		0	84.5	15.5	0		
Total %	0	0	0	0	0	6.9	30.7	0	0	37.6	3.5	0.3	16.1	0	19.9	0	35.9	6.6	0	42.5	
Unshifted	0	0	0	0	0	207	914	0	0	1121	104	10	479	0	593	0	1070	196	0	1266	2980
% Unshifted	0	0	0	0	0	100	100	0	0	100	100	100	100	0	100	0	100	100	0	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Southbound					SR 31 Westbound					SR 481 NB Off Ramp Northbound					SR 31 Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	0	0	0	0	0	28	124	0	0	152	11	0	**82**	0	**93**	0	**170**	27	0	**197**	**442**
08:00 AM	0	0	0	0	0	26	103	0	0	129	**18**	0	54	0	72	0	124	18	0	142	343
08:15 AM	0	0	0	0	0	19	122	0	0	141	16	0	72	0	88	0	107	24	0	131	360
08:30 AM	0	0	0	0	0	**30**	**131**	0	0	**161**	11	0	69	0	80	0	117	**33**	0	150	391
Total Volume	0	0	0	0	0	103	480	0	0	583	56	0	277	0	333	0	518	102	0	620	1536
% App. Total	0	0	0	0		17.7	82.3	0	0		16.8	0	83.2	0		0	83.5	16.5	0		
PHF	.000	.000	.000	.000	.000	.858	.916	.000	.000	.905	.778	.000	.845	.000	.895	.000	.762	.773	.000	.787	.869

0.93 0.87 0.81

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441 South Salina Street
Syracsue, NY 13202

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File Name : SR 481 NB Off PM
Site Code : 00000007
Start Date : 3/2/2010
Page No : 1

Groups Printed- Unshifted - Bank 1

	Southbound					SR 31 Westbound					SR 481 NB Off Ramp Northbound					SR 31 Eastbound					
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	0	0	0	0	55	200	0	0	255	74	0	175	0	249	0	215	44	0	259	763
04:15 PM	0	0	0	0	0	63	235	0	0	298	65	0	199	0	264	0	240	42	0	282	844
04:30 PM	0	0	0	0	0	76	229	0	0	305	95	0	182	0	277	0	244	53	0	297	879
04:45 PM	0	0	0	0	0	64	253	0	0	317	85	0	235	0	320	0	240	52	0	292	929
Total	0	0	0	0	0	258	917	0	0	1175	319	0	791	0	1110	0	939	191	0	1130	3415
05:00 PM	0	0	0	0	0	55	221	0	0	276	83	0	223	0	306	0	249	51	0	300	882
05:15 PM	0	0	0	0	0	54	246	0	0	300	70	0	270	0	340	0	233	34	0	267	907
05:30 PM	0	0	0	0	0	45	246	0	0	291	77	0	220	0	297	0	225	54	0	279	867
05:45 PM	0	0	0	0	0	51	238	0	0	289	58	0	176	0	234	0	221	49	0	270	793
Total	0	0	0	0	0	205	951	0	0	1156	288	0	889	0	1177	0	928	188	0	1116	3449
Grand Total	0	0	0	0	0	463	1868	0	0	2331	607	0	1680	0	2287	0	1867	379	0	2246	6864
Apprch %	0	0	0	0		19.9	80.1	0	0		26.5	0	73.5	0		0	83.1	16.9	0		
Total %	0	0	0	0	0	6.7	27.2	0	0	34	8.8	0	24.5	0	33.3	0	27.2	5.5	0	32.7	
Unshifted	0	0	0	0	0	463	1868	0	0	2331	607	0	1680	0	2287	0	1867	379	0	2246	6864
% Unshifted	0	0	0	0	0	100	100	0	0	100	100	0	100	0	100	0	100	100	0	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Southbound					SR 31 Westbound					SR 481 NB Off Ramp Northbound					SR 31 Eastbound					
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 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	0	0	0	0	0	**76**	229	0	0	305	**95**	0	182	0	277	0	244	**53**	0	297	879
04:45 PM	0	0	0	0	0	64	**253**	0	0	**317**	85	0	235	0	320	0	240	52	0	292	**929**
05:00 PM	0	0	0	0	0	55	221	0	0	276	83	0	223	0	306	0	**249**	51	0	**300**	882
05:15 PM	0	0	0	0	0	54	246	0	0	300	70	0	**270**	0	**340**	0	233	34	0	267	907
Total Volume	0	0	0	0	0	249	949	0	0	1198	333	0	910	0	1243	0	966	190	0	1156	3597
% App. Total	0	0	0	0		20.8	79.2	0	0		26.8	0	73.2	0		0	83.6	16.4	0		
PHF	.000	.000	.000	.000	.000	.819	.938	.000	.000	.945	.876	.000	.843	.000	.914	.000	.970	.896	.000	.963	.968

0.93 0.93 0.95

CHA, Inc

441 South Salina Street
Syracsue, NY 13202

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File Name : Market Fair AM
Site Code : 00000008
Start Date : 3/2/2010
Page No : 1

Groups Printed- Unshifted - Bank 1

	Southbound					SR 31 Westbound					Market Fair Mall Northbound					SR 31 Eastbound					
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
07:15 AM	0	0	0	0	0	0	114	1	0	115	0	0	0	0	0	2	92	0	0	94	209
07:30 AM	0	0	0	0	0	0	134	1	0	135	0	0	1	0	1	1	126	0	0	127	263
07:45 AM	0	0	0	0	0	0	155	0	0	155	1	0	1	0	2	4	175	0	0	179	336
Total	0	0	0	0	0	0	403	2	0	405	1	0	2	0	3	7	393	0	0	400	808
08:00 AM	0	0	0	0	0	0	143	7	0	150	3	0	2	0	5	13	159	0	0	172	327
08:15 AM	0	0	0	0	0	0	122	2	0	124	2	0	5	0	7	10	106	0	0	116	247
08:30 AM	0	0	0	0	0	0	149	1	0	150	3	0	4	0	7	5	112	0	0	117	274
08:45 AM	0	0	0	0	0	0	145	4	0	149	3	0	9	0	12	16	135	0	0	151	312
Total	0	0	0	0	0	0	559	14	0	573	11	0	20	0	31	44	512	0	0	556	1160
Grand Total	0	0	0	0	0	0	962	16	0	978	12	0	22	0	34	51	905	0	0	956	1968
Apprch %	0	0	0	0		0	98.4	1.6	0		35.3	0	64.7	0		5.3	94.7	0	0		
Total %	0	0	0	0	0	0	48.9	0.8	0	49.7	0.6	0	1.1	0	1.7	2.6	46	0	0	48.6	
Unshifted	0	0	0	0	0	0	962	16	0	978	12	0	22	0	34	51	905	0	0	956	1968
% Unshifted	0	0	0	0	0	0	100	100	0	100	100	0	100	0	100	100	100	0	0	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Southbound					SR 31 Westbound					Market Fair Mall Northbound					SR 31 Eastbound					
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 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	0	0	0	0	0	0	**155**	0	0	**155**	1	0	1	0	2	4	**175**	0	0	**179**	**336**
08:00 AM	0	0	0	0	0	0	143	**7**	0	150	**3**	0	2	0	5	**13**	159	0	0	172	327
08:15 AM	0	0	0	0	0	0	122	2	0	124	2	0	**5**	0	**7**	10	106	0	0	116	247
08:30 AM	0	0	0	0	0	0	149	1	0	150	3	0	4	0	7	5	112	0	0	117	274
Total Volume	0	0	0	0	0	0	569	10	0	579	9	0	12	0	21	32	552	0	0	584	1184
% App. Total	0	0	0	0		0	98.3	1.7	0		42.9	0	57.1	0		5.5	94.5	0	0		
PHF	.000	.000	.000	.000	.000	.000	.918	.357	.000	.934	.750	.000	.600	.000	.750	.615	.789	.000	.000	.816	.881

0.91 0.54 0.83

CHA, Inc

441 South Salina Street
Syracsue, NY 13202

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File Name : Market Fair PM
Site Code : 00000008
Start Date : 3/2/2010
Page No : 1

Groups Printed- Unshifted - Bank 1

	Southbound					SR 31 Westbound					Market Fair Mall Northbound					SR 31 Eastbound					
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	0	0	0	0	0	236	12	0	248	8	0	25	0	33	23	250	0	0	273	554
04:15 PM	0	0	0	0	0	0	267	10	0	277	10	0	31	0	41	24	286	0	0	310	628
04:30 PM	0	0	0	0	0	0	292	11	0	303	4	0	13	0	17	32	302	0	0	334	654
04:45 PM	0	0	0	0	0	0	284	18	0	302	12	0	29	0	41	24	298	0	0	322	665
Total	0	0	0	0	0	0	1079	51	0	1130	34	0	98	0	132	103	1136	0	0	1239	2501
05:00 PM	0	0	0	0	0	0	268	6	0	274	14	0	31	0	45	25	309	0	0	334	653
05:15 PM	0	0	0	0	0	0	279	12	0	291	9	0	28	0	37	34	268	0	0	302	630
05:30 PM	0	0	0	0	0	0	279	9	0	288	14	0	19	0	33	38	267	0	0	305	626
Grand Total	0	0	0	0	0	0	1905	78	0	1983	71	0	176	0	247	200	1980	0	0	2180	4410
Apprch %	0	0	0	0		0	96.1	3.9	0		28.7	0	71.3	0		9.2	90.8	0	0		
Total %	0	0	0	0	0	0	43.2	1.8	0	45	1.6	0	4	0	5.6	4.5	44.9	0	0	49.4	
Unshifted	0	0	0	0	0	0	1905	78	0	1983	71	0	176	0	247	200	1980	0	0	2180	4410
% Unshifted	0	0	0	0	0	0	100	100	0	100	100	0	100	0	100	100	100	0	0	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Southbound					SR 31 Westbound					Market Fair Mall Northbound					SR 31 Eastbound					
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 05:30 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	0	0	0	0	0	0	**292**	11	0	**303**	4	0	13	0	17	32	302	0	0	**334**	654
04:45 PM	0	0	0	0	0	0	284	**18**	0	302	12	0	29	0	41	24	298	0	0	322	**665**
05:00 PM	0	0	0	0	0	0	268	6	0	274	**14**	0	**31**	0	**45**	25	**309**	0	0	334	653
05:15 PM	0	0	0	0	0	0	279	12	0	291	9	0	28	0	37	**34**	268	0	0	302	630
Total Volume	0	0	0	0	0	0	1123	47	0	1170	39	0	101	0	140	115	1177	0	0	1292	2602
% App. Total	0	0	0	0		0	96	4	0		27.9	0	72.1	0		8.9	91.1	0	0		
PHF	.000	.000	.000	.000	.000	.000	.961	.653	.000	.965	.696	.000	.815	.000	.778	.846	.952	.000	.000	.967	.978

0.96 0.87 0.95

CHA, Inc
441 South Salina Street
Syracsue, NY 13202

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File Name : GNM West AM
Site Code : 00000009
Start Date : 2/24/2010
Page No : 1

Groups Printed- Unshifted - Bank 1

	Great Northern Mall West Southbound					NYS Route 31 Westbound					Driveway Northbound					NYS Route 31 Eastbound					
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
07:00 AM	10	0	1	0	11	2	124	1	0	127	0	0	0	0	0	1	130	10	0	141	279
07:15 AM	13	0	0	0	13	1	128	0	0	129	0	0	0	0	0	0	134	5	0	139	281
07:30 AM	7	0	0	0	7	1	127	0	0	128	0	0	1	0	1	1	137	6	0	144	280
07:45 AM	8	0	3	0	11	3	144	1	0	148	0	0	0	0	0	1	157	12	0	170	329
Total	38	0	4	0	42	7	523	2	0	532	0	0	1	0	1	3	558	33	0	594	1169
08:00 AM	9	0	0	0	9	0	119	0	0	119	0	0	0	0	0	0	124	14	0	138	266
08:15 AM	11	0	2	0	13	3	140	0	0	143	0	0	0	0	0	0	108	10	0	118	274
08:30 AM	20	0	0	0	20	3	139	0	0	142	0	0	0	0	0	0	106	28	0	134	296
08:45 AM	16	0	0	0	16	2	147	1	0	150	0	0	0	0	0	0	91	31	0	122	288
Total	56	0	2	0	58	8	545	1	0	554	0	0	0	0	0	0	429	83	0	512	1124
Grand Total	94	0	6	0	100	15	1068	3	0	1086	0	0	1	0	1	3	987	116	0	1106	2293
Apprch %	94	0	6	0		1.4	98.3	0.3	0		0	0	100	0		0.3	89.2	10.5	0		
Total %	4.1	0	0.3	0	4.4	0.7	46.6	0.1	0	47.4	0	0	0	0	0	0.1	43	5.1	0	48.2	
Unshifted	94	0	6	0	100	15	1068	3	0	1086	0	0	1	0	1	3	987	116	0	1106	2293
% Unshifted	100	0	100	0	100	100	100	100	0	100	0	0	100	0	100	100	100	100	0	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Great Northern Mall West Southbound					NYS Route 31 Westbound					Driveway Northbound					NYS Route 31 Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	10	0	1	0	11	2	124	**1**	0	127	0	0	0	0	0	**1**	130	10	0	141	279
07:15 AM	**13**	0	0	0	**13**	1	128	0	0	129	0	0	0	0	0	0	134	5	0	139	281
07:30 AM	7	0	0	0	7	1	127	0	0	128	0	0	**1**	0	**1**	1	137	6	0	144	280
07:45 AM	8	0	**3**	0	11	**3**	**144**	1	0	**148**	0	0	0	0	0	1	**157**	**12**	0	**170**	**329**
Total Volume	38	0	4	0	42	7	523	2	0	532	0	0	1	0	1	3	558	33	0	594	1169
% App. Total	90.5	0	9.5	0		1.3	98.3	0.4	0		0	0	100	0		0.5	93.9	5.6	0		
PHF	.731	.000	.333	.000	.808	.583	.908	.500	.000	.899	.000	.000	.250	.000	.250	.750	.889	.688	.000	.874	.888

0.77 0.94 0.25 0.84

CHA, Inc

441 South Salina Street
Syracsue, NY 13202

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File Name : GNM West PM
Site Code : 00000009
Start Date : 2/24/2010
Page No : 1

Groups Printed- Unshifted - Bank 1

	Great Northern Mall West Southbound					NYS Route 31 Westbound					Driveway Northbound					NYS Route 31 Eastbound					
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	86	0	10	0	96	20	179	2	0	201	0	0	0	0	0	3	169	68	0	240	537
04:15 PM	66	0	11	0	77	9	198	0	0	207	0	2	0	0	2	0	152	67	0	219	505
04:30 PM	68	0	11	0	79	9	186	0	0	195	0	0	0	0	0	0	189	90	0	279	553
04:45 PM	66	12	9	0	87	9	233	0	0	242	0	0	0	0	0	0	187	71	0	258	587
Total	286	12	41	0	339	47	796	2	0	845	0	2	0	0	2	3	697	296	0	996	2182
05:00 PM	87	0	11	0	98	13	200	0	0	213	0	0	0	0	0	0	182	91	0	273	584
05:15 PM	92	0	12	0	104	11	230	0	0	241	0	0	0	0	0	1	213	101	0	315	660
05:30 PM	102	0	5	0	107	11	206	0	0	217	0	0	0	0	0	0	177	88	0	265	589
05:45 PM	87	0	17	0	104	9	197	0	0	206	0	0	0	0	0	0	157	78	0	235	545
Total	368	0	45	0	413	44	833	0	0	877	0	0	0	0	0	1	729	358	0	1088	2378
Grand Total	654	12	86	0	752	91	1629	2	0	1722	0	2	0	0	2	4	1426	654	0	2084	4560
Apprch %	87	1.6	11.4	0		5.3	94.6	0.1	0		0	100	0	0		0.2	68.4	31.4	0		
Total %	14.3	0.3	1.9	0	16.5	2	35.7	0	0	37.8	0	0	0	0	0	0.1	31.3	14.3	0	45.7	
Unshifted	654	12	86	0	752	91	1629	2	0	1722	0	2	0	0	2	4	1426	654	0	2084	4560
% Unshifted	100	100	100	0	100	100	100	100	0	100	0	100	0	0	100	100	100	100	0	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Great Northern Mall West Southbound					NYS Route 31 Westbound					Driveway Northbound					NYS Route 31 Eastbound					
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 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	66	**12**	9	0	87	9	**233**	0	0	**242**	0	0	0	0	0	0	187	71	0	258	587
05:00 PM	87	0	11	0	98	**13**	200	0	0	213	0	0	0	0	0	0	182	91	0	273	584
05:15 PM	92	0	**12**	0	104	11	230	0	0	241	0	0	0	0	0	**1**	**213**	**101**	0	**315**	**660**
05:30 PM	**102**	0	5	0	**107**	11	206	0	0	217	0	0	0	0	0	0	177	88	0	265	589
Total Volume	347	12	37	0	396	44	869	0	0	913	0	0	0	0	0	1	759	351	0	1111	2420
% App. Total	87.6	3	9.3	0		4.8	95.2	0	0		0	0	0	0		0.1	68.3	31.6	0		
PHF	.850	.250	.771	.000	.925	.846	.932	.000	.000	.943	.000	.000	.000	.000	.000	.250	.891	.869	.000	.882	.917

ok

CHA, Inc

441 South Salina Street
Syracsue, NY 13202

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File Name : GNM East AM
Site Code : 00000010
Start Date : 2/24/2010
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Groups Printed- Unshifted - Bank 1

	Great Northern Mall East Southbound					NYS Route 31 Westbound					Driveway Northbound					NYS Route 31 Eastbound					
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
07:00 AM	6	0	2	0	8	3	94	8	0	105	11	0	10	0	21	15	107	10	0	132	266
07:15 AM	5	0	1	0	6	3	113	12	0	128	11	0	14	0	25	20	113	1	0	134	293
07:30 AM	3	1	1	0	5	3	105	15	0	123	10	1	16	0	27	14	118	5	0	137	292
07:45 AM	1	0	2	0	3	8	133	5	0	146	19	1	11	0	31	14	136	5	0	155	335
Total	15	1	6	0	22	17	445	40	0	502	51	2	51	0	104	63	474	21	0	558	1186
08:00 AM	2	0	1	0	3	2	102	17	0	121	8	1	11	0	20	23	95	5	0	123	267
08:15 AM	7	0	1	0	8	6	108	12	0	126	16	1	20	0	37	14	88	7	0	109	280
08:30 AM	4	0	2	0	6	2	119	15	0	136	4	3	24	0	31	20	73	10	0	103	276
08:45 AM	1	0	1	0	2	3	140	9	0	152	2	1	3	0	6	5	81	2	0	88	248
Total	14	0	5	0	19	13	469	53	0	535	30	6	58	0	94	62	337	24	0	423	1071
Grand Total	29	1	11	0	41	30	914	93	0	1037	81	8	109	0	198	125	811	45	0	981	2257
Apprch %	70.7	2.4	26.8	0		2.9	88.1	9	0		40.9	4	55.1	0		12.7	82.7	4.6	0		
Total %	1.3	0	0.5	0	1.8	1.3	40.5	4.1	0	45.9	3.6	0.4	4.8	0	8.8	5.5	35.9	2	0	43.5	
Unshifted	29	1	11	0	41	30	914	93	0	1037	81	8	109	0	198	125	811	45	0	981	2257
% Unshifted	100	100	100	0	100	100	100	100	0	100	100	100	100	0	100	100	100	100	0	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Great Northern Mall East Southbound					NYS Route 31 Westbound					Driveway Northbound					NYS Route 31 Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:30 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	**5**	0	1	0	**6**	3	113	12	0	128	11	0	14	0	25	20	113	1	0	134	293
07:30 AM	3	**1**	1	0	5	3	105	15	0	123	10	**1**	**16**	0	27	14	118	**5**	0	137	292
07:45 AM	1	0	**2**	0	3	**8**	**133**	5	0	**146**	**19**	1	11	0	**31**	14	**136**	5	0	**155**	**335**
08:00 AM	2	0	1	0	3	2	102	**17**	0	121	8	1	11	0	20	**23**	95	5	0	123	267
Total Volume	11	1	5	0	17	16	453	49	0	518	48	3	52	0	103	71	462	16	0	549	1187
% App. Total	64.7	5.9	29.4	0		3.1	87.5	9.5	0		46.6	2.9	50.5	0		12.9	84.2	2.9	0		
PHF	.550	.250	.625	.000	.708	.500	.852	.721	.000	.887	.632	.750	.813	.000	.831	.772	.849	.800	.000	.885	.886

0.59 0.88 0.78 0.85

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441 South Salina Street
Syracsue, NY 13202

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File Name : GNM East PM
Site Code : 00000010
Start Date : 2/24/2010

Groups Printed- Unshifted - Bank 1

	Great Northern Mall East Southbound					NYS Route 31 Westbound					Driveway Northbound					NYS Route 31 Eastbound					
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	14	0	8	0	22	12	168	2	0	182	6	1	3	0	10	4	188	15	0	207	421
04:15 PM	17	3	11	0	31	19	186	5	0	210	2	0	7	0	9	5	169	13	0	187	437
04:30 PM	20	1	19	0	40	15	167	3	0	185	7	0	8	0	15	9	184	13	0	206	446
04:45 PM	15	2	13	0	30	21	223	7	0	251	5	2	6	0	13	3	179	16	0	198	492
Total	66	6	51	0	123	67	744	17	0	828	20	3	24	0	47	21	720	57	0	798	1796
05:00 PM	25	2	13	0	40	8	186	3	0	197	4	0	4	0	8	5	184	18	0	207	452
05:15 PM	27	2	11	0	40	19	223	3	0	245	7	0	4	0	11	10	205	20	0	235	531
05:30 PM	29	1	7	0	37	15	175	5	0	195	4	0	12	0	16	9	168	10	0	187	435
05:45 PM	18	1	11	0	30	10	186	7	0	203	8	0	9	0	17	6	161	10	0	177	427
Total	99	6	42	0	147	52	770	18	0	840	23	0	29	0	52	30	718	58	0	806	1845
Grand Total	165	12	93	0	270	119	1514	35	0	1668	43	3	53	0	99	51	1438	115	0	1604	3641
Apprch %	61.1	4.4	34.4	0		7.1	90.8	2.1	0		43.4	3	53.5	0		3.2	89.7	7.2	0		
Total %	4.5	0.3	2.6	0	7.4	3.3	41.6	1	0	45.8	1.2	0.1	1.5	0	2.7	1.4	39.5	3.2	0	44.1	
Unshifted	165	12	93	0	270	119	1514	35	0	1668	43	3	53	0	99	51	1438	115	0	1604	3641
% Unshifted	100	100	100	0	100	100	100	100	0	100	100	100	100	0	100	100	100	100	0	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Great Northern Mall East Southbound					NYS Route 31 Westbound					Driveway Northbound					NYS Route 31 Eastbound					
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 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	20	1	**19**	0	**40**	15	167	3	0	185	**7**	0	**8**	0	**15**	9	184	13	0	206	446
04:45 PM	15	**2**	13	0	30	**21**	**223**	**7**	0	**251**	5	**2**	6	0	13	3	179	16	0	198	492
05:00 PM	25	2	13	0	40	8	186	3	0	197	4	0	4	0	8	5	184	18	0	207	452
05:15 PM	**27**	2	11	0	40	19	223	3	0	245	7	0	4	0	11	**10**	**205**	**20**	0	**235**	**531**
Total Volume	87	7	56	0	150	63	799	16	0	878	23	2	22	0	47	27	752	67	0	846	1921
% App. Total	58	4.7	37.3	0		7.2	91	1.8	0		48.9	4.3	46.8	0		3.2	88.9	7.9	0		
PHF	.806	.875	.737	.000	.938	.750	.896	.571	.000	.875	.821	.250	.688	.000	.783	.675	.917	.838	.000	.900	.904

0.92 0.91 0.75 0.90

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441 South Salina Street
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File Name : Morgan AM
Site Code : 00000011
Start Date : 3/16/2010
Page No : 1

Groups Printed- Unshifted - Bank 1

	Morgan Road Southbound					Westbound					Morgan Road Northbound					Eastbound					
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
07:00 AM	32	44	19	0	95	3	60	18	0	81	6	11	23	0	40	26	76	13	0	115	331
07:15 AM	52	48	19	0	119	3	52	12	0	67	8	16	23	0	47	37	61	8	0	106	339
07:30 AM	50	57	31	0	138	7	67	16	0	90	11	11	28	0	50	31	72	11	0	114	392
07:45 AM	45	43	21	0	109	3	69	25	0	97	12	6	23	0	41	36	100	13	0	149	396
Total	179	192	90	0	461	16	248	71	0	335	37	44	97	0	178	130	309	45	0	484	1458
08:00 AM	50	46	14	0	110	8	62	16	0	86	25	11	26	0	62	33	82	10	0	125	383
08:15 AM	38	32	13	0	83	3	60	16	0	79	6	8	18	0	32	35	62	17	0	114	308
08:30 AM	36	35	13	0	84	5	75	12	0	92	16	11	31	0	58	31	48	12	0	91	325
08:45 AM	40	23	11	0	74	4	70	11	0	85	15	5	34	0	54	32	51	9	0	92	305
Total	164	136	51	0	351	20	267	55	0	342	62	35	109	0	206	131	243	48	0	422	1321
Grand Total	343	328	141	0	812	36	515	126	0	677	99	79	206	0	384	261	552	93	0	906	2779
Apprch %	42.2	40.4	17.4	0		5.3	76.1	18.6	0		25.8	20.6	53.6	0		28.8	60.9	10.3	0		
Total %	12.3	11.8	5.1	0	29.2	1.3	18.5	4.5	0	24.4	3.6	2.8	7.4	0	13.8	9.4	19.9	3.3	0	32.6	
Unshifted	343	328	141	0	812	36	515	126	0	677	99	79	206	0	384	261	552	93	0	906	2779
% Unshifted	100	100	100	0	100	100	100	100	0	100	100	100	100	0	100	100	100	100	0	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Morgan Road Southbound					Westbound					Morgan Road Northbound					Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	**52**	48	19	0	119	3	52	12	0	67	8	**16**	23	0	47	**37**	61	8	0	106	339
07:30 AM	50	**57**	**31**	0	**138**	7	67	16	0	90	11	11	**28**	0	50	31	72	11	0	114	392
07:45 AM	45	43	21	0	109	3	**69**	**25**	0	**97**	12	6	23	0	41	36	**100**	**13**	0	**149**	**396**
08:00 AM	50	46	14	0	110	**8**	62	16	0	86	**25**	11	26	0	**62**	33	82	10	0	125	383
Total Volume	197	194	85	0	476	21	250	69	0	340	56	44	100	0	200	137	315	42	0	494	1510
% App. Total	41.4	40.8	17.9	0		6.2	73.5	20.3	0		28	22	50	0		27.7	63.8	8.5	0		
PHF	.947	.851	.685	.000	.862	.656	.906	.690	.000	.876	.560	.688	.893	.000	.806	.926	.788	.808	.000	.829	.953

7:30-9:30 0.80 0.91 0.75 0.84

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File Name : Morgan PM
Site Code : 00000011
Start Date : 3/16/2010
Page No : 1

Groups Printed- Unshifted - Bank 1

	Morgan Road Southbound					Westbound					Morgan Road Northbound					Eastbound					
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	28	28	16	0	72	17	95	17	0	129	13	42	66	0	121	56	91	50	0	197	519
04:15 PM	37	32	8	0	77	17	124	22	0	163	16	40	63	0	119	61	103	60	0	224	583
04:30 PM	27	30	19	0	76	14	110	25	0	149	15	48	81	0	144	53	88	70	0	211	580
04:45 PM	32	24	12	0	68	21	151	15	0	187	24	51	78	0	153	70	96	54	0	220	628
Total	124	114	55	0	293	69	480	79	0	628	68	181	288	0	537	240	378	234	0	852	2310
05:00 PM	31	26	12	0	69	23	108	10	0	141	22	66	78	0	166	49	104	66	0	219	595
05:15 PM	19	15	9	0	43	27	145	31	0	203	16	56	79	0	151	61	105	69	0	235	632
05:30 PM	34	29	9	0	72	12	105	19	0	136	8	54	72	0	134	54	100	62	0	216	558
05:45 PM	31	17	18	0	66	18	125	23	0	166	10	44	61	0	115	32	74	47	0	153	500
Total	115	87	48	0	250	80	483	83	0	646	56	220	290	0	566	196	383	244	0	823	2285
Grand Total	239	201	103	0	543	149	963	162	0	1274	124	401	578	0	1103	436	761	478	0	1675	4595
Apprch %	44	37	19	0		11.7	75.6	12.7	0		11.2	36.4	52.4	0		26	45.4	28.5	0		
Total %	5.2	4.4	2.2	0	11.8	3.2	21	3.5	0	27.7	2.7	8.7	12.6	0	24	9.5	16.6	10.4	0	36.5	
Unshifted	239	201	103	0	543	149	963	162	0	1274	124	401	578	0	1103	436	761	478	0	1675	4595
% Unshifted	100	100	100	0	100	100	100	100	0	100	100	100	100	0	100	100	100	100	0	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Morgan Road Southbound					Westbound					Morgan Road Northbound					Eastbound					
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 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	27	**30**	**19**	0	**76**	14	110	25	0	149	15	48	**81**	0	144	53	88	**70**	0	211	580
04:45 PM	**32**	24	12	0	68	21	**151**	15	0	187	**24**	51	78	0	153	**70**	96	54	0	220	628
05:00 PM	31	26	12	0	69	23	108	10	0	141	22	**66**	78	0	**166**	49	104	66	0	219	595
05:15 PM	19	15	9	0	43	**27**	145	**31**	0	**203**	16	56	79	0	151	61	**105**	69	0	**235**	**632**
Total Volume	109	95	52	0	256	85	514	81	0	680	77	221	316	0	614	233	393	259	0	885	2435
% App. Total	42.6	37.1	20.3	0		12.5	75.6	11.9	0		12.5	36	51.5	0		26.3	44.4	29.3	0		
PHF	.852	.792	.684	.000	.842	.787	.851	.653	.000	.837	.802	.837	.975	.000	.925	.832	.936	.925	.000	.941	.963

0.88 0.82 0.91 0.95

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File Name : Henry Clay AM
Site Code : 00000012
Start Date : 2/23/2010
Page No : 1

Groups Printed- Unshifted - Bank 1

	Henry Clay Blvd Southbound					NYS Route 31 Westbound					Henry Clay Blvd Northbound					NYS Route 31 Eastbound					
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
07:00 AM	2	18	6	0	26	0	47	20	0	67	17	11	29	0	57	28	58	2	0	88	238
07:15 AM	3	35	2	0	40	1	59	28	0	88	11	6	19	0	36	58	66	3	0	127	291
07:30 AM	3	34	6	0	43	4	69	24	0	97	13	8	21	0	42	53	60	3	0	116	298
07:45 AM	5	26	2	0	33	1	76	32	0	109	15	11	28	0	54	46	88	1	0	135	331
Total	13	113	16	0	142	6	251	104	0	361	56	36	97	0	189	185	272	9	0	466	1158
08:00 AM	6	12	1	0	19	2	53	22	0	77	14	7	16	0	37	52	62	4	0	118	251
08:15 AM	8	11	4	0	23	0	61	14	0	75	19	4	18	0	41	24	57	1	0	82	221
08:30 AM	3	13	2	0	18	1	69	13	0	83	11	4	28	0	43	19	41	1	0	61	205
08:45 AM	3	14	2	0	19	1	61	17	0	79	13	5	27	0	45	17	62	2	0	81	224
Total	20	50	9	0	79	4	244	66	0	314	57	20	89	0	166	112	222	8	0	342	901
Grand Total	33	163	25	0	221	10	495	170	0	675	113	56	186	0	355	297	494	17	0	808	2059
Apprch %	14.9	73.8	11.3	0		1.5	73.3	25.2	0		31.8	15.8	52.4	0		36.8	61.1	2.1	0		
Total %	1.6	7.9	1.2	0	10.7	0.5	24	8.3	0	32.8	5.5	2.7	9	0	17.2	14.4	24	0.8	0	39.2	
Unshifted	33	163	25	0	221	10	495	170	0	675	113	56	186	0	355	297	494	17	0	808	2059
% Unshifted	100	100	100	0	100	100	100	100	0	100	100	100	100	0	100	100	100	100	0	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Henry Clay Blvd Southbound					NYS Route 31 Westbound					Henry Clay Blvd Northbound					NYS Route 31 Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	3	**35**	2	0	40	1	59	28	0	88	11	6	19	0	36	**58**	66	3	0	127	291
07:30 AM	3	34	**6**	0	**43**	**4**	69	24	0	97	13	8	21	0	42	53	60	3	0	116	298
07:45 AM	5	26	2	0	33	1	**76**	**32**	0	**109**	**15**	**11**	**28**	0	**54**	46	**88**	1	0	**135**	**331**
08:00 AM	**6**	12	1	0	19	2	53	22	0	77	14	7	16	0	37	52	62	**4**	0	118	251
Total Volume	17	107	11	0	135	8	257	106	0	371	53	32	84	0	169	209	276	11	0	496	1171
% App. Total	12.6	79.3	8.1	0		2.2	69.3	28.6	0		31.4	18.9	49.7	0		42.1	55.6	2.2	0		
PHF	.708	.764	.458	.000	.785	.500	.845	.828	.000	.851	.883	.727	.750	.000	.782	.901	.784	.688	.000	.919	.884

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File Name : Henry Clay PM
Site Code : 00000012
Start Date : 2/23/2010
Page No : 1

Groups Printed- Unshifted - Bank 1

	Henry Clay Blvd Southbound					NYS Route 31 Westbound					Henry Clay Blvd Northbound					NYS Route 31 Eastbound					
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	10	1	0	13	9	83	16	0	108	23	32	50	0	105	21	79	2	0	102	328
04:15 PM	2	14	4	0	20	9	104	8	0	121	28	28	49	0	105	14	86	2	0	102	348
04:30 PM	3	25	1	0	29	7	101	25	0	133	27	38	63	0	128	39	86	3	0	128	418
04:45 PM	1	10	2	0	13	7	97	14	0	118	22	39	73	0	134	28	106	1	0	135	400
Total	8	59	8	0	75	32	385	63	0	480	100	137	235	0	472	102	357	8	0	467	1494
05:00 PM	6	9	2	0	17	11	88	15	0	114	34	40	49	0	123	14	73	1	0	88	342
05:15 PM	2	6	2	0	10	7	99	15	0	121	24	36	60	0	120	20	93	2	0	115	366
05:30 PM	2	7	2	0	11	2	103	8	0	113	31	17	48	0	96	26	78	0	0	104	324
05:45 PM	1	11	4	0	16	1	85	10	0	96	23	21	44	0	88	17	79	4	0	100	300
Total	11	33	10	0	54	21	375	48	0	444	112	114	201	0	427	77	323	7	0	407	1332
Grand Total	19	92	18	0	129	53	760	111	0	924	212	251	436	0	899	179	680	15	0	874	2826
Apprch %	14.7	71.3	14	0		5.7	82.3	12	0		23.6	27.9	48.5	0		20.5	77.8	1.7	0		
Total %	0.7	3.3	0.6	0	4.6	1.9	26.9	3.9	0	32.7	7.5	8.9	15.4	0	31.8	6.3	24.1	0.5	0	30.9	
Unshifted	19	92	18	0	129	53	760	111	0	924	212	251	436	0	899	179	680	15	0	874	2826
% Unshifted	100	100	100	0	100	100	100	100	0	100	100	100	100	0	100	100	100	100	0	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Henry Clay Blvd Southbound					NYS Route 31 Westbound					Henry Clay Blvd Northbound					NYS Route 31 Eastbound					
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 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	3	**25**	1	0	**29**	7	**101**	**25**	0	**133**	27	38	63	0	128	**39**	86	**3**	0	128	**418**
04:45 PM	1	10	**2**	0	13	7	97	14	0	118	22	39	**73**	0	**134**	28	**106**	1	0	**135**	400
05:00 PM	**6**	9	2	0	17	**11**	88	15	0	114	**34**	**40**	49	0	123	14	73	1	0	88	342
05:15 PM	2	6	2	0	10	7	99	15	0	121	24	36	60	0	120	20	93	2	0	115	366
Total Volume	12	50	7	0	69	32	385	69	0	486	107	153	245	0	505	101	358	7	0	466	1526
% App. Total	17.4	72.5	10.1	0		6.6	79.2	14.2	0		21.2	30.3	48.5	0		21.7	76.8	1.5	0		
PHF	.500	.500	.875	.000	.595	.727	.953	.690	.000	.914	.787	.956	.839	.000	.942	.647	.844	.583	.000	.863	.913

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File Name : Caughdenoy AM
Site Code : 00000013
Start Date : 3/16/2010
Page No : 1

Groups Printed- Unshifted - Bank 1

	Caughdenoy Road Southbound					SR 31 Westbound					Caughdenoy Road Northbound					SR 31 Eastbound					
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
07:00 AM	1	0	2	0	3	1	78	2	0	81	7	2	4	0	13	2	61	7	0	70	167
07:15 AM	5	2	10	0	17	2	57	0	0	59	7	2	5	0	14	6	72	2	0	80	170
07:30 AM	4	0	13	0	17	4	77	4	0	85	12	2	11	0	25	5	64	2	0	71	198
07:45 AM	4	0	16	0	20	8	84	2	0	94	12	5	9	0	26	3	96	7	0	106	246
Total	14	2	41	0	57	15	296	8	0	319	38	11	29	0	78	16	293	18	0	327	781
08:00 AM	5	2	10	0	17	1	77	4	0	82	6	1	6	0	13	5	82	4	0	91	203
08:15 AM	4	3	5	0	12	1	60	1	0	62	4	3	4	0	11	2	58	6	0	66	151
08:30 AM	7	4	5	0	16	0	80	0	0	80	4	3	6	0	13	1	68	3	0	72	181
08:45 AM	5	0	8	0	13	3	56	1	0	60	2	2	7	0	11	6	72	4	0	82	166
Total	21	9	28	0	58	5	273	6	0	284	16	9	23	0	48	14	280	17	0	311	701
Grand Total	35	11	69	0	115	20	569	14	0	603	54	20	52	0	126	30	573	35	0	638	1482
Apprch %	30.4	9.6	60	0		3.3	94.4	2.3	0		42.9	15.9	41.3	0		4.7	89.8	5.5	0		
Total %	2.4	0.7	4.7	0	7.8	1.3	38.4	0.9	0	40.7	3.6	1.3	3.5	0	8.5	2	38.7	2.4	0	43	
Unshifted	35	11	69	0	115	20	569	14	0	603	54	20	52	0	126	30	573	35	0	638	1482
% Unshifted	100	100	100	0	100	100	100	100	0	100	100	100	100	0	100	100	100	100	0	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Caughdenoy Road Southbound					SR 31 Westbound					Caughdenoy Road Northbound					SR 31 Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	**5**	**2**	10	0	17	2	57	0	0	59	7	2	5	0	14	**6**	72	2	0	80	170
07:30 AM	4	0	13	0	17	4	77	**4**	0	85	**12**	2	**11**	0	25	5	64	2	0	71	198
07:45 AM	4	0	**16**	0	**20**	**8**	**84**	2	0	**94**	12	**5**	9	0	**26**	3	**96**	**7**	0	**106**	**246**
08:00 AM	5	2	10	0	17	1	77	4	0	82	6	1	6	0	13	5	82	4	0	91	203
Total Volume	18	4	49	0	71	15	295	10	0	320	37	10	31	0	78	19	314	15	0	348	817
% App. Total	25.4	5.6	69	0		4.7	92.2	3.1	0		47.4	12.8	39.7	0		5.5	90.2	4.3	0		
PHF	.900	.500	.766	.000	.888	.469	.878	.625	.000	.851	.771	.500	.705	.000	.750	.792	.818	.536	.000	.821	.830

CHA, Inc

441 South Salina Street
Syracsue, NY 13202

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File Name : Caughdenoy PM
Site Code : 00000013
Start Date : 3/16/2010
Page No : 1

Groups Printed- Unshifted - Bank 1

	Caughdenoy Road Southbound					SR 31 Westbound					Caughdenoy Road Northbound					SR 31 Eastbound					
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	6	3	2	0	11	2	91	3	0	96	2	13	7	0	22	9	80	3	0	92	221
04:15 PM	5	2	8	0	15	7	107	4	0	118	3	14	4	0	21	8	103	5	0	116	270
04:30 PM	6	3	9	0	18	10	110	4	0	124	7	7	3	0	17	4	108	4	0	116	275
04:45 PM	3	5	3	0	11	8	86	3	0	97	7	8	7	0	22	12	98	8	0	118	248
Total	20	13	22	0	55	27	394	14	0	435	19	42	21	0	82	33	389	20	0	442	1014
05:00 PM	2	4	4	0	10	3	118	4	0	125	2	10	8	0	20	8	112	8	0	128	283
05:15 PM	1	3	1	0	5	3	119	3	0	125	7	16	11	0	34	6	104	9	0	119	283
05:30 PM	1	6	5	0	12	5	94	5	0	104	4	10	8	0	22	3	91	10	0	104	242
05:45 PM	3	5	1	0	9	8	117	2	0	127	6	7	8	0	21	4	83	5	0	92	249
Total	7	18	11	0	36	19	448	14	0	481	19	43	35	0	97	21	390	32	0	443	1057
Grand Total	27	31	33	0	91	46	842	28	0	916	38	85	56	0	179	54	779	52	0	885	2071
Apprch %	29.7	34.1	36.3	0		5	91.9	3.1	0		21.2	47.5	31.3	0		6.1	88	5.9	0		
Total %	1.3	1.5	1.6	0	4.4	2.2	40.7	1.4	0	44.2	1.8	4.1	2.7	0	8.6	2.6	37.6	2.5	0	42.7	
Unshifted	27	31	33	0	91	46	842	28	0	916	38	85	56	0	179	54	779	52	0	885	2071
% Unshifted	100	100	100	0	100	100	100	100	0	100	100	100	100	0	100	100	100	100	0	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Caughdenoy Road Southbound					SR 31 Westbound					Caughdenoy Road Northbound					SR 31 Eastbound					
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 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	**6**	3	**9**	0	**18**	**10**	110	**4**	0	124	**7**	7	3	0	17	4	108	4	0	116	275
04:45 PM	3	**5**	3	0	11	8	86	3	0	97	7	8	7	0	22	**12**	98	8	0	118	248
05:00 PM	2	4	4	0	10	3	118	4	0	**125**	2	10	8	0	20	8	**112**	8	0	**128**	**283**
05:15 PM	1	3	1	0	5	3	**119**	3	0	125	7	**16**	**11**	0	**34**	6	104	**9**	0	119	283
Total Volume	12	15	17	0	44	24	433	14	0	471	23	41	29	0	93	30	422	29	0	481	1089
% App. Total	27.3	34.1	38.6	0		5.1	91.9	3	0		24.7	44.1	31.2	0		6.2	87.7	6	0		
PHF	.500	.750	.472	.000	.611	.600	.910	.875	.000	.942	.821	.641	.659	.000	.684	.625	.942	.806	.000	.939	.962

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File Name : Route 11 AM
Site Code : 00000014
Start Date : 3/24/2010
Page No : 1

Groups Printed- Unshifted - Bank 1

	US Rte. 11 Southbound					SR 31 Westbound					US Rte. 11 Northbound					SR 31 Eastbound					
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
07:00 AM	6	20	17	0	43	17	59	49	0	125	79	10	7	0	96	7	149	10	0	166	430
07:15 AM	15	25	29	0	69	39	65	54	0	158	59	18	5	0	82	10	130	14	0	154	463
07:30 AM	1	33	29	0	63	23	75	60	0	158	41	19	12	0	72	11	132	13	0	156	449
07:45 AM	6	31	24	0	61	27	75	55	0	157	40	18	7	0	65	11	137	15	0	163	446
Total	28	109	99	0	236	106	274	218	0	598	219	65	31	0	315	39	548	52	0	639	1788
08:00 AM	1	30	33	0	64	25	80	60	0	165	32	15	9	0	56	10	135	14	0	159	444
08:15 AM	1	22	26	0	49	15	53	64	0	132	37	27	15	0	79	13	120	10	0	143	403
08:30 AM	10	29	21	0	60	23	67	64	0	154	31	19	8	0	58	9	88	8	0	105	377
08:45 AM	7	27	42	0	76	26	51	61	0	138	46	23	6	0	75	22	77	11	0	110	399
Total	19	108	122	0	249	89	251	249	0	589	146	84	38	0	268	54	420	43	0	517	1623
Grand Total	47	217	221	0	485	195	525	467	0	1187	365	149	69	0	583	93	968	95	0	1156	3411
Apprch %	9.7	44.7	45.6	0		16.4	44.2	39.3	0		62.6	25.6	11.8	0		8	83.7	8.2	0		
Total %	1.4	6.4	6.5	0	14.2	5.7	15.4	13.7	0	34.8	10.7	4.4	2	0	17.1	2.7	28.4	2.8	0	33.9	
Unshifted	47	217	221	0	485	195	525	467	0	1187	365	149	69	0	583	93	968	95	0	1156	3411
% Unshifted	100	100	100	0	100	100	100	100	0	100	100	100	100	0	100	100	100	100	0	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	US Rte. 11 Southbound					SR 31 Westbound					US Rte. 11 Northbound					SR 31 Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	**15**	25	29	0	**69**	**39**	65	54	0	158	**59**	18	5	0	**82**	10	130	14	0	154	**463**
07:30 AM	1	**33**	29	0	63	23	75	**60**	0	158	41	**19**	**12**	0	72	**11**	132	13	0	156	449
07:45 AM	6	31	24	0	61	27	75	55	0	157	40	18	7	0	65	11	**137**	**15**	0	**163**	446
08:00 AM	1	30	**33**	0	64	25	**80**	60	0	**165**	32	15	9	0	56	10	135	14	0	159	444
Total Volume	23	119	115	0	257	114	295	229	0	638	172	70	33	0	275	42	534	56	0	632	1802
% App. Total	8.9	46.3	44.7	0		17.9	46.2	35.9	0		62.5	25.5	12	0		6.6	84.5	8.9	0		
PHF	.383	.902	.871	.000	.931	.731	.922	.954	.000	.967	.729	.921	.688	.000	.838	.955	.974	.933	.000	.969	.973

0.93 0.93 0.86 0.95

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441 South Salina Street
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File Name : Route 11 PM
Site Code : 00000014
Start Date : 3/24/2010
Page No : 1

Groups Printed- Unshifted - Bank 1

	US Rte. 11 Southbound					SR 31 Westbound					US Rte. 11 Northbound					SR 31 Eastbound					
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	14	38	40	0	92	33	90	83	0	206	123	56	32	0	211	16	78	17	0	111	620
04:15 PM	15	30	26	0	71	61	101	101	0	263	128	78	30	0	236	13	95	13	0	121	691
04:30 PM	25	52	56	0	133	35	88	89	0	212	133	83	31	0	247	18	105	26	0	149	741
04:45 PM	19	36	35	0	90	47	116	103	0	266	101	46	36	0	183	24	105	13	0	142	681
Total	73	156	157	0	386	176	395	376	0	947	485	263	129	0	877	71	383	69	0	523	2733
05:00 PM	15	44	39	0	98	41	127	84	0	252	136	73	29	0	238	15	101	20	0	136	724
05:15 PM	20	38	31	0	89	58	121	81	0	260	116	64	27	2	209	14	116	11	0	141	699
05:30 PM	18	43	26	0	87	41	116	85	0	242	115	59	27	0	201	28	100	15	0	143	673
05:45 PM	10	39	33	0	82	50	107	109	0	266	120	58	24	0	202	19	87	20	0	126	676
Total	63	164	129	0	356	190	471	359	0	1020	487	254	107	2	850	76	404	66	0	546	2772
Grand Total	136	320	286	0	742	366	866	735	0	1967	972	517	236	2	1727	147	787	135	0	1069	5505
Apprch %	18.3	43.1	38.5	0		18.6	44	37.4	0		56.3	29.9	13.7	0.1		13.8	73.6	12.6	0		
Total %	2.5	5.8	5.2	0	13.5	6.6	15.7	13.4	0	35.7	17.7	9.4	4.3	0	31.4	2.7	14.3	2.5	0	19.4	
Unshifted	136	320	286	0	742	366	866	735	0	1967	972	517	236	2	1727	147	787	135	0	1069	5505
% Unshifted	100	100	100	0	100	100	100	100	0	100	100	100	100	100	100	100	100	100	0	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	US Rte. 11 Southbound					SR 31 Westbound					US Rte. 11 Northbound					SR 31 Eastbound					
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 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	**25**	**52**	**56**	0	**133**	35	88	89	0	212	133	**83**	31	0	**247**	18	105	**26**	0	**149**	**741**
04:45 PM	19	36	35	0	90	47	116	**103**	0	**266**	101	46	**36**	0	183	**24**	105	13	0	142	681
05:00 PM	15	44	39	0	98	41	**127**	84	0	252	**136**	73	29	0	238	15	101	20	0	136	724
05:15 PM	20	38	31	0	89	**58**	121	81	0	260	116	64	27	**2**	209	14	**116**	11	0	141	699
Total Volume	79	170	161	0	410	181	452	357	0	990	486	266	123	2	877	71	427	70	0	568	2845
% App. Total	19.3	41.5	39.3	0		18.3	45.7	36.1	0		55.4	30.3	14	0.2		12.5	75.2	12.3	0		
PHF	.790	.817	.719	.000	.771	.780	.890	.867	.000	.930	.893	.801	.854	.250	.888	.740	.920	.673	.000	.953	.960

0.93 0.96 0.87 0.98

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File Name : I 81 SB AM
Site Code : 00000015
Start Date : 3/23/2010
Page No : 1

Groups Printed- Unshifted - Bank 1

	I-81 SB Off Ramp Southbound					SR 31 Westbound					Northbound					SR 31 Eastbound					
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
07:00 AM	37	0	22	0	59	0	137	150	0	287	0	0	0	0	0	82	179	0	0	261	607
07:15 AM	34	0	27	0	61	0	133	160	0	293	0	0	0	0	0	105	138	0	0	243	597
07:30 AM	34	0	30	0	64	0	146	169	0	315	0	0	0	0	0	119	99	0	0	218	597
07:45 AM	35	0	27	0	62	0	120	133	0	253	0	0	0	0	0	92	117	0	0	209	524
Total	140	0	106	0	246	0	536	612	0	1148	0	0	0	0	0	398	533	0	0	931	2325
08:00 AM	31	0	15	0	46	0	131	168	0	299	0	0	0	0	0	75	103	0	0	178	523
08:15 AM	32	0	22	0	54	0	136	100	0	236	0	0	0	0	0	62	102	0	0	164	454
08:30 AM	29	0	20	0	49	0	153	113	0	266	0	0	0	0	0	65	110	0	0	175	490
Grand Total	232	0	163	0	395	0	956	993	0	1949	0	0	0	0	0	600	848	0	0	1448	3792
Apprch %	58.7	0	41.3	0		0	49.1	50.9	0		0	0	0	0		41.4	58.6	0	0		
Total %	6.1	0	4.3	0	10.4	0	25.2	26.2	0	51.4	0	0	0	0	0	15.8	22.4	0	0	38.2	
Unshifted	232	0	163	0	395	0	956	993	0	1949	0	0	0	0	0	600	848	0	0	1448	3792
% Unshifted	100	0	100	0	100	0	100	100	0	100	0	0	0	0	0	100	100	0	0	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	I-81 SB Off Ramp Southbound					SR 31 Westbound					Northbound					SR 31 Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:30 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	**37**	0	22	0	59	0	137	150	0	287	0	0	0	0	0	82	**179**	0	0	**261**	**607**
07:15 AM	34	0	27	0	61	0	133	160	0	293	0	0	0	0	0	105	138	0	0	243	597
07:30 AM	34	0	**30**	0	**64**	0	**146**	**169**	0	**315**	0	0	0	0	0	**119**	99	0	0	218	597
07:45 AM	35	0	27	0	62	0	120	133	0	253	0	0	0	0	0	92	117	0	0	209	524
Total Volume	140	0	106	0	246	0	536	612	0	1148	0	0	0	0	0	398	533	0	0	931	2325
% App. Total	56.9	0	43.1	0		0	46.7	53.3	0		0	0	0	0		42.7	57.3	0	0		
PHF	.946	.000	.883	.000	.961	.000	.918	.905	.000	.911	.000	.000	.000	.000	.000	.836	.744	.000	.000	.892	.958

0.88 0.88 0.88

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File Name : I 81 SB PM
Site Code : 00000015
Start Date : 3/23/2010
Page No : 1

Groups Printed- Unshifted - Bank 1

	I-81 SB Off Ramp Southbound					SR 31 Westbound					Northbound					SR 31 Eastbound					
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	17	0	9	0	26	0	88	29	0	117	0	0	0	0	0	15	124	0	0	139	282
04:15 PM	30	0	23	0	53	0	219	60	0	279	0	0	0	0	0	47	209	0	0	256	588
04:30 PM	26	0	29	0	55	0	230	75	0	305	0	0	0	0	0	55	191	0	0	246	606
04:45 PM	23	0	28	0	51	0	222	56	0	278	0	0	0	0	0	62	239	0	0	301	630
Total	96	0	89	0	185	0	759	220	0	979	0	0	0	0	0	179	763	0	0	942	2106
05:00 PM	31	0	16	0	47	0	230	69	0	299	0	0	0	0	0	50	190	0	0	240	586
05:15 PM	32	0	24	0	56	0	250	77	0	327	0	0	0	0	0	51	246	0	0	297	680
05:30 PM	24	0	24	0	48	0	237	75	0	312	0	0	0	0	0	56	218	0	0	274	634
05:45 PM	29	0	23	0	52	0	204	62	0	266	0	0	0	0	0	36	202	0	0	238	556
Total	116	0	87	0	203	0	921	283	0	1204	0	0	0	0	0	193	856	0	0	1049	2456
Grand Total	212	0	176	0	388	0	1680	503	0	2183	0	0	0	0	0	372	1619	0	0	1991	4562
Apprch %	54.6	0	45.4	0		0	77	23	0		0	0	0	0		18.7	81.3	0	0		
Total %	4.6	0	3.9	0	8.5	0	36.8	11	0	47.9	0	0	0	0	0	8.2	35.5	0	0	43.6	
Unshifted	212	0	176	0	388	0	1680	503	0	2183	0	0	0	0	0	372	1619	0	0	1991	4562
% Unshifted	100	0	100	0	100	0	100	100	0	100	0	0	0	0	0	100	100	0	0	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	I-81 SB Off Ramp Southbound					SR 31 Westbound					Northbound					SR 31 Eastbound					
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 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	23	0	**28**	0	51	0	222	56	0	278	0	0	0	0	0	**62**	239	0	0	**301**	630
05:00 PM	31	0	16	0	47	0	230	69	0	299	0	0	0	0	0	50	190	0	0	240	586
05:15 PM	**32**	0	24	0	**56**	0	**250**	**77**	0	**327**	0	0	0	0	0	51	**246**	0	0	297	**680**
05:30 PM	24	0	24	0	48	0	237	75	0	312	0	0	0	0	0	56	218	0	0	274	634
Total Volume	110	0	92	0	202	0	939	277	0	1216	0	0	0	0	0	219	893	0	0	1112	2530
% App. Total	54.5	0	45.5	0		0	77.2	22.8	0		0	0	0	0		19.7	80.3	0	0		
PHF	.859	.000	.821	.000	.902	.000	.939	.899	.000	.930	.000	.000	.000	.000	.000	.883	.908	.000	.000	.924	.930

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Groups Printed- Unshifted - Bank 1

	Pardee Rd Southbound					SR 31 Westbound					I-81 NB Off Ramp Northbound					SR 31 Eastbound					
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
07:00 AM	22	7	2	0	31	19	186	0	2	207	88	18	22	0	128	0	165	24	1	190	556
07:15 AM	25	0	0	0	25	16	232	0	0	248	64	7	34	0	105	0	168	26	2	196	574
07:30 AM	39	0	2	0	41	16	256	0	0	272	42	8	22	1	73	1	~~116~~ 117	16	0	133	519
07:45 AM	~~35~~ 36	~~1~~ 0	2	0	38	24	205	0	0	229	47	9	28	0	84	0	117	26	0	143	494
Total	121	8	6	0	135	75	879	0	2	956	241	42	106	1	390	1	566	92	3	662	2143
08:00 AM	32	0	1	0	33	16	213	0	1	230	41	12	28	0	81	0	118	26	0	144	488
08:15 AM	~~21~~ 26	~~5~~ 0	6	0	32	26	187	0	0	213	41	6	35	0	82	0	93	25	1	119	446
08:30 AM	10	0	0	0	10	30	194	0	0	224	33	9	32	0	74	3	108	19	2	132	440
08:45 AM	28	0	3	0	31	20	202	0	0	222	36	6	40	0	82	1	111	22	0	134	469
Total	91	5	10	0	106	92	796	0	1	889	151	33	135	0	319	4	430	92	3	529	1843
Grand Total	212	13	16	0	241	167	1675	0	3	1845	392	75	241	1	709	5	996	184	6	1191	3986
Apprch %	88	5.4	6.6	0		9.1	90.8	0	0.2		55.3	10.6	34	0.1		0.4	83.6	15.4	0.5		
Total %	5.3	0.3	0.4	0	6	4.2	42	0	0.1	46.3	9.8	1.9	6	0	17.8	0.1	25	4.6	0.2	29.9	
Unshifted	212	13	16	0	241	167	1675	0	3	1845	392	75	241	1	709	5	996	184	6	1191	3986
% Unshifted	100	100	100	0	100	100	100	0	100	100	100	100	100	100	100	100	100	100	100	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Pardee Rd Southbound					SR 31 Westbound					I-81 NB Off Ramp Northbound					SR 31 Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	22	**7**	**2**	0	31	19	186	0	**2**	207	**88**	**18**	22	0	**128**	0	165	24	1	190	556
07:15 AM	25	0	0	0	25	16	232	0	0	248	64	7	**34**	0	105	0	**168**	**26**	**2**	**196**	**574**
07:30 AM	**39**	0	2	0	**41**	16	**256**	0	0	**272**	42	8	22	**1**	73	**1**	116	16	0	133	519
07:45 AM	35	1	2	0	38	**24**	205	0	0	229	47	9	28	0	84	0	117	26	0	143	494
Total Volume	121	8	6	0	135	75	879	0	2	956	241	42	106	1	390	1	566	92	3	662	2143
% App. Total	89.6	5.9	4.4	0		7.8	91.9	0	0.2		61.8	10.8	27.2	0.3		0.2	85.5	13.9	0.5		
PHF	.776	.286	.750	.000	.823	.781	.858	.000	.250	.879	.685	.583	.779	.250	.762	.250	.842	.885	.375	.844	.933

0.88 0.87 0.98 0.94

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Groups Printed- Unshifted - Bank 1

	Pardee Rd Southbound					**SR 31 Westbound**					**I-81 NB Off Ramp Northbound**					**SR 31 Eastbound**					
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	23	1	7	0	31	43	174	0	0	217	107	16	62	0	185	0	173	77	0	250	683
04:15 PM	16	1	4	0	21	32	187	0	1	220	121	21	73	0	215	0	194	64	2	260	716
04:30 PM	32	0	3	0	35	38	203	0	0	241	134	26	82	0	242	0	148	61	0	209	727
04:45 PM	32	0	9	0	41	40	174	0	0	214	159	29	71	0	259	0	202	66	0	268	782
Total	103	2	23	0	128	153	738	0	1	892	521	92	288	0	901	0	717	268	2	987	2908
05:00 PM	~~32~~ 33	1	0	0	33	43	222	0	0	265	161	28	86	0	275	0	204	49	2	255	828
05:15 PM	17	0	7	0	24	40	212	4	3	259	172	23	87	0	282	0	192	67	0	259	824
05:30 PM	24	0	0	0	24	42	184	0	0	226	145	30	68	0	243	1	181	71	0	253	746
05:45 PM	40	0	2	0	42	28	157	0	0	185	110	20	71	0	201	0	149	70	0	219	647
Total	113	1	9	0	123	153	775	4	3	935	588	101	312	0	1001	1	726	257	2	986	3045
Grand Total	216	3	32	0	251	306	1513	4	4	1827	1109	193	600	0	1902	1	1443	525	4	1973	5953
Apprch %	86.1	1.2	12.7	0		16.7	82.8	0.2	0.2		58.3	10.1	31.5	0		0.1	73.1	26.6	0.2		
Total %	3.6	0.1	0.5	0	4.2	5.1	25.4	0.1	0.1	30.7	18.6	3.2	10.1	0	32	0	24.2	8.8	0.1	33.1	
Unshifted	216	3	32	0	251	306	1513	4	4	1827	1109	193	600	0	1902	1	1443	525	4	1973	5953
% Unshifted	100	100	100	0	100	100	100	100	100	100	100	100	100	0	100	100	100	100	100	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Pardee Rd Southbound					**SR 31 Westbound**					**I-81 NB Off Ramp Northbound**					**SR 31 Eastbound**					
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 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	**32**	0	**9**	0	**41**	40	174	0	0	214	159	29	71	0	259	0	202	66	0	**268**	782
05:00 PM	32	**1**	0	0	33	**43**	**222**	0	0	**265**	161	28	86	0	275	0	**204**	49	**2**	255	**828**
05:15 PM	17	0	7	0	24	40	212	**4**	**3**	259	**172**	23	**87**	0	**282**	0	192	67	0	259	824
05:30 PM	24	0	0	0	24	42	184	0	0	226	145	**30**	68	0	243	**1**	181	**71**	0	253	746
Total Volume	105	1	16	0	122	165	792	4	3	964	637	110	312	0	1059	1	779	253	2	1035	3180
% App. Total	86.1	0.8	13.1	0		17.1	82.2	0.4	0.3		60.2	10.4	29.5	0		0.1	75.3	24.4	0.2		
PHF	.820	.250	.444	.000	.744	.959	.892	.250	.250	.909	.926	.917	.897	.000	.939	.250	.955	.891	.250	.965	.960

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Groups Printed- Unshifted - Bank 1

	Torchwood Lane Southbound					SR 31 Westbound					Thompson Road Northbound					SR 31 Eastbound					
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
07:15 AM	8	57	2	0	67	3	79	21	0	103	7	11	45	0	63	40	52	7	0	99	332
07:30 AM	5	55	2	0	62	1	70	31	0	102	11	6	35	0	52	55	53	4	0	112	328
07:45 AM	9	58	9	0	76	0	62	42	0	104	22	7	22	0	51	42	66	1	0	109	340
Total	22	170	13	0	205	4	211	94	0	309	40	24	102	0	166	137	171	12	0	320	1000
08:00 AM	7	57	1	0	65	3	64	27	0	94	13	17	35	0	65	31	62	4	0	97	321
08:15 AM	10	40	3	0	53	5	59	23	0	87	11	10	36	0	57	25	59	4	0	88	285
08:30 AM	11	26	5	0	42	2	56	15	0	73	8	12	34	0	54	27	46	3	0	76	245
08:45 AM	15	34	3	0	52	2	72	10	0	84	10	5	31	0	46	22	53	3	0	78	260
Total	43	157	12	0	212	12	251	75	0	338	42	44	136	0	222	105	220	14	0	339	1111
09:00 AM	12	16	1	0	29	1	70	12	0	83	12	11	43	0	66	28	52	5	0	85	263
Grand Total	77	343	26	0	446	17	532	181	0	730	94	79	281	0	454	270	443	31	0	744	2374
Apprch %	17.3	76.9	5.8	0		2.3	72.9	24.8	0		20.7	17.4	61.9	0		36.3	59.5	4.2	0		
Total %	3.2	14.4	1.1	0	18.8	0.7	22.4	7.6	0	30.7	4	3.3	11.8	0	19.1	11.4	18.7	1.3	0	31.3	
Unshifted	77	343	26	0	446	17	532	181	0	730	94	79	281	0	454	270	443	31	0	744	2374
% Unshifted	100	100	100	0	100	100	100	100	0	100	100	100	100	0	100	100	100	100	0	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Torchwood Lane Southbound					SR 31 Westbound					Thompson Road Northbound					SR 31 Eastbound					
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 09:00 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	8	57	2	0	67	**3**	**79**	21	0	103	7	11	**45**	0	63	40	52	**7**	0	99	332
07:30 AM	5	55	2	0	62	1	70	31	0	102	11	6	35	0	52	**55**	53	4	0	**112**	328
07:45 AM	**9**	**58**	**9**	0	**76**	0	62	**42**	0	**104**	**22**	7	22	0	51	42	**66**	1	0	109	**340**
08:00 AM	7	57	1	0	65	3	64	27	0	94	13	**17**	35	0	**65**	31	62	4	0	97	321
Total Volume	29	227	14	0	270	7	275	121	0	403	53	41	137	0	231	168	233	16	0	417	1321
% App. Total	10.7	84.1	5.2	0		1.7	68.2	30	0		22.9	17.7	59.3	0		40.3	55.9	3.8	0		
PHF	.806	.978	.389	.000	.888	.583	.870	.720	.000	.969	.602	.603	.761	.000	.888	.764	.883	.571	.000	.931	.971

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Groups Printed- Unshifted - Bank 1

	Torchwood Lane Southbound					SR 31 Westbound					Thompson Road Northbound					SR 31 Eastbound					
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
04:15 PM	9	29	11	0	49	11	81	16	0	108	35	34	40	0	109	56	128	11	0	195	461
04:30 PM	11	27	4	0	42	5	97	20	0	122	44	43	42	0	129	45	108	8	0	161	454
04:45 PM	13	33	10	0	56	9	107	18	0	134	44	42	40	0	126	38	138	11	0	187	503
Total	33	89	25	0	147	25	285	54	0	364	123	119	122	0	364	139	374	30	0	543	1418
05:00 PM	15	37	2	0	54	6	88	22	0	116	45	53	42	1	141	49	137	23	0	209	520
05:15 PM	8	30	9	0	47	14	92	14	0	120	44	53	46	0	143	63	134	19	0	216	526
05:30 PM	11	20	7	0	38	9	72	23	0	104	51	67	35	0	153	60	119	23	0	202	497
05:45 PM	13	30	7	0	50	7	88	11	0	106	32	48	34	0	114	75	129	20	0	224	494
Total	47	117	25	0	189	36	340	70	0	446	172	221	157	1	551	247	519	85	0	851	2037
06:00 PM	12	29	4	0	45	9	65	17	0	91	25	28	42	0	95	46	135	28	0	209	440
Grand Total	92	235	54	0	381	70	690	141	0	901	320	368	321	1	1010	432	1028	143	0	1603	3895
Apprch %	24.1	61.7	14.2	0		7.8	76.6	15.6	0		31.7	36.4	31.8	0.1		26.9	64.1	8.9	0		
Total %	2.4	6	1.4	0	9.8	1.8	17.7	3.6	0	23.1	8.2	9.4	8.2	0	25.9	11.1	26.4	3.7	0	41.2	
Unshifted	92	235	54	0	381	70	690	141	0	901	320	368	321	1	1010	432	1028	143	0	1603	3895
% Unshifted	100	100	100	0	100	100	100	100	0	100	100	100	100	100	100	100	100	100	0	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Torchwood Lane Southbound					SR 31 Westbound					Thompson Road Northbound					SR 31 Eastbound					
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 04:15 PM to 06:00 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	13	33	**10**	0	**56**	9	**107**	18	0	**134**	44	42	40	0	126	38	**138**	11	0	187	503
05:00 PM	**15**	**37**	2	0	54	6	88	22	0	116	45	53	42	**1**	141	49	137	**23**	0	209	520
05:15 PM	8	30	9	0	47	**14**	92	14	0	120	44	53	**46**	0	143	**63**	134	19	0	**216**	**526**
05:30 PM	11	20	7	0	38	9	72	**23**	0	104	**51**	**67**	35	0	**153**	60	119	23	0	202	497
Total Volume	47	120	28	0	195	38	359	77	0	474	184	215	163	1	563	210	528	76	0	814	2046
% App. Total	24.1	61.5	14.4	0		8	75.7	16.2	0		32.7	38.2	29	0.2		25.8	64.9	9.3	0		
PHF	.783	.811	.700	.000	.871	.679	.839	.837	.000	.884	.902	.802	.886	.250	.920	.833	.957	.826	.000	.942	.972

APPENDIX F
LOS AND QUEUE SUMMARY SHEETS

Clay Business Park
Level of Service Analysis
Summary

Intersection	Movement	Existing AM	Existing PM	2014 No Build AM	2014 No Build PM	2014 Build AM	2014 Build PM
NYS Route 31 at Route 57							
Eastbound	L	D(43.4)	F(104)	D(43.4)	F(108)	D(43.4)	F(109)
	TR	C(21.3)	C(34.5)	C(22.7)	D(49.4)	C(22.7)	D(49.9)
Westbound	L	D(40.8)	E(62.3)	D(40.9)	F(93.4)	D(40.9)	F(93.4)
	TR	B(13.9)	C(29.4)	B(14.3)	D(42.5)	B(14.3)	D(43.4)
Northbound	L	D(40.1)	D(41.8)	D(40.2)	D(42.1)	D(40.2)	D(42.1)
	T	D(35.3)	D(36.5)	D(35.3)	D(36.5)	D(35.3)	D(36.5)
	R	B(14.0)	C(28.0)	B(16.2)	D(38.2)	B(16.2)	D(38.2)
Southbound	L	D(53.5)	F(97.0)	E(56.0)	F(141)	E(56.0)	F(141)
	TR	C(29.3)	C(32.6)	C(29.4)	C(32.6)	C(29.4)	C(32.6)
Overall		**C(24.2)**	**D(40.6)**	**C(25.0)**	**D(54.9)**	**C(25.0)**	**D(55.3)**
ICU		**B(0.59)**	**C(0.73)**	**B(0.61)**	**D(0.82)**	**B(0.61)**	**D(0.82)**
NYS Route 31 at Target Driveway							
Eastbound	L	D(35.7)	D(44.4)	D(35.7)	D(44.6)	D(35.7)	D(44.6)
	T	A(8.1)	B(17.6)	A(8.2)	B(19.0)	A(8.2)	B(19.0)
	R	A(2.6)	A(3.3)	A(2.6)	A(3.3)	A(2.6)	A(3.3)
Westbound	L	E(56.6)	D(55.8)	D(54.0)	E(56.1)	D(54.0)	E(56.9)
	T	A(2.3)	C(26.5)	A(2.6)	D(45.1)	A(2.6)	D(46.9)
	R	A(0.2)	A(0.6)	A(0.3)	A(0.8)	A(0.3)	A(0.9)
Northbound	L	D(39.8)	E(59.1)	D(39.8)	E(59.6)	D(39.8)	E(59.6)
	TR	C(23.6)	D(41.7)	C(23.6)	D(42.0)	C(23.6)	D(42.0)
Southbound	L	D(36.9)	D(45.9)	D(37.0)	D(46.0)	D(37.0)	D(46.0)
	TR	C(22.2)	D(49.5)	C(22.2)	E(58.2)	C(22.2)	E(58.2)
Overall		**B(12.2)**	**C(29.5)**	**B(11.9)**	**D(36.1)**	**B(11.9)**	**D(36.7)**
ICU		**A(0.42)**	**E(0.86)**	**A(0.43)**	**F(0.93)**	**A(0.43)**	**F(0.94)**
NYS Route 31 at Dell Center Drive							
Eastbound	L	D(39.0)	D(50.0)	D(38.8)	D(49.6)	D(38.7)	D(49.6)
	TR	A(5.9)	A(7.2)	A(5.9)	A(7.0)	A(5.9)	A(7.0)
Westbound	L	D(46.7)	D(47.8)	D(47.0)	D(45.5)	D(46.9)	D(45.5)
	T	A(7.6)	A(7.8)	A(7.9)	B(10.5)	A(8.0)	B(10.7)
	R	A(4.6)	A(1.0)	A(4.6)	A(0.9)	A(4.6)	A(0.9)
Northbound	L	D(39.1)	D(48.8)	D(39.1)	D(48.8)	D(39.1)	D(48.8)
	TR	A(0.1)	C(28.9)	A(0.1)	C(28.9)	A(0.1)	C(28.9)
Southbound	L	D(38.9)	D(54.4)	D(39.0)	D(54.6)	D(39.0)	D(54.6)
	TR	C(21.5)	B(14.1)	C(21.4)	B(14.0)	C(21.4)	D(36.8)
Overall		**B(10.8)**	**B(12.0)**	**B(10.7)**	**B(12.5)**	**B(10.7)**	**B(12.6)**
ICU		**A(0.40)**	**B(0.64)**	**A(0.42)**	**C(0.70)**	**A(0.42)**	**C(0.70)**
NYS Route 31 at Carling Road							
Eastbound	L	D(53.3)	E(66.2)	D(53.9)	E(66.2)	D(53.9)	E(66.2)
	TR	A(3.3)	C(29.8)	A(3.5)	C(34.7)	A(3.5)	C(34.7)
Westbound	L	C(33.4)	E(59.0)	C(33.4)	E(55.6)	C(33.3)	E(55.4)
	T	A(9.1)	C(20.9)	B(10.0)	D(39.8)	B(10.0)	D(41.8)
	R	A(1.7)	A(0.3)	A(1.4)	A(0.2)	A(1.4)	A(0.2)
Northbound	L	D(38.4)	D(54.3)	D(38.4)	D(54.3)	D(38.4)	D(54.3)
	TR	A(0.3)	C(21.2)	A(0.3)	C(20.6)	A(0.3)	C(20.6)
Southbound	L	D(38.1)	D(50.9)	D(38.1)	D(51.1)	D(38.1)	D(51.1)
	TR	B(14.9)	C(23.2)	B(14.8)	C(26.2)	B(14.8)	C(26.2)
Overall		**A(8.3)**	**C(29.3)**	**A(8.7)**	**D(37.1)**	**A(8.7)**	**D(37.7)**
ICU		**A(0.39)**	**E(0.83)**	**A(0.41)**	**E(0.90)**	**A(0.41)**	**E(0.90)**
NYS Route 31 at Wegmans East							
Eastbound	L	D(49.1)	D(50.3)	D(49.0)	D(49.2)	D(49.0)	D(49.2)
	TR	A(1.6)	B(14.4)	A(1.0)	B(19.0)	A(1.1)	B(19.1)
Westbound	L	D(40.2)	E(55.9)	D(40.5)	E(54.4)	D(40.5)	E(54.1)
	T	A(2.8)	C(22.3)	A(2.7)	C(31.9)	A(2.7)	C(32.6)
	R	A(0.7)	A(1.2)	A(0.6)	A(1.0)	A(0.6)	A(1.0)
Northbound	L	A(0.0)	D(49.6)	A(0.0)	D(49.6)	A(0.0)	D(49.6)
	TR	A(0.2)	C(23.1)	A(0.2)	C(23.1)	A(0.2)	C(23.1)
Southbound	L	D(37.6)	D(46.9)	D(37.5)	D(46.8)	D(37.5)	D(46.8)
	TR	B(14.6)	B(13.4)	B(14.6)	B(13.2)	B(14.6)	B(13.2)
Overall		**A(5.1)**	**C(21.7)**	**A(4.7)**	**C(26.6)**	**A(4.6)**	**C(26.9)**
ICU		**A(0.35)**	**D(0.74)**	**A(0.38)**	**D(0.80)**	**A(0.37)**	**D(0.81)**

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Intersection	Movement	Existing AM	Existing PM	2014 No Build AM	2014 No Build PM	2014 Build AM	2014 Build PM
NYS Route 31 at Soule Road							
Eastbound	T	B(10.7)	D(48.3)	B(11.8)	F(124)	B(11.8)	F(125)
	R	A(8.1)	B(12.7)	A(8.8)	B(13.3)	A(8.8)	B(13.3)
Westbound	L	C(33.7)	D(41.0)	C(33.8)	D(49.8)	C(33.7)	D(43.3)
	T	A(3.3)	C(21.0)	A(3.8)	C(27.5)	A(3.8)	C(26.0)
Northbound	L	D(49.3)	F(116)	D(50.0)	F(121)	D(50.0)	F(121)
	R	A(8.6)	C(29.8)	B(10.8)	D(45.4)	B(11.2)	D(45.3)
Southbound	L	C(30.4)	C(29.7)	C(32.7)	C(31.3)	C(32.9)	C(31.4)
	T	D(38.7)	D(53.7)	D(38.7)	D(53.9)	D(38.7)	D(53.9)
	R	B(14.6)	E(74.2)	B(14.6)	F(90.2)	B(14.6)	F(90.4)
Overall		**B(15.7)**	**D(37.5)**	**B(16.5)**	**E(59.8)**	**B(16.5)**	**E(58.8)**
ICU		**B(0.59)**	**D(0.75)**	**B(0.60)**	**E(0.83)**	**B(0.60)**	**E(0.83)**
NYS Route 31 at SR 481 NB Ramps							
Eastbound	L	A(2.7)	D(53.7)	A(3.2)	D(44.7)	A(3.2)	D(44.7)
	T	A(2.0)	B(12.8)	A(2.2)	C(26.3)	A(2.2)	C(26.4)
Westbound	T	A(2.5)	D(48.5)	A(3.3)	F(100)	A(3.3)	F(103)
	R	A(0.3)	B(15.1)	A(0.6)	B(11.5)	A(0.6)	B(11.4)
Northbound	L	D(41.8)	D(52.3)	D(41.9)	D(52.1)	D(41.9)	D(52.1)
	LT	D(42.0)	D(52.3)	D(42.1)	D(52.1)	D(42.1)	D(52.1)
	R	A(9.2)	C(26.7)	A(8.9)	D(35.5)	A(8.9)	D(35.5)
Overall		**A(9.0)**	**C(34.7)**	**A(8.6)**	**D(52.3)**	**A(8.6)**	**D(53.0)**
ICU		**A(0.41)**	**D(0.78)**	**A(0.44)**	**E(0.87)**	**A(0.44)**	**E(0.87)**
NYS Route 31 at Market Fair Mall							
Eastbound	T	A(2.6)	B(10.8)	A(2.7)	C(21.4)	A(2.7)	C(22.1)
	R	A(0.1)	A(0.4)	A(0.1)	A(0.5)	A(0.1)	A(0.3)
Westbound	L	A(0.3)	B(11.3)	A(0.2)	B(13.4)	A(0.2)	B(13.4)
	T	A(0.3)	A(4.2)	A(0.2)	A(9.8)	A(0.2)	A(9.6)
Northbound	L	D(36.2)	D(54.5)	D(36.2)	D(54.5)	D(36.2)	D(54.5)
	R	B(10.4)	C(20.4)	B(10.4)	C(24.5)	B(10.4)	C(24.5)
Overall		**A(1.7)**	**A(9.2)**	**A(1.7)**	**B(16.2)**	**A(1.7)**	**B(16.3)**
ICU		**A(0.29)**	**C(0.65)**	**A(0.32)**	**D(0.76)**	**A(0.33)**	**D(0.76)**
NYS Route 31 at Great Northern West							
Eastbound	L	B(16.0)	C(23.7)	B(15.4)	C(26.7)	B(15.4)	C(26.6)
	TR	A(1.2)	A(1.0)	A(1.8)	A(1.1)	A(1.8)	A(1.1)
Westbound	L	B(14.5)	A(0.0)	B(15.0)	A(0.0)	B(15.0)	A(0.0)
	T	C(21.1)	D(44.5)	C(23.4)	F(168)	C(23.5)	F(172)
	R	A(5.0)	A(2.7)	A(5.0)	A(2.2)	A(5.0)	A(2.2)
Northbound	LTR	A(0.0)	D(44.0)	A(0.0)	D(44.0)	A(0.0)	D(44.0)
Southbound	LT	C(35.0)	D(48.4)	C(35.0)	D(48.5)	C(35.0)	D(48.5)
	R	A(8.9)	B(11.4)	A(9.0)	B(11.4)	A(9.0)	B(11.4)
Overall		**B(11.5)**	**C(21.2)**	**B(12.9)**	**E(64.3)**	**B(12.9)**	**E(66.1)**
ICU		**A(0.35)**	**B(0.59)**	**A(0.38)**	**C(0.69)**	**A(0.39)**	**C(0.70)**
NYS Route 31 at Great Northern East							
Eastbound	L	A(3.5)	A(5.2)	A(3.9)	A(6.1)	A(4.0)	A(6.2)
	TR	A(3.5)	A(5.7)	A(4.2)	A(6.5)	A(4.2)	A(6.6)
Westbound	L	A(8.7)	A(8.7)	A(9.1)	B(10.1)	A(9.2)	B(10.1)
	TR	A(7.0)	A(9.6)	A(7.4)	B(12.2)	A(7.4)	B(12.3)
Northbound	LT	D(40.8)	D(42.6)	D(40.9)	D(43.1)	D(40.9)	D(43.1)
	R	B(14.5)	C(20.8)	B(14.2)	C(20.8)	B(14.2)	C(20.8)
Southbound	LT	C(26.8)	D(53.2)	C(26.8)	D(53.3)	C(26.8)	D(53.3)
	R	B(14.8)	B(11.8)	B(14.7)	B(11.7)	B(14.7)	B(11.7)
Overall		**A(8.5)**	**B(10.3)**	**A(8.6)**	**B(11.2)**	**A(8.6)**	**B(11.3)**
ICU		**A(0.49)**	**B(0.59)**	**A(0.52)**	**C(0.70)**	**A(0.53)**	**C(0.70)**
NYS Route 31 at Morgan Road							
Eastbound	L	B(16.1)	E(67.0)	B(16.0)	E(76.7)	B(16.0)	E(76.4)
	T	C(28.7)	C(27.0)	C(31.0)	D(40.1)	C(31.1)	D(41.0)
	R	A(3.3)	A(2.6)	A(3.2)	A(2.9)	A(3.2)	A(2.9)
Westbound	L	B(18.2)	B(18.3)	C(20.5)	C(34.1)	C(20.8)	D(35.5)
	TR	C(24.8)	D(38.5)	C(25.6)	F(152)	C(25.5)	F(157)
Northbound	L	C(20.7)	F(89.9)	C(24.0)	F(112)	C(24.1)	F(112)
	T	C(25.3)	C(33.4)	C(29.0)	D(40.0)	C(29.2)	D(40.0)
	R	A(4.2)	A(4.6)	A(4.1)	A(3.7)	A(4.1)	A(3.7)
Southbound	L	B(14.4)	B(19.3)	B(17.2)	C(22.7)	B(17.3)	C(22.7)
	TR	D(50.7)	D(47.9)	E(65.3)	D(50.5)	E(66.1)	D(50.5)
Overall		**C(26.8)**	**D(40.6)**	**C(30.2)**	**E(75.9)**	**C(30.3)**	**E(77.7)**
ICU		**B(0.62)**	**E(0.86)**	**B(0.64)**	**F(0.99)**	**B(0.64)**	**F(1.00)**

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Intersection	Movement	Existing AM	Existing PM	2014 No Build AM	2014 No Build PM	2014 Build AM	2014 Build PM
NYS Route 31 at Henry Clay Blvd.							
Eastbound	LTR	A(9.4)	B(14.4)	B(17.7)	F(181)	B(18.3)	F(186)
Westbound	LTR	B(12.0)	B(17.1)	D(39.8)	F(333)	D(42.3)	F(357)
Northbound	LTR	C(22.8)	F(94.0)	C(28.6)	F(420)	C(28.7)	F(421)
Southbound	LTR	B(19.4)	B(15.7)	B(19.7)	C(33.5)	B(19.8)	C(33.5)
Overall		**B(13.6)**	**D(40.3)**	**C(26.9)**	**F(269)**	**C(28.0)**	**F(280)**
ICU		**E(0.86)**	**G(1.01)**	**G(1.06)**	**H(1.50)**	**G(1.07)**	**H(1.53)**
NYS Route 31 at US Route 11							
Eastbound	L	B(10.1)	C(24.0)	B(11.0)	D(42.3)	B(11.1)	D(44.4)
	TR	C(23.4)	D(48.8)	C(28.9)	E(76.0)	C(29.1)	E(88.0)
Westbound	L	C(20.7)	D(47.1)	C(30.7)	E(58.8)	C(31.3)	E(58.8)
	TR	A(5.2)	C(27.6)	A(6.2)	D(35.7)	A(6.9)	D(36.1)
Northbound	L	C(34.0)	C(26.3)	D(35.0)	D(35.1)	D(35.5)	D(35.3)
	T	E(57.5)	D(52.7)	E(57.9)	E(61.4)	E(57.9)	E(61.4)
	R	C(28.9)	C(23.1)	C(25.5)	C(26.6)	C(25.4)	C(26.6)
Southbound	L	D(38.2)	C(31.9)	D(38.4)	D(41.9)	D(38.6)	D(41.9)
	TR	D(37.1)	C(30.9)	D(36.1)	C(34.1)	D(35.6)	C(34.0)
Overall		**C(23.6)**	**D(36.0)**	**C(26.3)**	**D(48.2)**	**C(26.5)**	**D(51.4)**
ICU		**B(0.60)**	**D(0.77)**	**C(0.64)**	**E(0.88)**	**C(0.64)**	**E(0.89)**
NYS Route 31 at I-81 SB Ramps							
Eastbound	TR	E(65.0)	D(41.5)	F(117)	F(128)	F(120)	F(142)
Westbound	L	C(23.7)	B(12.8)	C(26.3)	B(11.3)	C(26.7)	B(11.3)
	T	A(4.1)	A(6.9)	A(4.9)	A(9.2)	A(4.9)	A(9.3)
Southbound	LT	E(60.0)	E(63.9)	E(60.4)	E(64.5)	E(60.4)	E(64.5)
	R	B(13.7)	B(10.7)	B(13.8)	C(23.6)	B(13.8)	C(24.5)
Overall		**D(35.9)**	**C(26.5)**	**E(58.6)**	**E(66.1)**	**E(59.5)**	**E(72.7)**
ICU		**D(0.80)**	**C(0.71)**	**E(0.85)**	**D(0.80)**	**E(0.85)**	**D(0.81)**
NYS Route 31 at I-81 NB Ramps							
Eastbound	L	A(4.6)	C(29.8)	A(5.7)	D(41.3)	A(5.9)	D(43.1)
	T	A(5.2)	B(10.6)	A(7.2)	D(39.2)	A(7.5)	D(42.9)
Westbound	TR	C(20.0)	E(68.1)	C(22.9)	F(175)	C(23.2)	F(178)
Northbound	L	D(44.7)	D(35.7)	D(42.0)	D(45.3)	D(44.7)	D(46.6)
	T	C(34.4)	C(25.4)	C(32.7)	C(25.5)	C(32.4)	C(25.5)
	R	C(28.6)	F(88.7)	D(35.3)	F(118)	C(34.6)	F(119)
Southbound	R	E(62.0)	D(41.4)	E(62.0)	D(40.1)	E(62.0)	D(39.9)
Overall		**C(21.4)**	**D(48.5)**	**C(23.7)**	**F(95.0)**	**C(24.2)**	**F(97.1)**
ICU		**B(0.56)**	**D(0.78)**	**C(0.58)**	**D(0.90)**	**B(0.58)**	**D(0.91)**
NYS Route 31 at Lakeshore Rd Spur							
Eastbound	TR	A(5.4)	A(4.2)	A(5.7)	A(4.8)	A(5.7)	A(4.8)
Westbound	L	A(4.4)	B(17.4)	A(4.3)	B(16.9)	A(4.3)	B(16.9)
	TR	A(7.1)	C(28.6)	A(7.2)	D(38.3)	A(7.2)	D(38.4)
Northbound	LTR	C(22.7)	E(59.1)	C(22.5)	E(59.9)	C(22.5)	E(59.9)
Southbound	LT	D(43.3)	C(34.3)	D(43.5)	C(34.3)	D(43.5)	C(34.3)
Overall		**B(10.5)**	**C(20.4)**	**B(10.5)**	**C(24.0)**	**B(10.4)**	**C(24.0)**
ICU		**A(0.43)**	**B(0.56)**	**A(0.46)**	**C(0.65)**	**A(0.46)**	**C(0.65)**
NYS Route 31 at New Country Plaza							
Eastbound	L	A(3.4)	A(1.6)	A(3.6)	A(1.6)	A(3.6)	A(1.6)
	TR	A(4.5)	A(7.5)	A(4.8)	A(7.7)	A(4.8)	A(7.9)
Westbound	L	A(4.0)	A(2.7)	A(4.0)	A(3.0)	A(4.0)	A(3.0)
	TR	B(13.7)	A(7.4)	B(14.3)	A(9.1)	B(14.3)	A(9.1)
Northbound	L	D(37.4)	D(41.3)	D(37.4)	D(41.3)	D(37.4)	D(41.3)
	TR	B(10.4)	B(11.3)	B(10.3)	B(11.1)	B(10.3)	B(11.1)
Southbound	LTR	D(35.3)	B(19.0)	D(35.8)	B(18.9)	D(35.8)	B(18.9)
Overall		**B(10.6)**	**A(8.8)**	**B(10.8)**	**A(9.4)**	**B(10.8)**	**A(9.4)**
ICU		**B(0.56)**	**A(0.55)**	**B(0.58)**	**B(0.56)**	**B(0.58)**	**B(0.56)**
NYS Route 31 at CNS High School							
Eastbound	T	C(21.9)	B(12.3)	C(26.4)	C(20.4)	C(26.5)	C(20.7)
	R	A(2.8)	A(0.9)	A(3.1)	A(0.7)	A(3.1)	A(0.7)
Westbound	L	B(11.6)	A(5.7)	B(14.3)	B(12.0)	B(14.4)	B(12.9)
	T	A(9.1)	A(5.9)	B(10.2)	A(7.4)	B(10.3)	A(7.4)
Northbound	L	C(31.6)	D(36.5)	C(31.8)	D(36.6)	C(31.8)	D(36.6)
	R	A(3.8)	A(4.8)	A(3.2)	A(7.5)	A(3.2)	A(7.7)
Overall		**B(12.2)**	**B(10.3)**	**B(14.2)**	**B(14.5)**	**B(14.2)**	**B(14.7)**
ICU		**A(0.48)**	**B(0.62)**	**A(0.51)**	**B(0.71)**	**A(0.51)**	**C(0.72)**

Clay Business Park
Level of Service Analysis
Summary

Intersection	Movement	Existing AM	Existing PM	2014 No Build AM	2014 No Build PM	2014 Build AM	2014 Build PM
NYS Route 31 at Thompson Road							
Eastbound	L	A(3.3)	B(14.8)	A(3.1)	B(16.5)	A(3.1)	B(16.5)
	TR	A(7.5)	C(24.5)	A(8.4)	D(35.0)	A(8.5)	D(35.7)
Westbound	L	B(11.5)	C(34.4)	B(14.1)	F(209)	B(14.1)	F(232)
	TR	A(9.7)	B(17.9)	B(10.7)	C(20.3)	B(10.7)	C(20.3)
Northbound	LT	D(48.3)	D(38.5)	D(48.7)	F(93.4)	D(48.7)	F(93.4)
	R	B(10.9)	B(16.2)	B(11.5)	B(19.5)	B(11.5)	B(19.5)
Southbound	LTR	C(26.1)	C(24.5)	C(25.0)	D(37.5)	C(25.0)	D(37.5)
Overall		**B(15.4)**	**C(25.2)**	**B(15.9)**	**D(49.2)**	**B(15.9)**	**D(50.4)**
ICU		**C(0.67)**	**E(0.89)**	**C(0.71)**	**G(1.02)**	**C(0.72)**	**G(1.02)**
NYS Route 31 at Caughdenoy Road							
Eastbound	LT	A(0.5)	A(0.8)	A(0.5)	A(1.1)		
Westbound	LT	A(0.4)	A(0.4)	A(0.4)	A(6.9)		
Northbound	LTR	C(18.2)	E(38.6)	F(107)	F(999)	**N/A**	**N/A**
Southbound	LTR	C(21.8)	D(30.9)	E(48.9)	F(999)		
Overall		**A(4.1)**	A(6.7)	**F(25.4)**	F(999)		
ICU		**A(0.37)**	A(0.50)	**A(0.52)**	H(1.53)		
NYS Route 31 at Caughdenoy Road							
Eastbound	L					A(6.8)	B(15.2)
	T					B(15.7)	D(35.8)
	R					A(3.7)	A(3.6)
Westbound	L					A(6.6)	B(18.8)
	T					B(11.7)	C(29.3)
	R	**N/A**	**N/A**	**N/A**	**N/A**	A(2.4)	A(4.2)
Northbound	L					C(32.0)	D(43.4)
	T					C(28.1)	C(26.0)
	R					A(6.1)	B(11.6)
Southbound	L					C(21.0)	C(25,4)
	TR					C(20.3)	C(34.5)
Overall						**B(14.1)**	**C(23.5)**
ICU						**A(0.49)**	**C(0.71)**
Caughdenoy Road at Southern Drive							
Westbound	L	**N/A**	**N/A**	**N/A**	**N/A**	A(9.5)	B(10.2)
Southbound	R					A(0.0)	A(9.1)
	L					A(7.4)	A(0.0)
Caughdenoy Road at Northern Drive							
Westbound	L	**N/A**	**N/A**	**N/A**	**N/A**	A(9.3)	B(10.0)
Southbound	R					A(8.5)	A(9.1)
	L					A(7.4)	A(7.6)

Clay Business Park
Level of Service Analysis
Summary

Intersection	Movement	2016 No Build AM	2016 No Build PM	2016 Build AM	2016 Build PM
NYS Route 31 at Route 57					
Eastbound	L	D(43.8)	F(114)	D(43.8)	F(114)
	TR	C(23.1)	D(53.9)	C(23.2)	D(54.5)
Westbound	L	D(40.9)	F(98.8)	D(40.9)	F(98.8)
	TR	B(14.4)	D(46.4)	B(14.4)	D(48.3)
Northbound	L	D(40.3)	D(42.2)	D(40.3)	D(42.2)
	T	D(35.2)	D(36.5)	D(35.2)	D(36.5)
	R	B(17.0)	D(39.4)	B(17.1)	D(39.4)
Southbound	L	E(57.2)	F(146)	E(57.2)	F(146)
	TR	C(29.4)	C(32.8)	C(29.4)	C(32.8)
Overall		**C(25.4)**	**E(58.4)**	**C(25.4)**	**E(59.1)**
ICU		**B(0.61)**	**E(0.83)**	**B(0.61)**	**E(0.83)**
NYS Route 31 at Target Driveway					
Eastbound	L	D(35.7)	D(44.9)	D(35.7)	D(44.9)
	T	A(8.3)	B(19.2)	A(8.3)	B(19.2)
	R	A(2.6)	A(3.3)	A(2.6)	A(3.3)
Westbound	L	D(54.5)	E(56.2)	D(54.5)	E(56.1)
	T	A(2.7)	D(50.1)	A(2.7)	D(52.5)
	R	A(0.3)	A(0.9)	A(0.3)	A(0.9)
Northbound	L	D(39.8)	E(60.6)	D(39.8)	E(60.6)
	TR	C(23.6)	D(44.1)	C(23.6)	D(44.1)
Southbound	L	D(36.9)	D(46.2)	D(36.9)	D(46.2)
	TR	C(21.9)	E(64.6)	C(21.9)	E(64.6)
Overall		**B(11.9)**	**D(38.6)**	**B(11.9)**	**D(39.4)**
ICU		**A(0.43)**	**F(0.95)**	**A(0.43)**	**F(0.95)**
NYS Route 31 at Dell Center Drive					
Eastbound	L	D(38.6)	D(49.5)	D(38.6)	D(49.4)
	TR	A(6.0)	A(7.1)	A(6.0)	A(7.1)
Westbound	L	D(47.1)	D(45.8)	D(47.1)	D(45.7)
	T	A(8.1)	B(11.0)	A(8.1)	B(11.2)
	R	A(4.6)	A(0.9)	A(4.6)	A(0.9)
Northbound	L	D(39.1)	D(48.8)	D(39.1)	D(48.8)
	TR	A(0.1)	C(28.9)	A(0.1)	C(28.9)
Southbound	L	D(39.0)	D(55.0)	D(39.0)	D(55.0)
	TR	C(21.1)	B(14.0)	C(21.1)	B(14.0)
Overall		**B(10.7)**	**B(12.8)**	**B(10.7)**	**B(12.9)**
ICU		**A(0.42)**	**C(0.71)**	**A(0.42)**	**C(0.71)**
NYS Route 31 at Carling Road					
Eastbound	L	D(54.0)	E(67.7)	D(54.0)	E(67.7)
	TR	A(3.5)	D(35.0)	A(3.6)	D(35.0)
Westbound	L	C(33.3)	E(55.0)	C(33.1)	E(54.8)
	T	B(10.3)	D(46.7)	B(10.3)	D(49.8)
	R	A(1.4)	A(0.1)	A(1.4)	A(0.1)
Northbound	L	D(38.4)	D(54.6)	D(38.4)	D(54.6)
	TR	A(0.3)	C(20.8)	A(0.3)	C(20.8)
Southbound	L	D(38.1)	D(51.4)	D(38.1)	D(51.4)
	TR	B(14.8)	C(26.2)	B(14.8)	C(26.2)
Overall		**A(8.7)**	**D(39.6)**	**A(8.7)**	**D(40.7)**
ICU		**A(0.41)**	**E(0.91)**	**A(0.41)**	**E(0.91)**
NYS Route 31 at Wegmans East					
Eastbound	L	D(49.4)	D(49.1)	D(49.3)	D(49.1)
	TR	A(1.1)	C(20.0)	A(1.1)	C(20.0)
Westbound	L	D(40.3)	E(54.0)	D(40.4)	E(53.7)
	T	A(2.8)	D(37.2)	A(2.8)	D(39.0)
	R	A(0.6)	A(1.0)	A(0.6)	A(1.0)
Northbound	L	A(0.0)	D(49.7)	A(0.0)	D(49.7)
	TR	A(0.2)	C(23.2)	A(0.2)	C(23.2)
Southbound	L	D(37.7)	D(46.7)	D(37.7)	D(46.7)
	TR	B(14.6)	B(13.1)	B(14.6)	B(13.1)
Overall		**A(4.7)**	**C(29.0)**	**A(4.7)**	**C(29.8)**
ICU		**A(0.38)**	**D(0.81)**	**A(0.38)**	**D(0.82)**

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Summary

Intersection	Movement	2016 No Build AM	2016 No Build PM	2016 Build AM	2016 Build PM
NYS Route 31 at Soule Road					
Eastbound	T	B(11.9)	F(133)	B(11.9)	F(134)
	R	A(9.3)	B(14.0)	A(9.3)	B(14.0)
Westbound	L	C(33.8)	D(40.4)	C(33.9)	D(40.5)
	T	A(3.8)	C(25.9)	A(3.8)	C(26.5)
Northbound	L	D(50.6)	F(128)	D(50.6)	F(128)
	R	B(11.7)	D(46.7)	B(12.5)	D(46.7)
Southbound	L	C(32.9)	C(31.5)	C(33.4)	C(31.5)
	T	D(38.7)	D(54.2)	D(38.7)	D(54.2)
	R	B(14.5)	F(97.1)	B(14.5)	F(98.8)
Overall		**B(16.7)**	**E(61.2)**	**B(16.8)**	**E(61.7)**
ICU		**B(0.61)**	**E(0.84)**	**B(0.61)**	**E(0.84)**
NYS Route 31 at SR 481 NB Ramps					
Eastbound	L	A(3.3)	D(44.1)	A(3.3)	D(43.9)
	T	A(2.3)	D(35.7)	A(2.3)	D(36.7)
Westbound	T	A(3.3)	F(113)	A(3.3)	F(117)
	R	A(0.6)	B(11.2)	A(0.6)	B(10.9)
Northbound	L	D(42.1)	D(52.9)	D(42.1)	D(52.9)
	LT	D(42.1)	D(53.2)	D(42.1)	D(53.2)
	R	A(8.8)	D(35.7)	A(8.8)	D(35.7)
Overall		**A(8.7)**	**D(59.0)**	**A(8.7)**	**E(60.6)**
ICU		**A(0.45)**	**E(0.88)**	**A(0.45)**	**E(0.89)**
NYS Route 31 at Market Fair Mall					
Eastbound	T	A(2.7)	C(25.8)	A(2.7)	C(26.1)
	R	A(0.1)	A(0.3)	A(0.1)	A(0.3)
Westbound	L	A(0.3)	B(13.7)	A(0.3)	B(13.7)
	T	A(0.3)	A(9.9)	A(0.3)	B(10.2)
Northbound	L	D(36.2)	D(54.6)	D(36.2)	D(54.6)
	R	B(10.3)	C(24.5)	B(10.3)	C(24.5)
Overall		**A(1.7)**	**B(18.1)**	**A(1.7)**	**B(18.4)**
ICU		**A(0.33)**	**D(0.77)**	**A(0.33)**	**D(0.77)**
NYS Route 31 at Great Northern West					
Eastbound	L	B(15.5)	C(26.9)	B(15.4)	C(26.9)
	TR	A(1.9)	A(1.1)	A(1.9)	A(1.1)
Westbound	L	B(15.5)	A(0.0)	B(15.5)	A(0.0)
	T	C(23.9)	F(176)	C(24.0)	F(184)
	R	A(5.0)	A(2.1)	A(5.0)	A(2.1)
Northbound	LTR	A(0.0)	D(44.0)	A(0.0)	D(44.0)
Southbound	LT	C(35.0)	D(48.6)	C(35.0)	D(48.6)
	R	A(9.0)	B(11.5)	A(9.0)	B(11.5)
Overall		**B(13.1)**	**E(67.2)**	**B(13.2)**	**E(70.1)**
ICU		**A(0.39)**	**C(0.70)**	**A(0.39)**	**C(0.71)**
NYS Route 31 at Great Northern East					
Eastbound	L	A(4.0)	A(6.3)	A(4.0)	A(6.8)
	TR	A(4.3)	A(6.7)	A(4.4)	A(6.7)
Westbound	L	A(9.2)	B(10.6)	A(9.3)	B(10.6)
	TR	A(7.5)	B(12.6)	A(7.5)	B(12.8)
Northbound	LT	D(40.9)	D(42.7)	D(40.9)	D(42.7)
	R	B(14.1)	C(20.1)	B(14.1)	C(20.1)
Southbound	LT	C(26.5)	D(53.4)	C(26.5)	D(53.4)
	R	B(14.4)	B(11.5)	B(14.4)	B(11.5)
Overall		**A(8.6)**	**B(11.4)**	**A(8.7)**	**B(11.5)**
ICU		**A(0.53)**	**C(0.70)**	**A(0.53)**	**C(0.70)**
NYS Route 31 at Morgan Road					
Eastbound	L	B(16.1)	F(82.1)	B(16.0)	F(82.1)
	T	C(31.2)	D(41.1)	C(31.5)	D(42.7)
	R	A(3.2)	A(2.9)	A(3.2)	A(2.9)
Westbound	L	C(20.8)	C(34.5)	C(21.1)	D(37.0)
	TR	C(25.7)	F(159)	C(25.6)	F(168)
Northbound	L	C(24.2)	F(120)	C(24.5)	F(120)
	T	C(29.2)	D(40.3)	C(29.5)	D(40.4)
	R	A(4.1)	A(3.7)	A(4.0)	A(3.7)
Southbound	L	B(17.3)	C(22.8)	B(17.6)	C(22.9)
	TR	E(70.9)	D(52.1)	E(72.2)	D(52.1)
Overall		**C(31.4)**	**E(79.3)**	**C(31.6)**	**F(82.4)**
ICU		**C(0.65)**	**G(1.01)**	**C(0.65)**	**G(1.01)**

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Summary

Intersection	Movement	2016 No Build		2016 Build	
		AM			
NYS Route 31 at Henry Clay Blvd.					
Eastbound	LTR	B(18.4)	F(188)	B(19.6)	F(194)
Westbound	LTR	D(44.9)	F(347)	D(54.4)	F(393)
Northbound	LTR	C(29.2)	F(434)	C(29.3)	F(435)
Southbound	LTR	B(19.7)	C(33.5)	B(19.9)	C(33.7)
Overall		**C(29.0)**	**F(280)**	**C(32.6)**	**F(297)**
ICU		**G(1.07)**	**H(1.52)**	**H(1.09)**	**H(1.56)**
NYS Route 31 at US Route 11					
Eastbound	L	B(11.2)	D(45.4)	B(11.3)	D(49.1)
	TR	C(29.8)	F(83.3)	C(30.3)	F(109)
Westbound	L	C(33.1)	E(59.4)	C(34.3)	E(59.4)
	TR	A(6.1)	D(36.4)	A(7.8)	D(37.1)
Northbound	L	D(35.1)	D(35.5)	D(35.9)	D(35.9)
	T	E(58.4)	E(62.6)	E(58.4)	E(62.6)
	R	C(25.1)	C(26.8)	C(25.0)	C(26.8)
Southbound	L	D(38.7)	D(44.6)	D(38.7)	D(44.6)
	TR	D(36.2)	C(34.7)	D(35.8)	C(34.7)
Overall		**C(27.0)**	**D(50.5)**	**C(27.3)**	**D(57.4)**
ICU		**C(0.65)**	**E(0.89)**	**C(0.65)**	**F(0.91)**
NYS Route 31 at I-81 SB Ramps					
Eastbound	TR	F(128)	F(143)	F(134)	F(168)
Westbound	L	C(28.2)	B(11.5)	C(28.6)	B(11.6)
	T	A(5.1)	A(9.4)	A(5.0)	A(9.6)
Southbound	LT	E(60.4)	E(65.0)	E(60.4)	E(65.0)
	R	B(13.7)	C(25.5)	B(13.8)	C(26.6)
Overall		**E(63.4)**	**E(72.9)**	**E(64.9)**	**F(85.2)**
ICU		**E(0.86)**	**D(0.81)**	**E(0.86)**	**E(0.83)**
NYS Route 31 at I-81 NB Ramps					
Eastbound	L	A(6.4)	D(46.5)	A(6.9)	D(49.1)
	T	A(7.9)	D(45.8)	A(8.3)	D(54.2)
Westbound	TR	C(24.0)	F(191)	C(24.7)	F(195)
Northbound	L	D(41.3)	D(46.8)	D(47.1)	D(50.4)
	T	C(32.1)	C(25.6)	C(31.8)	C(25.6)
	R	D(37.3)	F(129)	D(35.6)	F(131)
Southbound	R	E(62.5)	D(39.8)	E(62.5)	D(39.7)
Overall		**C(24.7)**	**F(104)**	**C(25.7)**	**F(108)**
ICU		**B(0.59)**	**F(0.92)**	**B(0.59)**	**F(0.92)**
NYS Route 31 at Lakeshore Rd Spur					
Eastbound	TR	A(5.8)	A(4.8)	A(5.8)	A(4.9)
Westbound	L	A(4.2)	B(16.6)	A(4.2)	B(17.2)
	TR	A(7.3)	D(39.7)	A(7.3)	D(40.3)
Northbound	LTR	C(22.6)	E(62.8)	C(22.6)	E(62.8)
Southbound	LT	D(43.7)	C(34.5)	D(43.7)	C(34.5)
Overall		**B(10.6)**	**C(24.9)**	**B(10.6)**	**C(25.1)**
ICU		**A(0.46)**	**C(0.66)**	**A(0.46)**	**C(0.66)**
NYS Route 31 at New Country Plaza					
Eastbound	L	A(3.6)	A(1.7)	A(3.7)	A(1.7)
	TR	A(4.9)	A(8.1)	A(4.9)	A(8.1)
Westbound	L	A(4.0)	A(3.4)	A(4.0)	A(3.1)
	TR	B(14.4)	A(9.7)	B(14.4)	A(9.4)
Northbound	L	D(37.4)	D(41.5)	D(37.4)	D(41.5)
	TR	B(10.3)	B(11.1)	B(10.3)	B(11.1)
Southbound	LTR	D(35.8)	B(18.3)	D(35.8)	B(18.3)
Overall		**B(10.9)**	**A(9.8)**	**B(10.9)**	**A(9.7)**
ICU		**B(0.59)**	**B(0.57)**	**B(0.59)**	**B(0.57)**
NYS Route 31 at CNS High School					
Eastbound	T	C(27.4)	C(21.6)	C(27.6)	C(22.6)
	R	A(3.3)	A(0.7)	A(3.4)	A(0.7)
Westbound	L	B(15.2)	B(13.1)	B(15.3)	B(13.1)
	T	B(10.6)	A(7.6)	B(10.7)	A(7.6)
Northbound	L	C(31.8)	D(36.7)	C(31.8)	D(36.7)
	R	A(3.2)	A(7.9)	A(3.2)	A(8.2)
Overall		**B(14.7)**	**B(15.2)**	**B(14.8)**	**B(15.6)**
ICU		**A(0.52)**	**C(0.72)**	**A(0.52)**	**C(0.73)**

Clay Business Park
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Summary

Intersection	Movement	2016 No Build AM	2016 No Build PM	2016 Build AM	2016 Build PM
NYS Route 31 at Thompson Road					
Eastbound	L	A(3.2)	B(16.7)	A(3.2)	B(16.8)
	TR	A(8.8)	D(36.5)	A(8.8)	D(38.0)
Westbound	L	B(15.1)	F(279)	B(15.2)	F(334)
	TR	B(11.0)	C(20.5)	B(11.1)	C(20.6)
Northbound	LT	D(49.1)	F(100)	D(49.1)	F(100)
	R	B(11.6)	B(19.8)	B(11.6)	B(19.8)
Southbound	LTR	C(25.0)	D(39.1)	C(25.0)	D(39.1)
Overall		**B(16.3)**	**D(54.5)**	**B(16.3)**	**E(57.4)**
ICU		**C(0.72)**	**G(1.03)**	**C(0.72)**	**G(1.04)**
NYS Route 31 at Caughdenoy Road					
Eastbound	LT	A(0.5)	A(1.1)	**N/A**	**N/A**
Westbound	LT	A(1.1)	A(7.0)		
Northbound	LTR	F(119)	F(999)		
Southbound	LTR	F(53.1)	F(999)		
Overall		**F(27.9)**	F(999)		
ICU		**A(0.52)**	H(1.54)		
NYS Route 31 at Caughdenoy Road					
Eastbound	L	**N/A**	**N/A**	A(6.9)	B(17.2)
	T			B(15.8)	D(39.8)
	R			A(1.9)	A(3.8)
Westbound	L			A(6.7)	C(21.0)
	T			B(13.3)	C(31.5)
	R			A(1.9)	A(3.5)
Northbound	L			C(34.5)	D(41.8)
	T			C(31.4)	C(30.6)
	R			A(7.2)	B(14.5)
Southbound	L			C(21.0)	C(28.1)
	TR			B(19.9)	C(32.8)
Overall				**B(14.5)**	**C(25.1)**
ICU				**A(0.50)**	**C(0.71)**
Caughdenoy Road at Southern Drive					
Westbound	L	**N/A**	**N/A**	A(9.7)	B(10.7)
Southbound	R			A(8.8)	A(9.1)
	L			A(7.5)	A(7.6)
Caughdenoy Road at Northern Drive					
Westbound	L	**N/A**	**N/A**	A(9.4)	B(10.2)
Southbound	R			A(8.6)	A(9.1)
	L			A(7.4)	A(7.6)

Clay Business Park
Level of Service Analysis
Summary

Intersection	Movement	2018 No Build AM	2018 No Build PM	2018 Build AM	2018 Build PM
NYS Route 31 at Route 57					
Eastbound	L	D(43.8)	F(120)	D(43.8)	F(120)
	TR	C(23.5)	E(59.1)	C(23.8)	E(60.0)
Westbound	L	D(40.9)	F(105)	D(40.9)	F(105)
	TR	B(14.5)	D(50.8)	B(14.5)	D(54.8)
Northbound	L	D(40.4)	D(42.6)	D(40.4)	D(42.6)
	T	D(35.2)	D(36.6)	D(35.2)	D(36.6)
	R	B(17.4)	D(40.9)	B(17.4)	D(41.1)
Southbound	L	E(57.7)	F(153)	E(57.7)	F(153)
	TR	C(29.5)	C(32.9)	C(29.5)	C(32.9)
Overall		**C(25.6)**	**E(62.4)**	**C(25.8)**	**E(63.8)**
ICU		**B(0.62)**	**E(0.84)**	**B(0.62)**	**E(0.84)**
NYS Route 31 at Target Driveway					
Eastbound	L	D(35.7)	D(45.1)	D(35.7)	D(45.1)
	T	A(8.3)	B(19.3)	A(8.4)	B(19.4)
	R	A(2.5)	A(3.2)	A(2.5)	A(3.2)
Westbound	L	D(54.4)	E(55.8)	D(54.4)	E(55.6)
	T	A(2.7)	E(56.5)	A(2.7)	E(61.4)
	R	A(0.3)	A(0.9)	A(0.3)	A(0.9)
Northbound	L	D(40.0)	E(60.6)	D(40.0)	E(60.6)
	TR	C(23.5)	D(44.2)	C(23.5)	D(44.2)
Southbound	L	D(37.0)	D(46.3)	D(37.0)	D(46.3)
	TR	C(22.2)	E(70.4)	C(22.2)	E(70.4)
Overall		**B(12.0)**	**D(41.3)**	**B(12.0)**	**D(43.0)**
ICU		**A(0.43)**	**F(0.96)**	**A(0.44)**	**F(0.97)**
NYS Route 31 at Dell Center Drive					
Eastbound	L	D(38.8)	D(49.4)	D(38.7)	D(49.5)
	TR	A(6.0)	A(7.1)	A(6.0)	A(7.1)
Westbound	L	D(47.6)	D(45.2)	D(47.4)	D(44.9)
	T	A(8.0)	B(11.3)	A(8.1)	B(11.6)
	R	A(4.5)	A(0.8)	A(4.5)	A(0.8)
Northbound	L	D(39.1)	D(48.8)	D(39.1)	D(48.8)
	TR	A(0.1)	C(28.5)	A(0.1)	C(28.5)
Southbound	L	D(39.1)	D(55.3)	D(39.1)	D(55.3)
	TR	C(21.0)	B(13.9)	C(21.0)	B(13.9)
Overall		**B(10.8)**	**B(12.9)**	**B(10.7)**	**B(13.0)**
ICU		**A(0.42)**	**C(0.72)**	**A(0.43)**	**C(0.73)**
NYS Route 31 at Carling Road					
Eastbound	L	D(54.3)	E(69.9)	D(54.2)	E(69.9)
	TR	A(3.5)	D(35.7)	A(3.6)	D(35.8)
Westbound	L	C(32.4)	D(54.5)	C(32.4)	D(52.3)
	T	B(10.4)	E(58.7)	B(10.5)	E(62.7)
	R	A(1.4)	A(0.1)	A(1.4)	A(0.1)
Northbound	L	D(38.4)	E(55.0)	D(38.4)	E(55.0)
	TR	A(0.3)	C(20.2)	A(0.3)	C(20.2)
Southbound	L	D(38.2)	D(51.6)	D(38.2)	D(51.6)
	TR	B(14.8)	C(29.2)	B(14.8)	C(29.2)
Overall		**A(8.8)**	**D(34.2)**	**A(8.8)**	**D(45.6)**
ICU		**A(0.41)**	**E(0.92)**	**A(0.42)**	**E(0.93)**
NYS Route 31 at Wegmans East					
Eastbound	L	D(49.2)	D(49.0)	D(49.3)	D(49.0)
	TR	A(1.1)	C(20.9)	A(1.1)	C(21.0)
Westbound	L	D(40.2)	D(53.3)	D(40.4)	D(53.0)
	T	A(3.5)	D(44.3)	A(3.5)	D(48.5)
	R	A(0.7)	A(1.0)	A(0.7)	A(1.0)
Northbound	L	A(0.0)	D(49.7)	A(0.0)	D(49.7)
	TR	A(0.2)	C(23.2)	A(0.2)	C(23.2)
Southbound	L	D(37.5)	D(46.6)	D(37.5)	D(46.6)
	TR	B(14.2)	B(12.9)	B(14.2)	B(12.9)
Overall		**A(5.0)**	**C(32.1)**	**A(5.0)**	**C(33.8)**
ICU		**A(0.38)**	**E(0.82)**	**A(0.38)**	**E(0.83)**

Clay Business Park
Level of Service Analysis
Summary

Intersection	Movement	2018 No Build AM	2018 No Build PM	2018 Build AM	2018 Build PM
NYS Route 31 at Soule Road					
Eastbound	T	B(12.1)	F(143)	B(12.1)	F(146)
	R	A(9.9)	B(14.8)	A(10.0)	B(14.9)
Westbound	L	C(34.0)	D(40.6)	C(34.0)	D(41.0)
	T	A(3.9)	C(27.9)	A(3.9)	C(29.6)
Northbound	L	D(51.4)	F(134)	D(51.4)	F(134)
	R	B(12.5)	D(48.2)	B(14.1)	D(48.1)
Southbound	L	C(33.1)	C(31.6)	C(33.9)	C(31.7)
	T	D(38.8)	D(54.9)	D(38.8)	D(54.9)
	R	B(14.4)	F(105)	B(14.4)	F(105)
Overall		**B(17.0)**	**E(65.0)**	**B(17.2)**	**E(66.1)**
ICU		**B(0.62)**	**E(0.85)**	**B(0.62)**	**E(0.85)**
NYS Route 31 at SR 481 NB Ramps					
Eastbound	L	A(3.5)	D(39.8)	A(3.6)	D(39.8)
	T	A(2.4)	D(46.8)	A(2.4)	D(48.8)
Westbound	T	A(3.3)	F(125)	A(3.3)	F(133)
	R	A(0.6)	B(10.8)	A(0.6)	B(10.4)
Northbound	L	D(41.9)	D(54.6)	D(41.9)	D(54.6)
	LT	D(42.1)	D(54.6)	D(42.1)	D(54.6)
	R	A(8.6)	D(35.9)	A(8.6)	D(36.1)
Overall		**A(8.7)**	**E(65.9)**	**A(8.7)**	**E(69.1)**
ICU		**A(0.46)**	**E(0.90)**	**A(0.46)**	**E(0.90)**
NYS Route 31 at Market Fair Mall					
Eastbound	T	A(2.6)	C(31.2)	A(2.7)	C(32.5)
	R	A(0.1)	A(0.3)	A(0.1)	A(0.3)
Westbound	L	A(0.3)	B(14.1)	A(0.3)	B(14.0)
	T	A(0.3)	B(10.3)	A(0.3)	B(10.9)
Northbound	L	D(36.2)	D(54.5)	D(36.2)	D(54.5)
	R	B(10.3)	C(24.4)	B(10.3)	C(24.7)
Overall		**A(1.6)**	**C(20.7)**	**A(1.7)**	**C(21.6)**
ICU		**A(0.33)**	**D(0.78)**	**A(0.34)**	**D(0.78)**
NYS Route 31 at Great Northern West					
Eastbound	L	B(15.4)	C(27.1)	B(15.3)	C(27.2)
	TR	A(1.9)	A(1.1)	A(2.1)	A(1.1)
Westbound	L	B(16.0)	A(0.0)	B(16.0)	A(0.0)
	T	C(24.5)	F(185)	C(24.8)	F(198)
	R	A(5.0)	A(2.1)	A(5.0)	A(2.0)
Northbound	LTR	A(0.0)	D(44.0)	A(0.0)	D(44.0)
Southbound	LT	D(35.0)	D(48.7)	D(35.0)	D(48.7)
	R	A(9.0)	B(11.5)	A(9.0)	B(11.5)
Overall		**B(13.5)**	**E(70.1)**	**B(13.5)**	**E(75.4)**
ICU		**A(0.39)**	**C(0.71)**	**A(0.39)**	**C(0.72)**
NYS Route 31 at Great Northern East					
Eastbound	L	A(4.1)	A(7.5)	A(4.2)	A(8.2)
	TR	A(4.5)	A(6.7)	A(4.7)	A(6.7)
Westbound	L	A(9.4)	B(10.8)	A(9.5)	B(10.9)
	TR	A(7.6)	B(12.9)	A(7.6)	B(13.2)
Northbound	LT	D(40.9)	D(42.9)	D(40.9)	D(42.9)
	R	B(13.9)	C(20.1)	B(13.9)	C(20.1)
Southbound	LT	C(26.5)	D(53.5)	C(26.5)	D(53.5)
	R	B(14.3)	B(11.4)	B(14.3)	B(11.4)
Overall		**A(8.8)**	**B(11.6)**	**A(8.8)**	**B(11.7)**
ICU		**A(0.53)**	**C(0.71)**	**A(0.54)**	**C(0.71)**
NYS Route 31 at Morgan Road					
Eastbound	L	B(16.2)	F(88.9)	B(16.1)	F(88.5)
	T	C(31.4)	D(42.3)	C(31.9)	D(45.6)
	R	A(3.2)	A(2.9)	A(3.2)	A(3.0)
Westbound	L	C(21.1)	D(35.3)	C(21.7)	D(39.6)
	TR	C(25.8)	F(166)	C(25.7)	F(182)
Northbound	L	C(24.4)	F(128)	C(22.2)	F(127)
	T	C(29.4)	D(40.8)	C(28.8)	D(40.8)
	R	A(4.0)	A(3.8)	A(3.8)	A(4.1)
Southbound	L	B(17.5)	C(23.1)	B(17.9)	C(23.1)
	TR	E(77.5)	D(53.9)	F(81.1)	D(53.9)
Overall		**C(32.8)**	**F(83.1)**	**C(33.1)**	**F(88.4)**
ICU		**C(0.66)**	**G(1.02)**	**C(0.66)**	**G(1.03)**

Clay Business Park
Level of Service Analysis
Summary

Intersection	Movement	2018 No Build		2018 Build	
		AM			
NYS Route 31 at Henry Clay Blvd.					
Eastbound	LTR	B(19.5)	F(193)	C(22.0)	F(206)
Westbound	LTR	D(54.5)	F(361)	E(69.3)	F(436)
Northbound	LTR	C(29.9)	F(448)	C(30.2)	F(450)
Southbound	LTR	C(20.0)	C(33.9)	C(20.1)	C(34.1)
Overall		**C(32.7)**	**F(289)**	**D(38.6)**	**F(319)**
ICU		**G(1.09)**	**H(1.54)**	**H(1.12)**	**H(1.61)**
NYS Route 31 at US Route 11					
Eastbound	L	B(11.4)	D(48.6)	B(11.6)	E(56.0)
	TR	C(30.8)	F(92.4)	C(31.4)	F(145)
Westbound	L	D(35.7)	E(61.0)	D(38.2)	E(61.0)
	TR	A(6.1)	D(37.3)	A(8.6)	D(38.5)
Northbound	L	D(35.1)	D(36.2)	D(36.6)	D(36.6)
	T	E(59.1)	E(63.8)	E(59.1)	E(63.8)
	R	C(24.7)	C(26.9)	C(24.7)	C(26.9)
Southbound	L	D(39.0)	D(47.4)	D(39.0)	D(47.4)
	TR	D(36.7)	D(35.0)	D(35.3)	D(35.1)
Overall		**C(27.7)**	**D(53.3)**	**C(28.2)**	**E(67.4)**
ICU		**C(0.66)**	**E(0.91)**	**C(0.66)**	**F(0.94)**
NYS Route 31 at I-81 SB Ramps					
Eastbound	TR	F(142)	F(159)	F(149)	F(202)
Westbound	L	C(31.1)	B(11.7)	C(31.4)	B(11.8)
	T	A(5.3)	A(9.7)	A(5.3)	A(9.8)
Southbound	LT	E(60.7)	E(65.8)	E(60.7)	E(65.8)
	R	B(13.7)	C(27.1)	B(18.4)	C(28.9)
Overall		**E(69.6)**	**F(80.3)**	**E(71.7)**	**F(102)**
ICU		**E(0.87)**	**E(0.82)**	**E(0.88)**	**E(0.85)**
NYS Route 31 at I-81 NB Ramps					
Eastbound	L	A(7.4)	D(50.4)	A(8.3)	E(57.5)
	T	A(8.7)	D(53.6)	A(9.4)	E(67.1)
Westbound	TR	C(25.6)	F(205)	C(26.9)	F(210)
Northbound	L	D(40.2)	D(49.4)	D(50.9)	E(57.2)
	T	C(31.4)	C(25.7)	C(31.0)	C(25.7)
	R	D(38.7)	F(140)	D(35.1)	F(142)
Southbound	R	E(68.6)	D(39.9)	E(63.2)	D(39.9)
Overall		**C(26.1)**	**F(113)**	**C(27.6)**	**F(119)**
ICU		**B(0.60)**	**F(0.93)**	**B(0.61)**	**F(0.95)**
NYS Route 31 at Lakeshore Rd Spur					
Eastbound	TR	A(5.9)	A(4.9)	A(5.9)	A(5.0)
Westbound	L	A(4.4)	B(17.0)	A(4.3)	B(17.2)
	TR	A(7.4)	D(42.1)	A(7.4)	D(42.5)
Northbound	LTR	C(22.5)	E(64.7)	C(22.5)	E(64.7)
Southbound	LT	D(44.0)	C(34.5)	D(44.0)	C(34.5)
Overall		**B(10.7)**	**C(26.0)**	**B(10.7)**	**C(26.1)**
ICU		**A(0.47)**	**C(0.68)**	**A(0.47)**	**C(0.68)**
NYS Route 31 at New Country Plaza					
Eastbound	L	A(3.8)	A(1.7)	A(3.8)	A(1.8)
	TR	A(5.0)	A(8.2)	A(5.0)	A(8.2)
Westbound	L	A(4.0)	A(3.2)	A(4.0)	A(3.2)
	TR	B(14.8)	A(9.7)	B(14.9)	A(9.8)
Northbound	L	D(37.1)	D(41.5)	D(37.1)	D(41.5)
	TR	B(10.0)	B(11.0)	B(10.0)	B(11.0)
Southbound	LTR	D(36.2)	B(18.2)	D(36.2)	B(18.2)
Overall		**B(11.1)**	**A(9.8)**	**B(11.1)**	**A(9.8)**
ICU		**B(0.60)**	**B(0.58)**	**B(0.60)**	**B(0.58)**
NYS Route 31 at CNS High School					
Eastbound	T	C(28.2)	C(23.9)	C(28.8)	C(25.8)
	R	A(3.6)	A(0.8)	A(3.7)	A(0.8)
Westbound	L	B(16.0)	B(13.4)	B(16.7)	B(13.4)
	T	B(10.9)	A(7.9)	B(11.2)	A(7.9)
Northbound	L	C(31.9)	D(36.4)	C(31.9)	D(36.4)
	R	A(3.1)	A(8.4)	A(3.1)	A(9.0)
Overall		**B(15.1)**	**B(16.3)**	**B(15.4)**	**B(17.1)**
ICU		**A(0.52)**	**C(0.73)**	**A(0.53)**	**C(0.74)**

Clay Business Park
Level of Service Analysis
Summary

Intersection	Movement	2018 No Build AM	2018 No Build PM	2018 Build AM	2018 Build PM
NYS Route 31 at Thompson Road					
Eastbound	L	A(3.3)	B(17.0)	A(3.2)	B(17.0)
	TR	A(9.1)	D(38.5)	A(9.0)	D(41.6)
Westbound	L	B(16.2)	F(377)	B(16.3)	F(418)
	TR	B(11.3)	C(20.8)	B(11.5)	C(20.8)
Northbound	LT	D(49.3)	F(110)	D(49.3)	F(110)
	R	B(11.7)	C(20.0)	B(11.7)	C(20.0)
Southbound	LTR	C(24.9)	D(43.7)	C(24.9)	D(43.7)
Overall		**B(16.5)**	**E(62.0)**	**B(16.5)**	**E(64.7)**
ICU		**C(0.73)**	**G(1.04)**	**D(0.73)**	**G(1.05)**
NYS Route 31 at Caughdenoy Road					
Eastbound	LT	A(0.5)	A(1.1)		
Westbound	LT	A(1.2)	A(7.1)		
Northbound	LTR	F(134)	F(999)	**N/A**	**N/A**
Southbound	LTR	F(57.8)	F(999)		
Overall		**F(31.0)**	F(999)		
ICU		**A(0.53)**	H(1.56)		
NYS Route 31 at Caughdenoy Road					
Eastbound	L			A(6.5)	B(15.7)
	T			B(14.2)	D(39.9)
	R			A(1.8)	A(4.5)
Westbound	L			A(6.3)	B(19.0)
	T			B(12.6)	C(30.4)
	R	**N/A**	**N/A**	A(1.7)	A(2.5)
Northbound	L			D(36.6)	D(49.0)
	T			C(33.5)	C(34.8)
	R			A(7.1)	B(18.8)
Southbound	L			C(26.6)	C(29.8)
	TR			B(19.8)	D(37.0)
Overall				**B(14.1)**	**C(27.3)**
ICU				**A(0.50)**	**C(0.72)**
Caughdenoy Road at Southern Drive					
Westbound	L	**N/A**	**N/A**	B(10.2)	B(11.8)
Southbound	R			A(9.0)	A(9.2)
	L			A(7.7)	A(7.7)
Caughdenoy Road at Northern Drive					
Westbound	L	**N/A**	**N/A**	A(9.5)	B(10.5)
Southbound	R			A(8.6)	A(9.2)
	L			A(7.7)	A(7.6)

Clay Business Park
Level of Service Analysis
Summary

Intersection	Movement	2021 No Build AM	2021 No Build PM	2021 Build AM	2021 Build PM
NYS Route 31 at Route 57					
Eastbound	L	D(44.2)	F(127)	D(44.2)	F(127)
	TR	C(24.2)	E(67.6)	C(24.8)	E(69.8)
Westbound	L	D(40.9)	F(115)	D(40.9)	F(115)
	TR	B(14.6)	D(58.8)	B(14.7)	E(67.4)
Northbound	L	D(40.6)	D(43.2)	D(40.6)	D(43.2)
	T	D(35.2)	D(36.6)	D(35.2)	D(36.6)
	R	B(18.4)	D(43.6)	B(18.6)	D(43.8)
Southbound	L	E(59.1)	F(162)	E(59.1)	F(162)
	TR	C(29.4)	C(32.9)	C(29.4)	C(32.9)
Overall		**C(26.1)**	**E(69.0)**	**C(26.3)**	**E(72.1)**
ICU		**B(0.63)**	**E(0.86)**	**B(0.63)**	**E(0.86)**
NYS Route 31 at Target Driveway					
Eastbound	L	D(35.7)	D(45.5)	D(35.7)	D(45.5)
	T	A(8.5)	B(19.6)	A(8.6)	B(19.7)
	R	A(2.6)	A(3.2)	A(2.6)	A(3.2)
Westbound	L	D(52.3)	E(55.6)	D(52.2)	E(55.6)
	T	A(2.4)	E(67.3)	A(2.4)	E(77.8)
	R	A(0.3)	A(0.9)	A(0.3)	A(0.9)
Northbound	L	D(40.0)	E(61.7)	D(40.0)	E(61.7)
	TR	C(23.5)	D(46.6)	C(23.5)	D(46.6)
Southbound	L	D(37.0)	D(46.5)	D(37.0)	D(46.5)
	TR	C(21.8)	F(81.2)	C(21.8)	F(82.0)
Overall		**B(12.0)**	**D(46.2)**	**B(12.0)**	**D(49.9)**
ICU		**A(0.44)**	**F(0.98)**	**A(0.44)**	**F(0.99)**
NYS Route 31 at Dell Center Drive					
Eastbound	L	D(40.6)	D(49.6)	D(40.5)	D(49.5)
	TR	A(6.7)	A(7.2)	A(6.8)	A(7.2)
Westbound	L	D(45.8)	D(44.6)	D(45.6)	D(43.2)
	T	A(9.9)	B(12.0)	A(10.0)	B(12.3)
	R	A(5.7)	A(0.8)	A(5.7)	A(0.8)
Northbound	L	D(39.4)	D(48.8)	D(39.4)	D(48.8)
	TR	A(0.2)	C(28.5)	A(0.2)	C(28.5)
Southbound	L	C(34.6)	E(55.9)	C(34.6)	E(55.9)
	TR	C(21.8)	B(13.9)	C(21.8)	B(13.9)
Overall		**B(11.6)**	**B(13.3)**	**B(11.5)**	**B(13.4)**
ICU		**A(0.43)**	**D(0.73)**	**A(0.43)**	**D(0.74)**
NYS Route 31 at Carling Road					
Eastbound	L	D(53.4)	E(72.9)	D(53.3)	E(72.8)
	TR	A(3.9)	D(36.5)	A(3.9)	D(36.6)
Westbound	L	C(32.6)	D(52.2)	C(32.9)	D(52.3)
	T	B(10.7)	E(74.5)	B(10.8)	F(87.0)
	R	A(1.3)	A(0.1)	A(1.3)	A(0.1)
Northbound	L	D(38.4)	E(55.3)	D(38.4)	E(55.3)
	TR	A(0.3)	B(19.9)	A(0.3)	B(19.9)
Southbound	L	D(38.2)	D(52.1)	D(38.2)	D(52.1)
	TR	B(14.8)	C(31.0)	B(14.8)	C(31.0)
Overall		**A(9.0)**	**D(50.0)**	**A(9.0)**	**D(54.5)**
ICU		**A(0.42)**	**F(0.94)**	**A(0.42)**	**F(0.95)**
NYS Route 31 at Wegmans East					
Eastbound	L	D(48.0)	D(49.2)	D(47.7)	D(49.1)
	TR	A(1.1)	C(22.7)	A(1.1)	C(22.9)
Westbound	L	D(40.9)	D(52.6)	D(41.0)	D(52.0)
	T	A(3.6)	E(60.5)	A(3.6)	E(69.4)
	R	A(0.7)	A(1.0)	A(0.7)	A(1.0)
Northbound	L	A(0.0)	D(49.8)	A(0.0)	D(49.8)
	TR	A(0.2)	C(23.2)	A(0.2)	C(23.2)
Southbound	L	D(37.6)	D(45.6)	D(37.6)	D(45.6)
	TR	B(14.1)	B(12.4)	B(14.1)	B(12.4)
Overall		**A(5.1)**	**D(39.0)**	**A(5.0)**	**D(42.7)**
ICU		**A(0.39)**	**E(0.84)**	**A(0.39)**	**E(0.84)**

Clay Business Park
Level of Service Analysis
Summary

Intersection	Movement	2021 No Build AM	2021 No Build PM	2021 Build AM	2021 Build PM
NYS Route 31 at Soule Road					
Eastbound	T	B(11.7)	F(159)	B(12.1)	F(162)
	R	B(10.8)	B(16.3)	B(10.8)	B(16.3)
Westbound	L	C(34.3)	D(41.2)	C(34.4)	D(42.2)
	T	A(3.9)	C(32.9)	A(4.0)	D(38.3)
Northbound	L	D(52.2)	F(145)	D(52.2)	F(145)
	R	B(14.1)	D(51.0)	B(16.6)	D(51.5)
Southbound	L	C(33.6)	C(31.9)	D(35.0)	C(32.1)
	T	D(38.9)	E(55.4)	D(38.9)	E(55.4)
	R	B(14.3)	F(115)	B(14.3)	F(117)
Overall		**B(17.3)**	**E(71.6)**	**B(17.7)**	**E(74.1)**
ICU		**B(0.64)**	**E(0.87)**	**B(0.64)**	**E(0.88)**
NYS Route 31 at SR 481 NB Ramps					
Eastbound	L	A(3.7)	D(40.6)	A(3.8)	D(40.6)
	T	A(2.5)	E(66.6)	A(2.7)	E(70.9)
Westbound	T	A(3.4)	F(145)	A(3.5)	F(160)
	R	A(0.6)	B(10.4)	A(0.6)	B(10.2)
Northbound	L	D(41.8)	E(57.7)	D(41.8)	E(57.7)
	LT	D(42.0)	E(58.0)	D(42.0)	E(58.0)
	R	A(8.5)	D(36.6)	A(8.5)	D(36.6)
Overall		**A(8.8)**	**E(78.5)**	**A(8.8)**	**F(84.6)**
ICU		**A(0.47)**	**E(0.92)**	**A(0.47)**	**E(0.93)**
NYS Route 31 at Market Fair Mall					
Eastbound	T	A(2.6)	D(41.1)	A(2.6)	D(44.0)
	R	A(0.1)	A(0.3)	A(0.1)	A(0.3)
Westbound	L	A(0.2)	B(14.5)	A(0.2)	B(14.3)
	T	A(0.3)	B(11.0)	A(0.3)	B(12.3)
Northbound	L	D(36.2)	D(54.6)	D(36.2)	D(54.6)
	R	B(10.3)	C(24.7)	B(10.3)	C(24.7)
Overall		**A(1.6)**	**C(25.5)**	**A(1.6)**	**C(27.1)**
ICU		**A(0.34)**	**D(0.80)**	**A(0.35)**	**D(0.80)**
NYS Route 31 at Great Northern West					
Eastbound	L	B(15.3)	C(27.7)	B(15.2)	C(27.8)
	TR	A(2.1)	A(1.1)	A(2.3)	A(1.1)
Westbound	L	B(16.5)	A(0.0)	B(16.5)	A(0.0)
	T	C(25.4)	F(198)	C(26.0)	F(222)
	R	A(5.0)	A(1.9)	A(5.0)	A(1.9)
Northbound	LTR	A(0.0)	D(44.0)	A(0.0)	D(44.0)
Southbound	LT	D(35.0)	D(48.7)	D(35.0)	D(48.7)
	R	A(9.0)	B(11.7)	A(9.0)	B(11.7)
Overall		**B(13.9)**	**E(74.5)**	**B(14.1)**	**F(84.5)**
ICU		**A(0.40)**	**C(0.72)**	**A(0.40)**	**C(0.74)**
NYS Route 31 at Great Northern East					
Eastbound	L	A(4.2)	A(8.8)	A(4.4)	B(10.1)
	TR	A(4.8)	A(6.9)	A(5.1)	A(6.9)
Westbound	L	A(9.8)	B(11.4)	A(9.9)	B(11.5)
	TR	A(7.8)	B(13.5)	A(7.9)	B(14.0)
Northbound	LT	D(40.8)	D(42.5)	D(40.8)	D(42.5)
	R	B(14.0)	B(19.8)	B(14.0)	B(19.8)
Southbound	LT	C(26.2)	D(53.5)	C(26.2)	D(53.5)
	R	B(13.9)	B(11.1)	B(13.9)	B(11.1)
Overall		**A(9.0)**	**B(12.0)**	**A(9.1)**	**B(12.3)**
ICU		**A(0.54)**	**C(0.72)**	**A(0.55)**	**C(0.72)**
NYS Route 31 at Morgan Road					
Eastbound	L	B(16.3)	F(98.8)	B(16.1)	F(98.0)
	T	C(31.7)	D(44.1)	C(32.5)	D(52.4)
	R	A(3.2)	A(2.9)	A(3.2)	A(3.0)
Westbound	L	C(21.3)	D(35.9)	C(22.7)	D(44.2)
	TR	C(26.0)	F(178)	C(25.7)	F(207)
Northbound	L	C(22.2)	F(142)	C(22.9)	F(143)
	T	C(28.6)	D(41.4)	C(30.0)	D(41.6)
	R	A(3.9)	A(4.3)	A(4.0)	A(4.7)
Southbound	L	B(17.7)	C(23.3)	B(18.6)	C(23.5)
	TR	F(87.6)	D(56.9)	F(93.5)	D(56.9)
Overall		**C(34.8)**	**F(89.1)**	**D(35.8)**	**F(100)**
ICU		**C(0.67)**	**G(1.05)**	**C(0.68)**	**G(1.06)**

Clay Business Park
Level of Service Analysis
Summary

Intersection	Movement	2021 No Build		2021 Build	
		AM			
NYS Route 31 at Henry Clay Blvd.					
Eastbound	LTR	C(20.9)	F(206)	C(207.2)	F(228)
Westbound	LTR	E(66.4)	F(381)	F(105)	F(527)
Northbound	LTR	C(30.9)	F(472)	C(31.5)	F(474)
Southbound	LTR	B(19.9)	C(34.3)	C(20.0)	D(35.1)
Overall		**D(37.4)**	**F(306)**	**D(52.3)**	**F(365)**
ICU		**G(1.11)**	**H(1.56)**	**H(1.16)**	**H(1.69)**
NYS Route 31 at US Route 11					
Eastbound	L	B(11.6)	E(55.5)	B(12.0)	E(72.2)
	TR	C(31.8)	F(107)	C(33.1)	F(215)
Westbound	L	D(40.0)	E(62.9)	D(44.9)	E(62.9)
	TR	A(6.1)	D(38.6)	A(9.7)	D(41.0)
Northbound	L	D(35.2)	D(36.8)	D(39.1)	D(37.9)
	T	E(59.9)	E(65.5)	E(59.9)	E(65.5)
	R	C(24.5)	C(27.3)	C(24.5)	C(27.3)
Southbound	L	D(39.5)	D(52.2)	D(40.2)	D(52.4)
	TR	D(36.8)	D(35.7)	D(36.4)	D(35.5)
Overall		**C(28.8)**	**D(57.6)**	**C(29.8)**	**F(88.6)**
ICU		**C(0.67)**	**F(0.93)**	**C(0.68)**	**F(0.99)**
NYS Route 31 at I-81 SB Ramps					
Eastbound	TR	F(159)	F(183)	F(172)	F(264)
Westbound	L	D(35.9)	B(12.0)	D(37.3)	B(12.4)
	T	A(5.9)	B(10.1)	A(6.1)	B(10.6)
Southbound	LT	E(61.2)	E(67.0)	E(60.6)	E(67.0)
	R	B(13.6)	C(29.5)	C(13.9)	C(33.2)
Overall		**E(77.7)**	**F(91.1)**	**F(82.7)**	**F(133)**
ICU		**E(0.90)**	**E(0.84)**	**E(0.91)**	**E(0.90)**
NYS Route 31 at I-81 NB Ramps					
Eastbound	L	A(9.0)	E(58.9)	A(10.0)	E(71.3)
	T	A(9.6)	E(65.7)	B(11.9)	F(91.4)
Westbound	TR	C(27.9)	F(226)	C(32.0)	F(240)
Northbound	L	D(39.1)	D(53.0)	E(66.2)	F(83.8)
	T	C(30.9)	C(25.7)	C(29.9)	C(25.7)
	R	D(41.5)	F(158)	C(33.7)	F(161)
Southbound	R	E(70.6)	D(40.0)	E(64.4)	D(39.5)
Overall		**C(27.9)**	**F(127)**	**C(32.4)**	**F(142)**
ICU		**B(0.61)**	**F(0.95)**	**C(0.66)**	**F(0.98)**
NYS Route 31 at Lakeshore Rd Spur					
Eastbound	TR	A(6.0)	A(5.0)	A(6.1)	A(5.1)
Westbound	L	A(4.4)	B(17.2)	A(4.2)	B(17.4)
	TR	A(7.5)	D(46.0)	A(7.5)	D(46.8)
Northbound	LTR	C(22.5)	E(66.8)	C(22.5)	E(66.8)
Southbound	LT	D(44.5)	C(34.6)	D(44.5)	C(34.6)
Overall		**B(10.9)**	**C(27.8)**	**B(10.8)**	**C(27.9)**
ICU		**A(0.48)**	**C(0.69)**	**A(0.48)**	**C(0.69)**
NYS Route 31 at New Country Plaza					
Eastbound	L	A(3.9)	A(1.8)	A(4.0)	A(1.8)
	TR	A(5.1)	A(8.4)	A(5.2)	A(8.5)
Westbound	L	A(4.0)	A(3.3)	A(4.0)	A(3.4)
	TR	B(15.2)	B(10.2)	B(15.3)	B(10.4)
Northbound	L	D(37.1)	D(41.7)	D(37.1)	D(41.7)
	TR	A(9.9)	B(10.9)	A(9.9)	B(10.9)
Southbound	LTR	D(36.5)	B(18.9)	D(36.5)	B(18.9)
Overall		**B(11.3)**	**B(10.1)**	**B(11.4)**	**B(10.2)**
ICU		**B(0.61)**	**B(0.59)**	**B(0.61)**	**B(0.59)**
NYS Route 31 at CNS High School					
Eastbound	T	C(29.9)	C(27.8)	C(30.3)	C(32.6)
	R	A(4.2)	A(0.8)	A(4.2)	A(0.8)
Westbound	L	B(18.1)	B(14.0)	B(18.5)	B(14.0)
	T	B(11.5)	A(8.3)	B(11.8)	A(8.3)
Northbound	L	C(31.8)	D(36.3)	C(31.8)	D(36.3)
	R	A(3.0)	A(9.4)	A(3.0)	B(10.2)
Overall		**B(16.1)**	**B(18.1)**	**B(16.3)**	**C(20.4)**
ICU		**A(0.53)**	**D(0.74)**	**A(0.54)**	**D(0.76)**

Clay Business Park
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Summary

Intersection	Movement	2021 No Build AM	2021 No Build PM	2021 Build AM	2021 Build PM
NYS Route 31 at Thompson Road					
Eastbound	L	A(3.4)	B(17.6)	A(3.4)	B(17.7)
	TR	A(9.5)	D(42.1)	A(9.7)	D(49.1)
Westbound	L	B(18.3)	F(441)	B(18.7)	F(441)
	TR	B(11.7)	C(21.2)	B(12.0)	C(21.4)
Northbound	LT	D(49.3)	F(123)	D(49.3)	F(123)
	R	B(12.0)	C(20.4)	B(12.0)	C(20.4)
Southbound	LTR	C(24.9)	D(52.4)	C(24.9)	D(52.4)
Overall		**B(17.0)**	**E(69.7)**	**B(17.1)**	**E(71.6)**
ICU		**C(0.74)**	**G(1.06)**	**D(0.74)**	**G(1.08)**
NYS Route 31 at Caughdenoy Road					
Eastbound	LT	A(0.5)	A(1.2)	**N/A**	**N/A**
Westbound	LT	A(1.2)	A(7.3)		
Northbound	LTR	F(153)	F(999)		
Southbound	LTR	F(66.4)	F(999)		
Overall		**F(35.0)**	F(999)		
ICU		**A(0.54)**	H(1.57)		
NYS Route 31 at Caughdenoy Road		**N/A**	**N/A**		
Eastbound	L			A(7.2)	C(20.2)
	T			B(15.6)	D(43.2)
	R			A(1.8)	A(3.5)
Westbound	L			A(6.4)	C(22.7)
	T			B(14.8)	D(37.2)
	R			A(1.6)	A(1.8)
Northbound	L			D(36.0)	D(53.0)
	T			D(38.6)	D(45.7)
	R			A(7.0)	C(30.1)
Southbound	L			C(30.9)	D(43.6)
	TR			B(19.0)	C(34.4)
Overall				**B(15.0)**	**C(32.8)**
ICU				**A(0.51)**	**D(0.81)**
Caughdenoy Road at Southern Drive		**N/A**	**N/A**		
Westbound	L			B(11.1)	C(15.4)
Southbound	R			A(9.3)	A(9.4)
	L			A(8.0)	A(7.8)
Caughdenoy Road at Northern Drive		**N/A**	**N/A**		
Westbound	L			A(9.7)	B(11.5)
Southbound	R			A(8.6)	A(9.2)
	L			A(7.6)	A(7.7)

Clay Business Park
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Summary

Intersection		2024 No Build AM	2024 No Build PM	2024 No Build Saturday	2024 Build AM	2024 Build PM	2024 Build Saturday
NYS Route 31 at Route 57							
Eastbound	L	D(44.2)	F(134)	E(56.0)	D(44.2)	F(134)	E(56.0)
	TR	C(25.2)	E(78.0)	D(39.7)	C(26.4)	F(82.7)	D(40.9)
Westbound	L	D(40.8)	F(125)	F(134)	D(40.8)	F(125)	F(134)
	TR	B(14.7)	E(68.8)	C(30.2)	B(14.8)	F(87.1)	C(31.5)
Northbound	L	D(40.9)	D(43.8)	D(40.7)	D(40.9)	D(43.8)	D(40.7)
	T	D(35.5)	D(36.7)	D(36.2)	D(35.5)	D(36.7)	D(36.2)
	R	C(21.6)	D(46.6)	D(36.4)	C(22.1)	D(46.6)	D(36.4)
Southbound	L	D(47.3)	F(173)	F(117)	D(47.3)	F(173)	F(117)
	TR	C(29.4)	C(33.0)	C(32.2)	C(29.4)	C(33.0)	C(32.2)
Overall		**C(26.4)**	**E(76.9)**	**D(51.9)**	**C(26.9)**	**F(83.6)**	**D(52.4)**
ICU		**B(0.64)**	**E(0.88)**	**D(0.81)**	**C(0.65)**	**E(0.88)**	**D(0.81)**
NYS Route 31 at Target Driveway							
Eastbound	L	D(35.7)	D(45.8)	D(47.1)	D(35.7)	D(45.8)	D(47.1)
	T	A(8.7)	C(20.0)	C(23.4)	A(8.8)	C(20.1)	C(23.5)
	R	A(2.6)	A(3.2)	A(2.7)	A(2.6)	A(3.2)	A(2.7)
Westbound	L	D(52.1)	E(55.7)	E(59.6)	D(52.1)	E(55.3)	E(58.8)
	T	A(2.5)	F(80.6)	F(98.5)	A(2.5)	F(102)	F(109)
	R	A(0.3)	A(0.9)	A(1.0)	A(0.3)	A(0.9)	A(0.9)
Northbound	L	D(40.0)	E(62.9)	E(76.5)	D(40.0)	E(62.9)	E(76.5)
	TR	C(23.9)	D(49.9)	D(43.8)	C(23.9)	D(49.9)	D(43.8)
Southbound	L	D(37.0)	D(46.8)	D(50.2)	D(37.0)	D(46.8)	D(50.2)
	TR	C(21.7)	F(92.8)	F(99.4)	C(21.7)	F(93.5)	F(99.4)
Overall		**B(12.1)**	**D(52.0)**	**E(57.2)**	**B(12.0)**	**E(59.3)**	**E(60.2)**
ICU		**A(0.45)**	**G(1.00)**	**F(1.00)**	**A(0.45)**	**G(1.02)**	**G(1.00)**
NYS Route 31 at Dell Center Drive							
Eastbound	L	D(40.5)	D(49.4)	E(72.9)	D(40.4)	D(49.3)	E(72.8)
	TR	A(6.8)	A(7.3)	B(12.1)	A(6.8)	A(7.3)	B(12.1)
Westbound	L	D(46.0)	D(43.1)	D(53.5)	D(45.8)	D(43.0)	D(53.3)
	T	B(10.0)	B(12.4)	C(32.3)	B(10.1)	B(13.7)	D(37.3)
	R	A(5.7)	A(0.8)	A(1.3)	A(5.7)	A(0.9)	A(1.4)
Northbound	L	D(39.4)	D(49.2)	D(36.8)	D(39.4)	D(49.2)	D(36.8)
	TR	A(0.2)	C(28.5)	A(9.5)	A(0.2)	C(28.5)	A(9.5)
Southbound	L	C(34.6)	E(56.3)	E(76.2)	C(34.6)	E(56.3)	E(76.2)
	TR	C(21.4)	B(13.8)	B(10.5)	C(21.4)	B(13.8)	B(10.5)
Overall		**B(11.7)**	**B(13.5)**	**C(25.3)**	**B(11.6)**	**B(14.1)**	**C(27.2)**
ICU		**A(0.43)**	**D(0.75)**	**D(0.79)**	**A(0.44)**	**D(0.77)**	**D(0.80)**
NYS Route 31 at Carling Road							
Eastbound	L	D(53.7)	E(75.2)	E(66.8)	D(53.6)	E(75.1)	E(66.6)
	TR	A(3.9)	D(37.0)	C(26.3)	A(4.0)	D(37.3)	C(26.5)
Westbound	L	C(32.9)	D(52.3)	E(64.2)	C(32.6)	D(52.4)	E(63.6)
	T	B(11.1)	F(91.9)	E(57.6)	B(11.1)	F(114)	E(65.6)
	R	A(1.3)	A(0.1)	A(0.3)	A(1.3)	A(0.1)	A(0.3)
Northbound	L	D(38.7)	E(55.6)	E(59.5)	D(38.7)	E(55.6)	E(59.5)
	TR	A(0.4)	B(19.9)	D(41.9)	A(0.4)	B(19.9)	D(41.9)
Southbound	L	D(38.3)	D(52.5)	D(54.7)	D(38.3)	D(52.5)	D(54.7)
	TR	B(14.6)	C(31.4)	B(16.5)	B(14.6)	C(31.4)	B(16.5)
Overall		**A(9.2)**	**E(56.2)**	**D(40.7)**	**A(9.2)**	**E(64.5)**	**D(43.5)**
ICU		**A(0.42)**	**F(0.96)**	**F(0.93)**	**A(0.43)**	**F(0.98)**	**F(0.94)**
NYS Route 31 at Wegmans East							
Eastbound	L	D(47.8)	D(49.0)	D(47.8)	D(47.8)	D(48.8)	D(47.7)
	TR	A(1.2)	C(24.1)	C(23.2)	A(1.2)	C(24.4)	C(23.3)
Westbound	L	D(40.8)	D(51.8)	D(47.2)	D(40.9)	D(49.1)	D(47.4)
	T	A(3.8)	E(77.1)	C(24.4)	A(3.8)	F(93.6)	C(25.0)
	R	A(0.7)	A(1.1)	A(2.3)	A(0.7)	A(1.0)	A(2.3)
Northbound	L	A(0.0)	D(50.1)	D(54.5)	A(0.0)	D(50.1)	D(54.5)
	TR	A(0.2)	C(23.2)	C(23.6)	A(0.2)	C(23.2)	C(23.6)
Southbound	L	D(37.7)	D(45.5)	D(46.8)	D(37.7)	D(45.5)	D(46.8)
	TR	B(13.8)	B(12.5)	B(11.6)	B(13.8)	B(12.5)	B(11.6)
Overall		**A(5.2)**	**D(45.9)**	**C(24.7)**	**A(5.1)**	**D(52.9)**	**C(25.0)**
ICU		**A(0.40)**	**E(0.86)**	**D(0.76)**	**A(0.40)**	**E(0.88)**	**D(0.77)**

Clay Business Park
Level of Service Analysis
Summary

Intersection		2024 No Build			2024 Build		
		AM	PM	Saturday	AM	PM	Saturday
NYS Route 31 at Soule Road							
Eastbound	T	B(12.4)	F(172)	E(69.2)	B(12.9)	F(178)	E(72.1)
	R	B(11.8)	B(17.8)	A(7.3)	B(11.7)	B(17.8)	A(7.2)
Westbound	L	D(35.0)	D(42.8)	E(68.4)	D(35.2)	D(46.0)	E(69.4)
	T	A(4.0)	D(40.9)	B(14.6)	A(4.0)	E(56.3)	B(15.1)
Northbound	L	D(53.4)	F(157)	F(285)	D(53.4)	F(157)	F(285)
	R	B(15.9)	D(54.1)	F(80.6)	B(20.0)	E(55.9)	F(83.6)
Southbound	L	C(34.1)	C(32.3)	D(36.0)	D(36.6)	C(32.6)	D(36.3)
	T	D(38.9)	E(56.6)	D(44.6)	D(38.9)	E(56.6)	D(44.6)
	R	B(14.2)	F(130)	F(999)	B(14.2)	F(132.6)	F(999)
Overall		**B(18.0)**	**E(79.1)**	**F(170)**	**B(18.5)**	**F(85.8)**	**F(172)**
ICU		**C(0.65)**	**E(0.89)**	**E(0.84)**	**C(0.65)**	**E(0.91)**	**E(0.85)**
NYS Route 31 at SR 481 NB Ramps							
Eastbound	L	A(4.1)	D(41.1)	D(40.6)	A(4.2)	D(41.1)	D(40.0)
	T	A(2.7)	F(89.6)	A(7.5)	A(3.0)	F(97.7)	A(7.8)
Westbound	T	A(3.6)	F(178)	C(27.9)	A(3.6)	F(197)	C(29.7)
	R	A(0.6)	B(10.4)	A(4.0)	A(0.6)	B(10.1)	A(3.8)
Northbound	L	D(41.8)	E(60.5)	D(51.8)	D(41.8)	E(62.2)	D(51.7)
	LT	D(42.0)	E(60.9)	D(52.8)	D(42.0)	E(62.6)	D(52.6)
	R	A(8.3)	D(37.1)	D(50.2)	A(8.3)	D(37.3)	D(50.3)
Overall		**A(9.0)**	**F(92.9)**	**C(23.1)**	**A(8.9)**	**F(105)**	**C(23.8)**
ICU		**A(0.48)**	**F(0.94)**	**D(0.79)**	**A(0.48)**	**F(0.96)**	**D(0.80)**
NYS Route 31 at Market Fair Mall							
Eastbound	T	A(2.6)	D(52.9)	C(34.4)	A(2.7)	D(58.0)	D(38.1)
	R	A(0.1)	A(0.2)	A(0.3)	A(0.1)	A(0.2)	A(0.3)
Westbound	L	A(0.2)	B(14.9)	C(23.0)	A(0.2)	B(14.5)	C(22.8)
	T	A(0.3)	B(11.7)	B(13.2)	A(0.2)	B(14.3)	B(14.2)
Northbound	L	D(36.3)	D(54.8)	D(54.2)	D(36.3)	D(54.8)	D(54.2)
	R	B(10.1)	C(24.9)	C(21.9)	B(10.1)	C(24.9)	C(21.9)
Overall		**A(1.6)**	**C(31.1)**	**C(23.7)**	**A(1.7)**	**C(34.1)**	**C(25.5)**
ICU		**A(0.34)**	**D(0.82)**	**D(0.79)**	**A(0.36)**	**E(0.82)**	**D(0.79)**
NYS Route 31 at Great Northern West							
Eastbound	L	B(15.2)	C(28.2)	C(29.2)	B(15.0)	C(28.3)	C(29.1)
	TR	A(2.2)	A(1.1)	A(1.2)	A(2.6)	A(1.3)	A(1.2)
Westbound	L	B(17.0)	A(0.0)	C(29.5)	B(17.5)	A(0.0)	C(29.5)
	T	C(26.5)	F(212)	F(185)	C(27.6)	F(256)	F(204)
	R	A(5.0)	A(1.8)	A(2.0)	A(5.0)	A(1.7)	A(2.4)
Northbound	LT	A(0.0)	D(44.0)	C(32.3)	A(0.0)	D(44.0)	C(32.3)
Southbound	R	D(35.2)	D(48.7)	D(51.3)	D(35.2)	D(48.7)	D(51.3)
	LT	A(9.0)	B(11.8)	B(11.9)	A(9.0)	B(11.8)	B(11.9)
Overall	R	**B(14.5)**	**E(79.3)**	**E(64.5)**	**B(14.9)**	**F(97.9)**	**E(71.2)**
ICU		**A(0.40)**	**C(0.74)**	**D(0.79)**	**A(0.41)**	**D(0.77)**	**D(0.80)**
NYS Route 31 at Great Northern East							
Eastbound	L	A(4.5)	B(10.1)	B(13.9)	A(4.8)	B(13.0)	B(16.3)
	TR	A(5.2)	A(7.1)	A(2.1)	A(5.7)	A(7.2)	A(2.1)
Westbound	L	B(10.0)	B(12.2)	B(11.3)	B(10.4)	B(12.5)	B(11.3)
	TR	A(8.0)	B(14.0)	B(14.9)	A(8.1)	B(15.3)	B(15.4)
Northbound	LT	D(41.0)	D(43.0)	F(96.9)	D(41.0)	D(43.0)	F(96.9)
	R	B(13.8)	C(20.0)	B(17.3)	B(13.8)	C(20.0)	B(17.3)
Southbound	LT	C(26.2)	D(53.5)	D(53.3)	C(26.2)	D(53.5)	D(53.3)
	R	B(13.7)	B(11.2)	B(12.9)	B(13.7)	B(11.2)	B(12.9)
Overall		**A(9.3)**	**B(12.4)**	**B(13.5)**	**A(9.4)**	**B(13.0)**	**B(13.7)**
ICU		**A(0.55)**	**C(0.73)**	**C(0.72)**	**A(0.56)**	**D(0.74)**	**C(0.73)**
NYS Route 31 at Morgan Road							
Eastbound	L	B(16.4)	F(112)	C(28.2)	B(16.3)	F(111)	C(28.7)
	T	C(32.1)	D(46.8)	D(39.0)	C(33.7)	E(67.8)	D(45.2)
	R	A(3.2)	A(3.0)	A(2.5)	A(3.7)	A(3.7)	A(2.7)
Westbound	L	C(21.8)	D(36.8)	C(21.6)	C(24.9)	E(55.8)	C(23.7)
	TR	C(26.2)	F(190)	F(87.3)	C(25.9)	F(246)	F(105)
Northbound	L	C(22.6)	F(158)	F(247)	C(23.5)	F(157)	F(244)
	T	C(28.8)	D(42.2)	D(36.2)	C(30.5)	D(42.6)	D(36.4)
	R	A(3.9)	A(4.8)	A(5.8)	A(4.0)	A(5.7)	A(6.2)
Southbound	L	B(17.9)	C(23.6)	B(19.0)	B(19.1)	C(24.3)	B(19.1)
	TR	F(99.5)	E(59.7)	D(42.8)	F(108)	E(59.7)	D(42.7)
Overall		**D(37.4)**	**F(95.6)**	**E(70.7)**	**D(38.8)**	**F(118)**	**E(76.0)**
ICU		**C(0.68)**	**G(1.07)**	**E(0.87)**	**C(0.70)**	**H(1.10)**	**E(0.88)**

Clay Business Park
Level of Service Analysis
Summary

Intersection		2024 No Build AM	2024 No Build PM	2024 No Build Saturday	2024 No Build AM	2024 No Build PM	Sat
NYS Route 31 at Henry Clay Blvd.							
Eastbound	LTR	C(22.8)	F(216)	F(148)	D(37.6)	F(256)	F(169)
Westbound	LTR	F(82.8)	F(412)	F(403)	F(154)	F(656)	F(577)
Northbound	LTR	C(32.1)	F(497)	F(86.4)	C(33.5)	F(500)	F(88.6)
Southbound	LTR	B(19.9)	C(34.7)	B(10.0)	C(20.4)	D(36.1)	B(10.1)
Overall		**D(43.7)**	**F(326)**	**F(218)**	**E(72.6)**	**F(429)**	**F(296)**
ICU		**H(1.13)**	**H(1.60)**	**H(1.33)**	**H(1.22)**	**H(1.83)**	**H(1.45)**
NYS Route 31 at US Route 11							
Eastbound	L	B(11.8)	E(63.3)	B(19.6)	B(12.6)	F(86.7)	C(20.4)
	TR	C(33.1)	F(120)	D(52.3)	D(35.5)	F(330)	F(87.2)
Westbound	L	D(44.9)	E(67.5)	E(67.7)	D(55.0)	E(67.5)	E(68.6)
	TR	A(6.1)	D(40.2)	C(23.0)	B(11.4)	D(46.1)	C(24.1)
Northbound	L	D(35.3)	D(37.5)	D(44.8)	D(43.1)	D(39.5)	D(48.0)
	T	E(60.6)	E(68.8)	E(56.2)	E(60.6)	E(66.8)	E(56.4)
	R	C(24.3)	C(27.7)	C(28.0)	C(24.3)	C(27.7)	C(28.1)
Southbound	L	D(40.2)	D(58.3)	D(41.2)	D(40.9)	D(58.5)	D(41.6)
	TR	D(37.1)	D(36.3)	D(38.5)	C(34.8)	D(35.9)	D(38.4)
Overall		**C(30.0)**	**E(62.1)**	**D(41.9)**	**C(31.8)**	**F(127)**	**D(51.6)**
ICU		**C(0.68)**	**F(0.95)**	**E(0.86)**	**C(0.70)**	**G(1.06)**	**E(0.91)**
NYS Route 31 at I-81 SB Ramps							
Eastbound	TR	F(177)	F(210)	D(39.5)	F(199)	F(356)	E(64.8)
Westbound	L	D(42.0)	B(12.9)	B(18.5)	D(54.8)	B(13.6)	B(16.8)
	T	A(6.3)	B(10.8)	A(4.0)	A(7.4)	B(12.3)	A(4.5)
Southbound	LT	E(61.6)	E(67.6)	D(48.8)	E(55.2)	E(67.6)	D(47.3)
	R	B(14.9)	C(31.6)	C(31.5)	D(53.5)	D(38.7)	D(38.9)
Overall		**F(86.9)**	**F(104)**	**C(25.2)**	**F(97.2)**	**F(182)**	**D(36.8)**
ICU		**F(0.92)**	**E(0.86)**	**D(0.73)**	**F(0.94)**	**F(0.97)**	**D(0.77)**
NYS Route 31 at I-81 NB Ramps							
Eastbound	L	A(9.8)	E(67.5)	D(50.8)	B(10.6)	F(95.4)	D(46.0)
	T	B(10.5)	E(78.5)	A(2.8)	B(14.5)	F(125)	A(2.9)
Westbound	TR	C(31.7)	F(250)	C(28.1)	D(37.0)	F(266)	C(30.5)
Northbound	L	D(38.1)	E(61.2)	C(34.2)	F(187.4)	F(158)	D(38.9)
	T	C(30.4)	C(25.9)	C(30.6)	C(29.7)	C(25.9)	C(30.2)
	R	D(44.2)	F(177)	C(29.8)	D(35.4)	F(182)	C(30.2)
Southbound	R	E(72.9)	D(40.0)	D(41.7)	E(65.4)	D(39.5)	D(40.5)
Overall		**C(30.3)**	**F(142)**	**C(25.3)**	**D(54.8)**	**F(172)**	**C(26.2)**
ICU		**B(0.62)**	**F(0.97)**	**C(0.72)**	**C(0.72)**	**G(1.03)**	**D(0.75)**
NYS Route 31 at Lakeshore Rd Spur							
Eastbound	TR	A(6.3)	A(5.2)	A(5.1)	A(6.3)	A(5.4)	A(5.2)
Westbound	L	A(4.4)	B(17.6)	A(6.0)	A(4.2)	B(18.2)	A(5.0)
	TR	A(7.7)	D(51.9)	A(8.1)	A(7.6)	D(54.1)	A(8.1)
Northbound	LTR	C(22.0)	E(70.4)	C(21.6)	C(22.0)	E(70.4)	C(21.6)
Southbound	LT	D(44.1)	C(34.7)	D(41.2)	D(44.1)	C(34.7)	D(41.2)
Overall		**B(11.0)**	**C(30.6)**	**A(8.4)**	**B(10.9)**	**C(31.1)**	**A(8.3)**
ICU		**A(0.49)**	**C(0.71)**	**B(0.59)**	**A(0.50)**	**C(0.71)**	**B(0.59)**
NYS Route 31 at New Country Plaza							
Eastbound	L	A(4.1)	A(1.9)	A(2.3)	A(4.2)	A(1.8)	A(2.4)
	TR	A(5.3)	A(8.6)	A(5.7)	A(5.3)	A(8.8)	A(5.6)
Westbound	L	A(4.2)	A(3.5)	A(3.0)	A(4.0)	A(3.7)	A(3.0)
	TR	B(16.0)	B(10.9)	A(8.1)	B(16.5)	B(11.2)	A(8.2)
Northbound	L	D(36.9)	D(41.8)	D(41.5)	D(36.9)	D(41.8)	D(41.5)
	TR	A(9.6)	B(10.8)	B(11.7)	A(9.6)	B(10.8)	B(11.7)
Southbound	LTR	D(36.7)	B(18.3)	B(17.4)	D(36.7)	B(18.3)	B(17.4)
Overall		**B(11.6)**	**B(10.5)**	**A(8.2)**	**B(11.8)**	**B(10.7)**	**A(8.2)**
ICU		**B(0.62)**	**B(0.61)**	**B(0.56)**	**B(0.63)**	**B(0.61)**	**B(0.56)**
NYS Route 31 at CNS High School							
Eastbound	T	C(31.0)	C(32.6)	A(8.6)	C(31.8)	D(45.0)	A(9.2)
	R	A(4.7)	A(0.8)	A(0.0)	A(4.7)	A(0.7)	A(0.0)
Westbound	L	C(20.1)	B(14.7)	A(2.3)	C(21.2)	B(14.7)	A(2.3)
	T	B(11.9)	A(8.6)	A(3.8)	B(12.6)	A(8.7)	A(3.8)
Northbound	L	C(32.1)	D(36.2)	D(35.3)	C(32.1)	D(36.2)	D(35.3)
	R	A(3.0)	B(10.3)	B(10.7)	A(3.0)	B(11.7)	B(10.7)
Overall		**B(16.8)**	**C(20.4)**	**A(6.6)**	**B(17.3)**	**C(26.2)**	**A(6.9)**
ICU		**A(0.54)**	**D(0.75)**	**B(0.62)**	**A(0.55)**	**D(0.78)**	**B(0.63)**

Clay Business Park
Level of Service Analysis
Summary

Intersection		2024 No Build			2024 Build		
		AM	PM	Saturday	AM	PM	Saturday
NYS Route 31 at Thompson Road							
Eastbound	L	A(3.6)	B(109)	B(12.4)	A(7.8)	B(18.4)	B(12.6)
	TR	B(10.4)	D(46.0)	E(68.8)	F(309)	E(62.7)	E(76.8)
Westbound	L	C(21.2)	F(464)	E(55.2)	F(430)	F(464)	E(55.2)
	TR	B(12.3)	C(21.6)	C(26.3)	B(12.8)	C(22.0)	C(26.7)
Northbound	LT	D(49.3)	F(137)	F(100)	D(49.3)	F(137)	F(100)
	R	B(12.1)	C(20.8)	A(9.6)	C(24.9)	C(20.8)	A(8.8)
Southbound	LTR	C(24.5)	E(62.8)	F(146)	C(24.5)	E(62.8)	F(146)
Overall		**B(17.6)**	**E(76.2)**	**E(62.4)**	**F(204)**	**F(81.0)**	**E(65.2)**
ICU		**D(0.75)**	**G(1.08)**	**F(0.96)**	**H(1.18)**	**H(1.11)**	**F(0.97)**
NYS Route 31 at Caughdenoy Road							
Eastbound	LT	A(0.6)	A(1.2)	A(0.8)			
Westbound	LT	A(1.2)	A(7.5)	D(25.9)			
Northbound	LTR	F(181)	F(999)	F(999)	**N/A**	**N/A**	**N/A**
Southbound	LTR	F(77.2)	F(999)	F(999)			
Overall		**F(40.9)**	F(999)	**F(999)**			
ICU		**A(0.55)**	H(1.59)	**H(1.55)**			
NYS Route 31 at Caughdenoy Road							
Eastbound	L				B(11.2)	E(57.0)	C(24.9)
	T				B(19.5)	E(74.0)	E(76.5)
	R				A(1.8)	A(3.2)	B(17.2)
Westbound	L				A(7.7)	D(38.4)	F(108)
	T				B(18.2)	E(56.5)	D(35.5)
	R	**N/A**	**N/A**	**N/A**	A(2.4)	A(1.4)	A(1.9)
Northbound	L				C(22.6)	E(71.4)	F(91.6)
	T				D(39.8)	F(116)	D(40.7)
	R				A(6.1)	E(69.8)	B(13.9)
Southbound	L				C(29.2)	F(82.3)	E(67.3)
	TR				B(18.6)	F(86.5)	F(113)
Overall					**B(15.4)**	**E(61.3)**	**E(56.1)**
Caughdenoy Road at Southern Drive							
Westbound	L	**N/A**	**N/A**	**N/A**	B(12.8)	F(54.5)	B(12.5)
Southbound	R				B(12.8)	A(9.6)	A(9.1)
	L				A(8.7)	A(8.0)	A(7.7)
Caughdenoy Road at Northern Drive							
Westbound	L	**N/A**	**N/A**	**N/A**	A(10.0)	B(14.2)	B(10.4)
Southbound	R				A(8.6)	A(9.3)	A(8.8)
	L				A(7.9)	A(7.8)	A(7.5)

Clay Business Park
Level of Service Analysis
Summary

Intersection	Movement	2027 No Build			2027 Build		
		AM	PM	Saturday	AM	PM	Saturday
NYS Route 31 at Route 57							
Eastbound	L	D(44.6)	F(142)	E(57.4)	D(44.6)	F(142)	E(57.4)
	TR	C(26.3)	F(91.2)	D(43.7)	C(28.1)	F(97.7)	D(45.7)
Westbound	L	D(40.8)	F(136)	F(146)	D(40.7)	F(136)	F(146)
	TR	B(14.9)	F(80.6)	C(32.4)	B(15.0)	F(110)	C(35.0)
Northbound	L	D(41.1)	D(44.4)	D(40.9)	D(41.1)	D(44.4)	D(40.9)
	T	D(35.5)	D(36.7)	D(36.2)	D(35.5)	D(36.7)	D(36.2)
	R	C(22.5)	D(50.2)	D(38.2)	C(23.1)	D(50.2)	D(38.4)
Southbound	L	D(47.7)	F(185)	F(125)	D(47.7)	F(185)	F(125)
	TR	C(29.8)	C(33.0)	C(32.2)	C(29.8)	C(33.0)	C(32.2)
Overall		**C(27.0)**	**F(86.2)**	**E(55.6)**	**C(27.8)**	**F(96.8)**	**E(56.8)**
ICU		**C(0.64)**	**E(0.90)**	**E(0.83)**	**C(0.65)**	**E(0.90)**	**E(0.83)**
NYS Route 31 at Target Driveway							
Eastbound	L	D(35.6)	D(46.3)	D(47.4)	D(35.6)	D(46.3)	D(47.7)
	T	A(8.8)	C(21.5)	C(23.9)	A(8.9)	C(21.7)	C(24.0)
	R	A(2.6)	A(3.2)	A(2.7)	A(2.6)	A(3.2)	A(2.7)
Westbound	L	D(51.9)	E(55.8)	E(58.3)	D(51.8)	E(55.2)	E(57.0)
	T	A(2.5)	F(95.3)	F(118)	A(2.5)	F(127)	F(133)
	R	A(0.3)	A(1.0)	A(0.9)	A(0.3)	A(0.9)	A(0.8)
Northbound	L	D(40.0)	E(63.5)	E(78.4)	D(40.0)	E(63.5)	E(78.4)
	TR	C(23.9)	D(52.6)	D(47.2)	C(23.9)	D(52.6)	D(47.2)
Southbound	L	D(37.1)	D(47.1)	D(50.7)	D(37.1)	D(47.1)	D(50.7)
	TR	C(21.5)	F(107)	F(109)	C(21.5)	F(107)	F(109)
Overall		**B(12.1)**	**E(58.9)**	**E(63.8)**	**B(12.1)**	**E(69.9)**	**E(68.1)**
ICU		**A(0.45)**	**G(1.03)**	**G(1.02)**	**A(0.46)**	**G(1.05)**	**G(1.03)**
NYS Route 31 at Dell Center Drive							
Eastbound	L	D(40.7)	D(49.2)	E(74.7)	D(40.5)	D(49.1)	E(74.6)
	TR	A(6.8)	A(7.3)	B(12.4)	A(7.0)	A(7.3)	B(12.4)
Westbound	L	D(46.5)	D(43.1)	D(52.9)	D(46.1)	D(43.2)	D(52.5)
	T	B(10.2)	B(13.2)	D(45.1)	B(10.3)	B(15.4)	D(54.8)
	R	A(5.7)	A(0.8)	A(1.4)	A(5.7)	A(1.0)	A(1.4)
Northbound	L	D(39.4)	D(49.2)	D(36.9)	D(39.4)	D(49.2)	D(36.9)
	TR	A(0.2)	C(28.1)	A(9.4)	A(0.2)	C(28.1)	A(9.4)
Southbound	L	C(34.7)	E(56.8)	E(76.7)	C(34.7)	E(56.8)	E(76.7)
	TR	C(21.1)	B(13.7)	B(11.1)	C(21.1)	B(13.7)	B(11.1)
Overall		**B(11.8)**	**B(14.0)**	**C(30.4)**	**B(11.8)**	**B(14.9)**	**C(34.1)**
ICU		**A(0.44)**	**D(0.76)**	**D(0.80)**	**A(0.45)**	**D(0.79)**	**D(0.82)**
NYS Route 31 at Carling Road							
Eastbound	L	D(53.9)	E(76.7)	E(67.6)	D(53.6)	E(76.4)	E(67.3)
	TR	A(4.0)	D(38.5)	C(26.8)	A(4.2)	D(38.9)	C(27.0)
Westbound	L	C(32.4)	D(52.4)	E(63.9)	C(32.2)	D(52.5)	E(63.4)
	T	B(11.6)	F(109)	E(74.6)	B(11.8)	F(142)	F(87.3)
	R	A(1.3)	A(0.1)	A(0.3)	A(1.3)	A(0.1)	A(0.3)
Northbound	L	D(38.7)	E(55.9)	E(59.6)	D(38.7)	E(55.9)	E(59.6)
	TR	A(0.4)	C(20.0)	D(43.7)	A(0.4)	C(20.0)	D(43.7)
Southbound	L	D(38.3)	D(52.9)	E(55.3)	D(38.3)	D(52.9)	E(55.3)
	TR	B(14.6)	D(36.0)	B(16.4)	B(14.6)	D(36.0)	B(16.5)
Overall		**A(9.4)**	**E(62.9)**	**D(46.6)**	**A(9.4)**	**E(75.4)**	**D(51.2)**
ICU		**A(0.43)**	**F(0.99)**	**F(0.95)**	**A(0.44)**	**G(1.01)**	**F(0.96)**
NYS Route 31 at Wegmans East							
Eastbound	L	D(47.6)	D(48.7)	D(47.9)	D(47.8)	D(48.8)	D(47.7)
	TR	A(1.2)	C(25.8)	C(24.2)	A(1.2)	C(26.3)	C(24.4)
Westbound	L	D(40.6)	D(49.1)	D(47.4)	D(40.8)	D(49.2)	D(47.6)
	T	A(3.9)	F(93.1)	C(26.4)	A(3.9)	F(120)	C(28.6)
	R	A(0.7)	A(1.0)	A(2.4)	A(0.7)	A(1.0)	A(2.3)
Northbound	L	A(0.0)	D(50.2)	D(54.6)	A(0.0)	D(50.2)	D(54.6)
	TR	A(0.2)	C(23.1)	C(23.7)	A(0.2)	C(23.1)	C(23.7)
Southbound	L	D(37.7)	D(45.4)	D(46.7)	D(37.7)	D(45.4)	D(46.7)
	TR	B(13.8)	B(12.3)	B(11.4)	B(13.8)	B(12.3)	B(11.4)
Overall		**A(5.2)**	**D(52.6)**	**C(25.8)**	**A(5.1)**	**E(64.2)**	**C(26.8)**
ICU		**A(0.40)**	**E(0.88)**	**D(0.78)**	**A(0.41)**	**E(0.90)**	**D(0.79)**

Clay Business Park
Level of Service Analysis
Summary

Intersection	Movement	2027 No Build AM	2027 No Build PM	2027 No Build Saturday	2027 Build AM	2027 Build PM	2027 Build Saturday
NYS Route 31 at Soule Road							
Eastbound	T	B(12.9)	F(186)	F(80.3)	B(13.7)	F(195)	F(84.8)
	R	B(13.0)	B(19.5)	A(8.1)	B(12.8)	B(19.5)	A(8.0)
Westbound	L	D(35.6)	D(46.2)	E(71.1)	D(36.0)	D(54.1)	E(73.7)
	T	A(4.1)	D(52.5)	B(15.8)	A(4.1)	E(76.7)	B(16.6)
Northbound	L	D(54.3)	F(172)	F(304)	D(54.3)	F(172)	F(304)
	R	B(17.6)	E(58.2)	F(90.4)	C(22.8)	E(61.5)	F(94.5)
Southbound	L	C(34.5)	C(32.6)	D(36.4)	D(38.2)	C(33.1)	D(36.9)
	T	D(39.0)	E(57.2)	D(44.8)	D(39.0)	E(57.2)	D(44.8)
	R	B(14.1)	F(143)	F(999)	B(14.1)	F(145)	F(999)
Overall		**B(18.6)**	**F(88.1)**	**F(184)**	**B(19.4)**	**F(98.9)**	**F(186)**
ICU		**C(0.66)**	**F(0.91)**	**E(0.86)**	**C(0.66)**	**F(0.94)**	**E(0.87)**
NYS Route 31 at SR 481 NB Ramps							
Eastbound	L	A(4.4)	D(42.0)	D(35.4)	A(4.5)	D(41.9)	D(35.3)
	T	A(2.9)	E(58.1)	A(8.3)	A(3.3)	E(70.0)	A(8.8)
Westbound	T	A(3.6)	F(190)	C(32.5)	A(3.7)	F(234)	D(38.0)
	R	A(0.6)	B(10.4)	A(3.9)	A(0.6)	A(9.9)	A(4.0)
Northbound	L	D(41.8)	E(65.7)	D(51.5)	D(41.8)	E(75.0)	D(51.5)
	LT	D(42.0)	E(65.7)	D(52.5)	D(42.0)	E(75.0)	D(52.5)
	R	A(8.1)	D(38.0)	D(51.2)	A(8.1)	D(38.0)	D(51.6)
Overall		**A(9.1)**	**F(90.0)**	**C(24.9)**	**A(9.0)**	**F(109)**	**C(27.1)**
ICU		**A(0.49)**	**F(0.96)**	**D(0.81)**	**A(0.49)**	**F(0.99)**	**E(0.82)**
NYS Route 31 at Market Fair Mall							
Eastbound	T	A(2.5)	E(64.8)	D(48.0)	A(2.6)	E(72.3)	D(54.1)
	R	A(0.1)	A(0.2)	A(0.3)	A(0.1)	A(0.2)	A(0.3)
Westbound	L	A(0.2)	B(15.4)	C(23.3)	A(0.2)	B(14.8)	C(23.1)
	T	A(0.3)	B(12.6)	B(14.1)	A(0.2)	B(16.3)	B(15.5)
Northbound	L	D(36.3)	D(54.7)	D(54.2)	D(36.3)	D(54.7)	D(54.2)
	R	B(10.0)	C(24.8)	C(21.7)	B(10.0)	C(24.8)	C(21.7)
Overall		**A(1.6)**	**D(36.8)**	**C(29.7)**	**A(1.6)**	**D(41.0)**	**C(32.8)**
ICU		**A(0.35)**	**E(0.83)**	**D(0.81)**	**A(0.37)**	**E(0.84)**	**D(0.81)**
NYS Route 31 at Great Northern West							
Eastbound	L	B(15.2)	C(28.8)	C(29.5)	B(14.8)	C(28.9)	C(29.5)
	TR	A(2.4)	A(1.4)	A(1.2)	A(2.8)	A(1.7)	A(1.2)
Westbound	L	B(17.5)	A(0.0)	C(30.0)	B(18.0)	A(0.0)	C(30.5)
	T	C(27.4)	F(226)	F(199)	C(28.9)	F(289)	F(227)
	R	A(5.0)	A(1.7)	A(2.6)	A(5.0)	A(1.6)	A(2.8)
Northbound	LTR	A(0.0)	D(44.0)	C(32.3)	A(0.0)	D(44.0)	C(32.3)
Southbound	LT	D(35.2)	D(48.8)	D(51.6)	D(35.2)	D(48.8)	D(51.6)
	R	A(9.0)	B(11.9)	B(12.2)	A(9.0)	B(11.9)	B(12.2)
Overall		**B(15.0)**	**F(84.3)**	**E(68.7)**	**B(15.4)**	**F(112)**	**E(78.5)**
ICU		**A(0.41)**	**D(0.75)**	**D(0.81)**	**A(0.41)**	**D(0.79)**	**E(0.82)**
NYS Route 31 at Great Northern East							
Eastbound	L	A(4.7)	B(11.2)	B(17.0)	A(5.0)	B(16.9)	C(20.9)
	TR	A(5.7)	A(7.3)	A(2.2)	A(6.4)	A(7.3)	A(2.2)
Westbound	L	B(10.4)	B(13.0)	B(11.8)	B(11.0)	B(13.6)	B(11.9)
	TR	A(8.6)	B(14.7)	B(15.7)	A(8.7)	B(17.0)	B(16.6)
Northbound	LT	D(41.1)	D(42.8)	F(101)	D(41.1)	D(42.8)	F(101)
	R	B(13.5)	B(19.8)	B(16.6)	B(13.5)	B(19.8)	B(16.6)
Southbound	LT	C(26.0)	D(53.6)	D(53.2)	C(26.0)	D(53.6)	D(53.2)
	R	B(13.4)	B(11.0)	B(12.6)	B(13.4)	B(11.0)	B(12.6)
Overall		**A(9.7)**	**B(12.8)**	**B(14.1)**	**A(9.9)**	**B(14.0)**	**B(14.6)**
ICU		**B(0.55)**	**D(0.79)**	**D(0.74)**	**B(0.58)**	**D(0.80)**	**D(0.75)**
NYS Route 31 at Morgan Road							
Eastbound	L	B(16.6)	F(124)	C(29.3)	B(16.4)	F(123)	C(30.0)
	T	C(32.4)	D(49.6)	D(41.1)	C(34.9)	F(81.3)	D(54.0)
	R	A(3.3)	A(3.0)	A(2.5)	A(4.7)	A(4.7)	A(2.8)
Westbound	L	C(22.4)	D(37.6)	C(21.9)	C(28.1)	F(80.9)	C(24.9)
	TR	C(26.4)	F(203)	F(97.1)	C(26.1)	F(281)	F(125)
Northbound	L	C(22.9)	F(172)	F(277)	C(24.1)	F(172)	F(274)
	T	C(29.1)	D(43.1)	D(37.0)	C(31.0)	D(43.7)	D(37.3)
	R	A(3.9)	A(5.3)	A(6.4)	A(4.3)	A(6.6)	A(6.8)
Southbound	L	B(18.1)	C(24.1)	B(19.2)	B(19.7)	C(24.9)	B(19.3)
	TR	F(113)	E(63.8)	D(44.7)	F(126)	E(63.8)	D(44.5)
Overall		**D(40.4)**	**F(102)**	**E(77.7)**	**D(42.5)**	**F(135)**	**F(87.2)**
ICU		**C(0.69)**	**H(1.09)**	**E(0.88)**	**C(0.73)**	**H(1.13)**	**E(0.90)**

Clay Business Park
Level of Service Analysis
Summary

Intersection	Movement	2027 No Build AM	2027 No Build PM	2027 No Build Saturday	2027 Build AM	2027 Build PM	2027 Build Saturday
NYS Route 31 at Henry Clay Blvd.							
Eastbound	LTR	C(25.1)	F(227)	F(158)	D(54.9)	F(285)	F(188)
Westbound	LTR	F(102)	F(437)	F(429)	F(208)	F(789)	F(675)
Northbound	LTR	C(33.7)	F(519)	F(96.5)	D(35.8)	F(525)	F(100)
Southbound	LTR	C(20.0)	C(34.9)	B(10.0)	C(20.7)	D(37.2)	B(10.1)
Overall		**D(51.2)**	**F(343)**	**F(233)**	**F(97.5)**	**F(498)**	**F(346)**
ICU		**H(1.15)**	**H(1.63)**	**H(1.35)**	**H(1.27)**	**H(1.96)**	**H(1.50)**
NYS Route 31 at US Route 11							
Eastbound	L	B(12.0)	E(73.5)	C(20.1)	B(13.4)	F(101)	C(20.5)
	TR	C(34.5)	F(132)	D(54.9)	D(38.5)	F(446)	F(126)
Westbound	L	D(51.4)	E(76.2)	E(78.2)	E(57.2)	E(76.1)	E(78.1)
	TR	A(6.1)	D(42.5)	C(23.8)	B(12.8)	E(57.0)	C(25.5)
Northbound	L	D(35.4)	D(37.6)	D(45.6)	D(48.6)	D(41.1)	D(50.2)
	T	E(61.5)	E(67.7)	E(56.7)	E(61.2)	E(67.7)	E(56.6)
	R	C(24.0)	C(28.4)	C(28.8)	C(24.0)	C(28.4)	C(28.8)
Southbound	L	D(40.7)	E(63.3)	D(43.0)	D(41.3)	E(63.3)	D(43.1)
	TR	D(37.3)	D(36.5)	D(38.4)	C(33.6)	D(36.2)	D(38.3)
Overall		**C(31.5)**	**E(66.9)**	**D(44.3)**	**C(33.1)**	**F(172)**	**E(64.2)**
ICU		**C(0.69)**	**F(0.97)**	**E(0.88)**	**C(0.72)**	**H(1.14)**	**F(0.95)**
NYS Route 31 at I-81 SB Ramps							
Eastbound	TR	F(197)	F(236)	D(46.1)	F(226)	F(453)	F(103)
Westbound	L	D(50.6)	B(13.8)	B(18.6)	E(72.9)	B(14.9)	B(16.0)
	T	A(6.6)	B(11.8)	A(4.3)	B(10.2)	B(16.5)	A(4.9)
Southbound	LT	E(61.8)	E(68.5)	D(49.5)	D(53.2)	E(68.5)	D(46.0)
	R	B(18.2)	C(33.8)	D(35.6)	F(83.4)	D(44.5)	D(45.3)
Overall		**F(97.4)**	**F(116)**	**C(28.4)**	**F(113)**	**F(236)**	**D(54.1)**
ICU		**F(0.94)**	**E(0.88)**	**D(0.75)**	**F(0.97)**	**G(1.03)**	**D(0.81)**
NYS Route 31 at I-81 NB Ramps							
Eastbound	L	B(10.2)	E(75.7)	D(50.0)	B(10.9)	F(125)	D(42.3)
	T	B(11.9)	F(92.2)	A(2.9)	B(15.6)	F(158)	A(3.0)
Westbound	TR	D(37.6)	F(279)	C(31.5)	D(41.0)	F(286)	D(37.7)
Northbound	L	D(37.4)	E(74.2)	C(33.5)	F(315)	F(248)	D(40.0)
	T	C(30.1)	C(26.0)	C(30.1)	C(29.8)	C(26.0)	C(29.4)
	R	D(47.4)	F(177)	C(31.9)	D(40.4)	F(204)	C(32.0)
Southbound	R	E(76.4)	D(39.9)	D(41.6)	E(66.7)	D(39.9)	D(39.5)
Overall		**C(33.7)**	**F(160)**	**C(26.8)**	**F(83.6)**	**F(204)**	**C(28.9)**
ICU		**B(0.64)**	**F(1.00)**	**D(0.73)**	**D(0.78)**	**G(1.08)**	**D(0.79)**
NYS Route 31 at Lakeshore Rd Spur							
Eastbound	TR	A(6.5)	A(5.3)	A(5.2)	A(6.5)	A(5.6)	A(5.3)
Westbound	L	A(4.4)	B(17.8)	A(6.0)	A(4.2)	B(18.9)	A(6.0)
	TR	A(7.8)	E(58.5)	A(8.5)	A(7.8)	E(62.0)	A(8.7)
Northbound	LTR	C(21.9)	E(75.5)	C(21.4)	C(21.9)	E(75.5)	C(21.4)
Southbound	LT	D(45.0)	C(34.8)	D(41.5)	D(45.0)	C(34.8)	D(41.5)
Overall		**B(11.2)**	**C(33.8)**	**A(8.6)**	**B(11.2)**	**C(34.5)**	**A(8.7)**
ICU		**A(0.50)**	**C(0.72)**	**B(0.60)**	**A(0.51)**	**C(0.73)**	**B(0.61)**
NYS Route 31 at New Country Plaza							
Eastbound	L	A(4.3)	A(2.0)	A(2.5)	A(4.8)	A(1.9)	A(2.5)
	TR	A(5.5)	A(8.9)	A(5.7)	A(5.5)	A(9.3)	A(5.6)
Westbound	L	A(4.2)	A(3.7)	A(3.1)	A(4.0)	A(4.0)	A(3.1)
	TR	B(16.9)	B(11.7)	A(8.5)	B(17.2)	B(12.2)	A(8.6)
Northbound	L	D(36.9)	D(42.1)	D(41.9)	D(36.9)	D(42.1)	D(41.9)
	TR	A(9.4)	B(10.5)	B(11.4)	A(9.4)	B(10.5)	B(11.4)
Southbound	LTR	D(37.2)	B(18.2)	B(17.3)	D(37.2)	B(18.2)	B(17.3)
Overall		**B(12.1)**	**B(11.0)**	**A(8.4)**	**B(12.2)**	**B(11.3)**	**A(8.4)**
ICU		**B(0.63)**	**B(0.63)**	**B(0.57)**	**B(0.65)**	**B(0.63)**	**B(0.57)**
NYS Route 31 at CNS High School							
Eastbound	T	C(32,7)	D(38.4)	A(9.3)	C(33.8)	E(62.0)	A(9.9)
	R	A(5.4)	A(0.8)	A(0.0)	A(5.5)	A(0.7)	A(0.0)
Westbound	L	C(23.0)	B(15.0)	A(2.3)	C(24.5)	B(15.0)	A(2.3)
	T	B(12.5)	A(9.0)	A(3.9)	B(13.5)	A(9.2)	A(4.0)
Northbound	L	C(32.2)	D(36.3)	D(35.3)	C(32.2)	D(36.3)	D(35.3)
	R	A(2.9)	B(11.0)	B(10.7)	A(2.9)	B(12.8)	B(10.7)
Overall		**B(17.9)**	**C(23.0)**	**A(7.0)**	**B(18.6)**	**C(34.1)**	**A(7.3)**
ICU		**B(0.55)**	**D(0.77)**	**C(0.63)**	**B(0.56)**	**D(0.81)**	**C(0.65)**

Clay Business Park
Level of Service Analysis
Summary

Intersection	Movement	2027 No Build AM	2027 No Build PM	2027 No Build Saturday	2027 Build AM	2027 Build PM	2027 Build Saturday
NYS Route 31 at Thompson Road							
Eastbound	L	A(3.8)	B(18.9)	C(25.7)	A(3.9)	B(19.5)	C(29.2)
	TR	B(11.2)	D(51.3)	E(70.4)	B(11.7)	E(80.0)	F(84.1)
Westbound	L	C(25.9)	F(482)	F(164)	C(28.4)	F(482)	F(164)
	TR	B(12.8)	C(22.1)	C(23.6)	B(13.5)	C(22.6)	C(24.4)
Northbound	LT	D(49.7)	F(153)	D(41.9)	D(49.7)	F(153)	D(41.9)
	R	B(12.3)	C(21.3)	A(8.0)	B(12.3)	C(21.3)	A(8.6)
Southbound	LTR	C(24.7)	F(83.4)	C(24.5)	C(24.7)	F(83.4)	C(24.5)
Overall		**B(18.5)**	**F(83.8)**	**D(48.0)**	**B(18.9)**	**F(92.3)**	**D(53.4)**
ICU		**D(0.76)**	**H(1.10)**	**G(1.04)**	**D(0.77)**	**H(1.15)**	**G(1.06)**
NYS Route 31 at Caughdenoy Road							
Eastbound	LT	A(0.6)	A(1.3)	A(0.9)			
Westbound	LT	A(1.2)	A(7.6)	D(27.1)			
Northbound	LTR	F(212)	F(999)	F(999)	**N/A**	**N/A**	**N/A**
Southbound	LTR	F(93.0)	F(999)	F(999)			
Overall		**F(47.7)**	F(999)	**F(999)**			
ICU		**A(0.56)**	H(1.61)	**H(1.57)**			
NYS Route 31 at Caughdenoy Road							
Eastbound	L				B(16.9)	F(91.6)	C(32.4)
	T				C(21.1)	F(114)	F(95.5)
	R				A(1.8)	A(3.4)	B(17.2)
Westbound	L				A(8.3)	D(51.3)	F(106)
	T				C(21.0)	F(105)	D(40.2)
	R	**N/A**	**N/A**	**N/A**	A(6.6)	A(3.2)	A(1.3)
Northbound	L				C(21.2)	F(114)	F(103)
	T				D(53.6)	F(216)	F(48.2)
	R				A(6.1)	F(143)	B(18.5)
Southbound	L				C(30.8)	F(166)	D(49.2)
	TR				B(19.3)	F(122)	F(113)
Overall					**B(18.0)**	**F(111)**	**E(59.9)**
Caughdenoy Road at Southern Drive							
Westbound	L	**N/A**	**N/A**	**N/A**	C(15.2)	F(374)	C(15.5)
Southbound	R				B(10.6)	A(10.0)	A(9.2)
	L				A(9.3)	A(8.3)	A(7.8)
Caughdenoy Road at Northern Drive							
Westbound	L	**N/A**	**N/A**	**N/A**	B(10.3)	C(20.5)	B(11.7)
Southbound	R				A(8.6)	A(9.4)	A(9.1)
	L				A(8.1)	A(7.9)	A(7.7)

Clay Business Park
Queuing Analysis
Summary

Intersection	Movement	Queue Storage	Existing AM	Existing PM	2014 No Build AM	2014 No Build PM	2014 Build AM	2014 Build PM
NYS Route 31 at Route 57								
Eastbound	L	275	17	74	17	76	17	76
	TR	N/A	199	274	220	341	221	342
Westbound	L	530	26	125	31	161	31	161
	TR	N/A	68	293	82	374	82	377
Northbound	L	500	35	57	36	59	36	59
	T	N/A	19	62	20	64	20	64
	R	480	41	177	53	240	53	240
Southbound	L	350	55	97	59	131	59	131
	TR	N/A	31	52	31	53	31	53
NYS Route 31 at Target Driveway								
Eastbound	L	340	47	127	48	130	48	130
	T	N/A	61	145	67	195	68	195
	R	200	0	0	0	0	0	0
Westbound	L	325	16	64	16	64	16	65
	T	908	7	248	7	403	7	492
	R	595	0	16	0	12	0	12
Northbound	L	250	10	33	10	33	10	33
	TR	250	2	36	2	36	2	36
Southbound	L	500	18	68	18	69	18	69
	TR	250	4	123	4	161	4	161
NYS Route 31 at Dell Center Drive								
Eastbound	L	350	22	44	23	45	23	45
	TR	908	59	82	63	92	64	92
Westbound	L	300	45	41	46	41	46	41
	T	1104	83	117	93	140	93	141
	R	300	0	0	1	0	1	0
Northbound	L	150	8	5	8	5	8	5
	TR	300	0	3	0	3	0	3
Southbound	L	200	15	59	16	59	16	59
	TR	200	4	5	4	5	4	5
NYS Route 31 at Carling Road								
Eastbound	L	550	34	147	35	152	35	152
	TR	1104	0	285	0	350	0	351
Westbound	L	250	7	105	7	107	7	107
	T	949	66	107	72	525	72	530
	R	240	3	0	3	0	3	0
Northbound	L	250	6	50	6	50	6	50
	TR	500	0	14	0	14	0	14
Southbound	L	250	9	71	10	72	10	72
	TR	250	2	40	2	50	2	50
NYS Route 31 at Wegmans East								
Eastbound	L	430	8	41	8	41	8	41
	TR	949	1	74	1	109	1	110
Westbound	L	300	11	93	11	96	11	96
	T	616	9	429	10	651	10	656
	R	375	0	7	0	5	0	5
Northbound	L	175	0	17	0	17	0	17
	TR	250	0	7	0	7	0	7
Southbound	L	100	30	117	31	119	31	119
	TR	100	2	9	2	9	2	9

Clay Business Park
Queuing Analysis
Summary

Intersection	Movement	Queue Storage	Existing AM	Existing PM	2014 No Build AM	2014 No Build PM	2014 Build AM	2014 Build PM
NYS Route 31 at Soule Road								
Eastbound	T	616	90	341	108	515	109	516
	R	616	170	90	82	84	184	84
Westbound	L	340	57	191	61	225	61	225
	T	698	17	400	19	460	19	462
Northbound	L	260	68	214	70	223	70	223
	R	700	0	84	8	142	10	142
Southbound	L	300	98	104	114	132	115	133
	T	900	21	59	22	61	22	61
	R	150	0	82	0	92	0	93
NYS Route 31 at SR 481 NB Ramps								
Eastbound	L	130	4	125	6	125	6	125
	T	698	9	172	14	282	15	284
Westbound	T	442	14	393	16	600	16	606
	R	330	0	66	0	71	0	71
Northbound	L	350	80	305	81	313	81	313
	LT	1200	80	305	82	313	82	313
	R	220	0	127	0	199	0	199
NYS Route 31 at Market Fair Mall								
Eastbound	T	442	84	133	72	241	72	237
	R	250	0	0	0	0	0	0
Westbound	L	150	0	24	0	26	0	26
	T	714	1	105	1	206	1	211
Northbound	L	125	3	69	3	70	3	70
	R	125	0	37	0	45	0	45
NYS Route 31 at Great Northern West								
Eastbound	L	330	9	104	10	131	10	131
	TR	714	0	18	0	24	0	24
Westbound	L	150	1	0	1	0	1	0
	T	907	148	333	186	610	186	617
	R	150	0	8	0	8	0	8
Northbound	LTR	100	0	2	0	2	0	2
Southbound	LT	175	4	33	4	33	4	33
	R	175	5	67	5	69	5	69
NYS Route 31 at Great Northern East								
Eastbound	L	300	2	11	2	11	2	11
	TR	907	31	95	37	123	37	123
Westbound	L	230	8	6	9	6	9	6
	TR	N/A	40	156	53	257	53	261
Northbound	LT	150	51	24	52	25	52	25
	R	150	9	9	9	9	9	9
Southbound	LT	200	2	59	2	59	2	59
	R	200	3	5	3	5	3	5
NYS Route 31 at Morgan Road								
Eastbound	L	270	19	150	20	163	20	163
	T	N/A	85	115	121	257	124	259
	R	270	0	0	0	0	0	0
Westbound	L	300	36	43	52	72	53	75
	TR	N/A	78	189	119	441	120	449
Northbound	L	560	25	157	30	176	30	176
	T	N/A	22	133	26	143	26	143
	R	200	0	0	0	0	0	0
Southbound	L	380	28	33	43	64	43	64
	TR	N/A	184	162	211	166	212	166

Clay Business Park
Queuing Analysis
Summary

Intersection	Movement	Queue Storage	Existing		2014 No Build		2014 Build	
			AM	PM	AM	PM		
NYS Route 31 at Henry Clay Blvd.								
Eastbound	TR	N/A	73	129	155	554	160	559
Westbound	TR	N/A	74	140	168	577	172	599
Northbound	LTR	N/A	51	231	74	455	74	456
Southbound	LTR	N/A	43	25	55	108	56	108
NYS Route 31 at US Route 11								
Eastbound	L	225	13	36	17	63	17	64
	TR	N/A	175	213	259	461	263	507
Westbound	L	500	66	247	140	308	145	308
	TR	716	59	225	67	416	78	422
Northbound	L	190	32	60	40	123	43	124
	T	N/A	96	249	98	293	98	293
	R	N/A	121	260	112	309	112	309
Southbound	L	325	61	95	63	117	63	117
	TR	N/A	53	83	55	110	55	110
NYS Route 31 at I-81 SB Ramps								
Eastbound	TR	716	413	469	528	725	534	754
Westbound	L	130	83	107	171	119	167	118
	T	355	27	186	68	280	70	280
Southbound	LT	1100	76	129	79	132	79	132
	R	100	0	0	0	41	0	44
NYS Route 31 at I-81 NB Ramps								
Eastbound	L	100	6	112	23	146	23	149
	T	355	20	133	90	171	90	173
Westbound	TR	990	280	484	337	693	339	693
Northbound	L	600	109	250	110	321	135	329
	T	1300	22	70	21	72	21	72
	R	110	103	491	141	557	142	558
Southbound	R	750	120	81	128	95	128	95
NYS Route 31 at Lakeshore Rd Spur								
Eastbound	TR	364	72	81	82	106	83	107
Westbound	L	200	1	10	1	10	1	10
	TR	875	50	438	52	564	52	565
Northbound	LTR	150	12	113	12	115	12	115
Southbound	LT	214	94	29	96	29	96	29
NYS Route 31 at New Country Plaza								
Eastbound	L	200	9	2	9	1	9	1
	TR	875	51	153	58	197	58	198
Westbound	L	275	1	6	1	6	1	6
	TR	644	124	187	232	235	229	235
Northbound	L	125	27	38	28	39	28	39
	TR	250	0	0	0	0	0	0
Southbound	LTR	100	53	6	56	6	56	6
NYS Route 31 at CNS High School								
Eastbound	T	644	215	305	271	446	272	451
	R	644	4	0	6	0	6	0
Westbound	L	180	44	14	65	14	65	14
	T	N/A	76	92	98	145	100	146
Northbound	L	300	97	71	99	72	99	72
	R	300	0	0	0	8	0	8

Clay Business Park
Queuing Analysis
Summary

Intersection	Movement	Queue Storage	Existing		2014 No Build		2014 Build	
			AM	PM	AM	PM	AM	PM
NYS Route 31 at Thompson Road								
Eastbound	L	40	4	19	5	26	5	26
	TR	N/A	30	307	34	481	34	488
Westbound	L	40	31	52	35	105	35	108
	TR	N/A	98	172	118	253	119	253
Northbound	LT	N/A	121	228	128	386	128	386
	R	40	21	73	24	96	24	96
Southbound	LTR	N/A	66	94	67	132	67	132
NYS Route 31 at Caughdenoy Road								
Eastbound	LTR	N/A	1	2	1	3		
Westbound	LTR	N/A	1	1	3	30		
Northbound	LTR	N/A	29	80	272	*		
Southbound	LTR	N/A	27	36	71	*		
NYS Route 31 at Caughdenoy Road								
Eastbound	L						5	12
	T						125	159
	R						0	26
Westbound	L						6	65
	T						72	238
	R		N/A	N/A			0	0
Northbound	L						50	223
	T						11	57
	R						0	94
Southbound	L						18	30
	TR						5	13
Caughdenoy Road at Southern Drive								
Westbound	L		N/A	N/A	N/A	N/A	1	4
Southbound	R						0	0
	L						0	0
Caughdenoy Road at Northern Drive								
Westbound	L		N/A	N/A	N/A	N/A	0	3
Southbound	R						0	0
	L						0	0

Clay Business Park
Queuing Analysis
Summary

Intersection	Movement	Queue Storage	2016 No Build		2016 Build	
			AM	PM	AM	PM
NYS Route 31 at Route 57						
Eastbound	L	275	19	77	19	77
	TR	N/A	226	351	228	353
Westbound	L	530	31	166	31	166
	TR	N/A	83	387	84	393
Northbound	L	500	36	60	36	60
	T	N/A	20	65	20	65
	R	480	58	246	58	246
Southbound	L	350	61	135	61	135
	TR	N/A	32	54	32	54
NYS Route 31 at Target Driveway						
Eastbound	L	340	49	132	49	132
	T	N/A	69	200	70	200
	R	200	0	0	0	0
Westbound	L	325	16	66	16	66
	T	908	7	506	7	515
	R	595	0	13	0	13
Northbound	L	250	10	35	10	35
	TR	250	2	39	2	39
Southbound	L	500	18	71	18	71
	TR	250	4	177	4	177
NYS Route 31 at Dell Center Drive						
Eastbound	L	350	23	46	23	46
	TR	908	65	94	65	94
Westbound	L	300	47	43	47	43
	T	1104	94	143	95	144
	R	300	1	0	1	0
Northbound	L	150	8	5	8	5
	TR	300	0	3	0	3
Southbound	L	200	17	61	17	61
	TR	200	4	5	4	5
NYS Route 31 at Carling Road						
Eastbound	L	550	35	155	35	155
	TR	1104	0	358	0	358
Westbound	L	250	7	109	7	109
	T	949	73	543	73	552
	R	240	3	0	3	0
Northbound	L	250	6	51	6	51
	TR	500	0	15	0	15
Southbound	L	250	10	73	10	73
	TR	250	2	50	2	50
NYS Route 31 at Wegmans East						
Eastbound	L	430	8	42	8	42
	TR	949	1	118	1	119
Westbound	L	300	12	99	12	99
	T	616	10	676	10	686
	R	375	0	6	0	5
Northbound	L	175	0	18	0	18
	TR	250	0	7	0	7
Southbound	L	100	31	122	31	122
	TR	100	2	9	2	9

Clay Business Park
Queuing Analysis
Summary

Intersection	Movement	Queue Storage	2016 No Build AM	2016 No Build PM	2016 Build AM	2016 Build PM
NYS Route 31 at Soule Road						
Eastbound	T	616	111	532	113	534
	R	616	74	86	73	86
Westbound	L	340	63	229	63	230
	T	698	19	468	19	471
Northbound	L	260	71	231	71	231
	R	700	12	146	14	146
Southbound	L	300	116	135	119	135
	T	900	22	62	22	62
	R	150	0	97	0	97
NYS Route 31 at SR 481 NB Ramps						
Eastbound	L	130	6	127	7	127
	T	698	16	296	17	300
Westbound	T	442	16	617	16	628
	R	330	0	70	0	70
Northbound	L	350	83	323	83	323
	LT	1200	83	324	83	324
	R	220	0	204	0	204
NYS Route 31 at Market Fair Mall						
Eastbound	T	442	64	277	72	275
	R	250	0	0	0	0
Westbound	L	150	0	27	0	27
	T	714	2	216	2	225
Northbound	L	125	3	72	3	72
	R	125	0	46	0	46
NYS Route 31 at Great Northern West						
Eastbound	L	330	10	136	10	136
	TR	714	0	24	0	24
Westbound	L	150	1	0	1	0
	T	907	190	625	191	637
	R	150	0	8	0	8
Northbound	LTR	100	0	2	0	2
Southbound	LT	175	4	34	4	34
	R	175	6	71	6	71
NYS Route 31 at Great Northern East						
Eastbound	L	300	2	110	2	11
	TR	907	40	123	45	123
Westbound	L	230	9	7	9	7
	TR	N/A	54	267	54	273
Northbound	LT	150	53	25	53	25
	R	150	9	9	9	9
Southbound	LT	200	2	61	2	61
	R	200	3	5	3	5
NYS Route 31 at Morgan Road						
Eastbound	L	270	20	178	20	179
	T	N/A	124	261	128	265
	R	270	0	0	0	0
Westbound	L	300	53	73	54	79
	TR	N/A	121	450	123	463
Northbound	L	560	30	185	31	186
	T	N/A	27	146	27	146
	R	200	0	0	0	0
Southbound	L	380	43	64	45	65
	TR	N/A	219	171	221	171

Clay Business Park
Queuing Analysis
Summary

Intersection	Movement	Queue Storage	2016 No Build		2016 Build	
			AM	PM		
NYS Route 31 at Henry Clay Blvd.						
Eastbound	TR	N/A	161	564	171	571
Westbound	TR	N/A	176	588	188	627
Northbound	LTR	N/A	75	465	76	466
Southbound	LTR	N/A	57	108	57	109
NYS Route 31 at US Route 11						
Eastbound	L	225	17	65	17	70
	TR	N/A	271	481	279	559
Westbound	L	500	158	320	166	320
	TR	716	65	431	88	442
Northbound	L	190	41	124	47	127
	T	N/A	100	302	100	302
	R	N/A	113	320	112	320
Southbound	L	325	64	119	64	119
	TR	N/A	56	114	57	114
NYS Route 31 at I-81 SB Ramps						
Eastbound	TR	716	547	747	556	801
Westbound	L	130	208	121	297	119
	T	355	82	281	86	283
Southbound	LT	1100	79	134	79	134
	R	100	0	47	0	50
NYS Route 31 at I-81 NB Ramps						
Eastbound	L	100	29	153	29	155
	T	355	114	179	117	184
Westbound	TR	990	359	712	362	712
Northbound	L	600	111	329	163	343
	T	1300	21	73	21	73
	R	110	152	583	154	585
Southbound	R	750	130	96	130	96
NYS Route 31 at Lakeshore Rd Spur						
Eastbound	TR	364	85	109	85	110
Westbound	L	200	1	11	1	11
	TR	875	52	573	53	574
Northbound	LTR	150	12	119	12	119
Southbound	LT	214	97	30	97	30
NYS Route 31 at New Country Plaza						
Eastbound	L	200	10	2	10	1
	TR	875	60	203	60	205
Westbound	L	275	1	6	1	6
	TR	644	250	239	254	239
Northbound	L	125	28	40	28	40
	TR	250	0	0	0	0
Southbound	LTR	100	56	6	56	6
NYS Route 31 at CNS High School						
Eastbound	T	644	280	461	281	471
	R	644	6	0	7	0
Westbound	L	180	70	14	71	14
	T	N/A	109	149	112	151
Northbound	L	300	102	73	102	73
	R	300	0	9	0	10

Clay Business Park
Queuing Analysis
Summary

Intersection	Movement	Queue Storage	2016 No Build AM	2016 No Build PM	2016 Build AM	2016 Build PM
NYS Route 31 at Thompson Road						
Eastbound	L	40	5	26	5	26
	TR	N/A	36	495	36	508
Westbound	L	40	37	115	38	120
	TR	N/A	124	257	127	260
Northbound	LT	N/A	131	399	131	399
	R	40	25	99	25	99
Southbound	LTR	N/A	69	135	69	135
NYS Route 31 at Caughdenoy Road						
Eastbound	LTR	N/A	1	3		
Westbound	LTR	N/A	3	30		
Northbound	LTR	N/A	288	*		
Southbound	LTR	N/A	77	*		
NYS Route 31 at Caughdenoy Road						
Eastbound	L				8	15
	T				128	185
	R				0	31
Westbound	L				6	74
	T				108	269
	R				0	0
Northbound	L				50	250
	T				13	68
	R				0	120
Southbound	L				21	53
	TR				5	16
Caughdenoy Road at Southern Drive						
Westbound	L		**N/A**	**N/A**	1	8
Southbound	R				0	0
	L				0	0
Caughdenoy Road at Northern Drive						
Westbound	L		**N/A**	**N/A**	1	6
Southbound	R				0	0
	L				0	0

Clay Business Park
Queuing Analysis
Summary

Intersection	Movement	Queue Storage	2018 No Build		2018 Build	
			AM	PM	AM	PM
NYS Route 31 at Route 57						
Eastbound	L	275	19	79	19	79
	TR	N/A	233	372	237	375
Westbound	L	530	32	172	32	172
	TR	N/A	85	400	86	423
Northbound	L	500	37	61	37	61
	T	N/A	21	66	21	66
	R	480	61	253	62	253
Southbound	L	350	62	139	62	139
	TR	N/A	32	55	32	55
NYS Route 31 at Target Driveway						
Eastbound	L	340	51	135	51	135
	T	N/A	71	205	72	205
	R	200	0	0	0	0
Westbound	L	325	16	67	16	66
	T	908	7	526	7	542
	R	595	0	13	0	12
Northbound	L	250	11	35	11	35
	TR	250	2	39	2	39
Southbound	L	500	18	72	19	72
	TR	250	4	191	4	191
NYS Route 31 at Dell Center Drive						
Eastbound	L	350	24	48	24	48
	TR	908	66	95	67	95
Westbound	L	300	48	43	47	43
	T	1104	97	150	97	153
	R	300	1	0	1	0
Northbound	L	150	8	5	8	5
	TR	300	0	3	0	3
Southbound	L	200	17	62	17	62
	TR	200	4	5	4	5
NYS Route 31 at Carling Road						
Eastbound	L	550	37	158	37	158
	TR	1104	0	364	0	365
Westbound	L	250	7	111	7	111
	T	949	74	562	75	577
	R	240	3	0	3	0
Northbound	L	250	6	53	6	53
	TR	500	0	15	0	15
Southbound	L	250	10	75	10	75
	TR	250	2	60	2	60
NYS Route 31 at Wegmans East						
Eastbound	L	430	9	44	9	44
	TR	949	1	129	1	130
Westbound	L	300	12	99	12	100
	T	616	11	705	11	721
	R	375	0	6	0	6
Northbound	L	175	0	18	0	18
	TR	250	0	8	0	8
Southbound	L	100	32	124	32	124
	TR	100	2	9	2	9

Clay Business Park
Queuing Analysis
Summary

Intersection	Movement	Queue Storage	2018 No Build AM	2018 No Build PM	2018 Build AM	2018 Build PM
NYS Route 31 at Soule Road						
Eastbound	T	616	114	551	117	555
	R	616	74	89	75	89
Westbound	L	340	65	234	65	235
	T	698	20	477	20	481
Northbound	L	260	73	239	73	239
	R	700	15	152	20	152
Southbound	L	300	118	137	122	138
	T	900	23	64	23	64
	R	150	0	100	0	100
NYS Route 31 at SR 481 NB Ramps						
Eastbound	L	130	7	130	8	130
	T	698	18	311	20	314
Westbound	T	442	16	633	16	653
	R	330	0	69	0	68
Northbound	L	350	84	332	84	332
	LT	1200	85	332	85	332
	R	220	0	209	0	210
NYS Route 31 at Market Fair Mall						
Eastbound	T	442	57	301	68	305
	R	250	0	0	0	0
Westbound	L	150	0	28	0	27
	T	714	2	227	2	241
Northbound	L	125	3	73	3	73
	R	125	0	46	0	47
NYS Route 31 at Great Northern West						
Eastbound	L	330	10	140	10	140
	TR	714	0	25	0	25
Westbound	L	150	1	0	1	0
	T	907	194	640	196	663
	R	150	0	8	0	8
Northbound	LTR	100	0	2	0	2
Southbound	LT	175	4	35	4	35
	R	175	6	72	6	72
NYS Route 31 at Great Northern East						
Eastbound	L	300	2	11	2	11
	TR	907	45	123	54	123
Westbound	L	230	9	7	9	7
	TR	N/A	56	274	56	285
Northbound	LT	150	54	25	54	25
	R	150	9	9	9	9
Southbound	LT	200	2	62	2	62
	R	200	3	5	3	5
NYS Route 31 at Morgan Road						
Eastbound	L	270	21	188	21	191
	T	N/A	126	265	134	274
	R	270	0	0	0	0
Westbound	L	300	54	74	57	84
	TR	N/A	123	460	127	482
Northbound	L	560	31	194	32	194
	T	N/A	27	150	28	150
	R	200	0	1	0	2
Southbound	L	380	45	66	48	66
	TR	N/A	235	177	252	177

Clay Business Park
Queuing Analysis
Summary

Intersection	Movement	Queue Storage	2018 No Build		2018 Build	
			AM	PM		
NYS Route 31 at Henry Clay Blvd.						
Eastbound	TR	N/A	170	572	189	586
Westbound	TR	N/A	189	599	247	665
Northbound	LTR	N/A	77	476	78	476
Southbound	LTR	N/A	58	110	59	111
NYS Route 31 at US Route 11						
Eastbound	L	225	18	68	18	80
	TR	N/A	280	502	296	636
Westbound	L	500	173	337	180	337
	TR	716	62	447	95	466
Northbound	L	190	41	127	51	129
	T	N/A	103	312	103	312
	R	N/A	113	332	113	332
Southbound	L	325	65	122	65	122
	TR	N/A	58	116	58	117
NYS Route 31 at I-81 SB Ramps						
Eastbound	TR	716	566	771	582	859
Westbound	L	130	249	123	239	121
	T	355	98	285	110	287
Southbound	LT	1100	81	136	81	136
	R	100	0	51	18	57
NYS Route 31 at I-81 NB Ramps						
Eastbound	L	100	35	158	42	167
	T	355	145	188	162	198
Westbound	TR	990	383	732	393	734
Northbound	L	600	112	337	201	361
	T	1300	21	75	21	75
	R	110	163	608	163	611
Southbound	R	750	133	98	133	98
NYS Route 31 at Lakeshore Rd Spur						
Eastbound	TR	364	89	112	90	114
Westbound	L	200	1	11	1	11
	TR	875	54	584	54	586
Northbound	LTR	150	12	122	12	122
Southbound	LT	214	99	31	99	31
NYS Route 31 at New Country Plaza						
Eastbound	L	200	10	1	10	1
	TR	875	64	208	64	212
Westbound	L	275	1	6	1	6
	TR	644	260	243	267	244
Northbound	L	125	29	40	29	40
	TR	250	0	0	0	0
Southbound	LTR	100	58	6	58	6
NYS Route 31 at CNS High School						
Eastbound	T	644	285	479	289	496
	R	644	8	0	7	0
Westbound	L	180	75	15	77	15
	T	N/A	117	155	123	156
Northbound	L	300	104	75	104	75
	R	300	0	11	0	13

Clay Business Park
Queuing Analysis
Summary

Intersection	Movement	Queue Storage	2018 No Build AM	2018 No Build PM	2018 Build AM	2018 Build PM
NYS Route 31 at Thompson Road						
Eastbound	L	40	5	27	5	27
	TR	N/A	38	511	38	535
Westbound	L	40	40	126	40	129
	TR	N/A	129	265	134	266
Northbound	LT	N/A	133	414	133	414
	R	40	27	102	27	102
Southbound	LTR	N/A	70	143	70	143
NYS Route 31 at Caughdenoy Road						
Eastbound	LTR	N/A	1	3		
Westbound	LTR	N/A	3	31		
Northbound	LTR	N/A	306	*		
Southbound	LTR	N/A	83	*		
NYS Route 31 at Caughdenoy Road						
Eastbound	L				10	15
	T				123	169
	R				0	36
Westbound	L				6	64
	T				107	244
	R				0	0
Northbound	L				41	229
	T				17	68
	R				0	133
Southbound	L				26	81
	TR				6	15
Caughdenoy Road at Southern Drive						
Westbound	L		N/A	N/A	3	16
Southbound	R				0	0
	L				0	0
Caughdenoy Road at Northern Drive						
Westbound	L		N/A	N/A	2	12
Southbound	R				0	1
	L				0	0

Clay Business Park
Queuing Analysis
Summary

Intersection	Movement	Queue Storage	2021 No Build AM	2021 No Build PM	2021 Build AM	2021 Build PM
NYS Route 31 at Route 57						
Eastbound	L	275	20	84	20	84
	TR	N/A	243	411	253	417
Westbound	L	530	32	181	32	181
	TR	N/A	87	457	90	482
Northbound	L	500	38	63	38	63
	T	N/A	21	68	21	68
	R	480	66	264	67	265
Southbound	L	350	63	145	63	145
	TR	N/A	33	57	33	57
NYS Route 31 at Target Driveway						
Eastbound	L	340	52	139	52	139
	T	N/A	74	212	77	214
	R	200	0	0	0	0
Westbound	L	325	17	69	17	69
	T	908	8	556	8	584
	R	595	0	13	0	13
Northbound	L	250	11	36	11	36
	TR	250	2	42	2	42
Southbound	L	500	19	74	19	74
	TR	250	4	214	4	215
NYS Route 31 at Dell Center Drive						
Eastbound	L	350	25	50	25	50
	TR	908	68	98	69	98
Westbound	L	300	49	45	49	45
	T	1104	100	164	101	180
	R	300	2	0	2	0
Northbound	L	150	9	5	9	5
	TR	300	0	3	0	3
Southbound	L	200	17	64	17	64
	TR	200	4	5	4	5
NYS Route 31 at Carling Road						
Eastbound	L	550	37	163	37	164
	TR	1104	0	374	0	376
Westbound	L	250	8	115	8	115
	T	949	76	590	77	617
	R	240	4	0	4	0
Northbound	L	250	6	55	6	55
	TR	500	0	16	0	16
Southbound	L	250	10	77	10	77
	TR	250	2	66	2	66
NYS Route 31 at Wegmans East						
Eastbound	L	430	9	45	9	44
	TR	949	1	144	1	146
Westbound	L	300	13	101	13	101
	T	616	11	757	11	783
	R	375	0	7	0	7
Northbound	L	175	0	19	0	19
	TR	250	0	8	0	8
Southbound	L	100	33	126	33	126
	TR	100	2	9	2	9

Clay Business Park
Queuing Analysis
Summary

Intersection	Movement	Queue Storage	2021 No Build AM	2021 No Build PM	2021 Build AM	2021 Build PM
NYS Route 31 at Soule Road						
Eastbound	T	616	117	579	124	585
	R	616	78	92	78	92
Westbound	L	340	68	241	68	243
	T	698	21	491	21	497
Northbound	L	260	74	251	74	251
	R	700	20	159	27	161
Southbound	L	300	122	141	129	144
	T	900	23	65	23	65
	R	150	0	112	0	113
NYS Route 31 at SR 481 NB Ramps						
Eastbound	L	130	8	136	9	135
	T	698	21	328	24	334
Westbound	T	442	17	659	17	694
	R	330	0	68	0	68
Northbound	L	350	87	348	87	348
	LT	1200	87	347	87	348
	R	220	0	217	0	217
NYS Route 31 at Market Fair Mall						
Eastbound	T	442	59	347	75	347
	R	250	0	0	0	0
Westbound	L	150	0	29	0	28
	T	714	2	243	2	269
Northbound	L	125	3	75	3	75
	R	125	0	49	0	49
NYS Route 31 at Great Northern West						
Eastbound	L	330	10	147	11	147
	TR	714	0	26	0	26
Westbound	L	150	1	0	1	0
	T	907	200	663	205	706
	R	150	0	8	0	8
Northbound	LTR	100	0	2	0	2
Southbound	LT	175	4	36	4	36
	R	175	6	75	6	75
NYS Route 31 at Great Northern East						
Eastbound	L	300	3	11	3	12
	TR	907	56	128	71	132
Westbound	L	230	10	7	10	7
	TR	N/A	58	288	60	310
Northbound	LT	150	55	25	55	25
	R	150	10	9	10	9
Southbound	LT	200	2	64	2	64
	R	200	3	5	3	5
NYS Route 31 at Morgan Road						
Eastbound	L	270	21	201	22	206
	T	N/A	131	272	145	289
	R	270	0	0	0	0
Westbound	L	300	56	76	60	96
	TR	N/A	128	475	132	517
Northbound	L	560	32	209	34	209
	T	N/A	29	155	30	155
	R	200	0	3	0	6
Southbound	L	380	47	66	53	68
	TR	N/A	265	185	277	185

Clay Business Park
Queuing Analysis
Summary

Intersection	Movement	Queue Storage	2021 No Build		2021 Build	
			AM	PM		
NYS Route 31 at Henry Clay Blvd.						
Eastbound	TR	N/A	181	589	221	613
Westbound	TR	N/A	245	615	285	737
Northbound	LTR	N/A	80	490	83	493
Southbound	LTR	N/A	60	112	61	113
NYS Route 31 at US Route 11						
Eastbound	L	225	18	78	19	97
	TR	N/A	296	529	324	778
Westbound	L	500	195	358	203	358
	TR	716	57	472	105	508
Northbound	L	190	43	129	60	135
	T	N/A	106	324	106	324
	R	N/A	115	351	115	351
Southbound	L	325	67	126	67	126
	TR	N/A	60	122	61	122
NYS Route 31 at I-81 SB Ramps						
Eastbound	TR	716	594	806	628	967
Westbound	L	130	289	125	284	121
	T	355	121	287	146	291
Southbound	LT	1100	84	139	84	139
	R	100	0	58	56	68
NYS Route 31 at I-81 NB Ramps						
Eastbound	L	100	51	168	66	186
	T	355	198	204	252	222
Westbound	TR	990	419	773	450	767
Northbound	L	600	112	350	269	395
	T	1300	22	77	21	77
	R	110	180	646	175	651
Southbound	R	750	137	101	137	101
NYS Route 31 at Lakeshore Rd Spur						
Eastbound	TR	364	94	116	95	121
Westbound	L	200	1	11	1	11
	TR	875	55	600	56	603
Northbound	LTR	150	12	124	12	124
Southbound	LT	214	102	32	102	32
NYS Route 31 at New Country Plaza						
Eastbound	L	200	11	1	11	1
	TR	875	67	215	68	224
Westbound	L	275	1	6	1	6
	TR	644	278	249	288	251
Northbound	L	125	30	42	30	42
	TR	250	0	0	0	0
Southbound	LTR	100	60	7	60	7
NYS Route 31 at CNS High School						
Eastbound	T	644	295	517	302	552
	R	644	97	0	97	0
Westbound	L	180	83	16	85	16
	T	N/A	131	172	141	173
Northbound	L	300	107	76	107	76
	R	300	0	14	0	16

Clay Business Park
Queuing Analysis
Summary

Intersection	Movement	Queue Storage	2021 No Build		2021 Build	
			AM	PM	AM	PM
NYS Route 31 at Thompson Road						
Eastbound	L	40	5	28	5	28
	TR	N/A	41	538	41	582
Westbound	L	40	43	135	44	135
	TR	N/A	138	275	145	278
Northbound	LT	N/A	136	436	136	436
	R	40	28	107	28	107
Southbound	LTR	N/A	71	154	71	154
NYS Route 31 at Caughdenoy Road						
Eastbound	LTR	N/A	1	3		
Westbound	LTR	N/A	3	31		
Northbound	LTR	N/A	329	*		
Southbound	LTR	N/A	93	*		
NYS Route 31 at Caughdenoy Road						
Eastbound	L				16	21
	T				127	201
	R				0	23
Westbound	L				6	74
	T				111	287
	R				0	0
Northbound	L				41	252
	T				23	85
	R				0	191
Southbound	L				35	173
	TR				6	**33**
Caughdenoy Road at Southern Drive						
Westbound	L		**N/A**	**N/A**	6	43
Southbound	R				0	1
	L				0	0
Caughdenoy Road at Northern Drive						
Westbound	L		**N/A**	**N/A**	4	25
Southbound	R				0	1
	L				1	0

Clay Business Park
Queuing Analysis
Summary

Intersection		Queue Storage	2024 No Build			2024 Build		
			AM	PM	Sat.	AM	PM	Sat.
NYS Route 31 at Route 57								
Eastbound	L	275	20	91	42	20	91	42
	TR	N/A	254	435	321	271	445	326
Westbound	L	530	34	190	197	34	190	197
	TR	N/A	91	485	352	94	531	365
Northbound	L	500	40	65	38	40	65	38
	T	N/A	22	70	43	22	70	43
	R	480	72	276	219	74	276	219
Southbound	L	350	66	153	113	66	153	113
	TR	N/A	34	59	50	34	59	50
NYS Route 31 at Target Driveway								
Eastbound	L	340	54	143	181	54	143	181
	T	N/A	77	220	194	81	224	196
	R	200	0	0	0	0	0	0
Westbound	L	325	18	72	103	18	72	102
	T	908	8	588	528	8	641	549
	R	595	0	14	0	0	13	0
Northbound	L	250	11	37	74	11	37	74
	TR	250	3	45	66	3	45	66
Southbound	L	500	20	76	103	20	76	103
	TR	250	4	236	234	4	238	234
NYS Route 31 at Dell Center Drive								
Eastbound	L	350	25	52	125	25	52	125
	TR	908	70	101	169	72	101	169
Westbound	L	300	51	47	45	51	47	45
	T	1104	103	184	628	105	212	648
	R	300	2	0	0	2	0	0
Northbound	L	150	9	6	31	9	6	31
	TR	300	0	3	7	0	3	7
Southbound	L	200	18	66	144	18	66	144
	TR	200	4	5	17	4	5	17
NYS Route 31 at Carling Road								
Eastbound	L	550	38	168	179	38	169	179
	TR	1104	0	384	249	0	387	252
Westbound	L	250	8	118	106	8	118	106
	T	949	78	621	575	80	668	597
	R	240	4	0	0	4	0	0
Northbound	L	250	7	56	48	7	56	48
	TR	500	0	16	52	0	16	52
Southbound	L	250	11	79	70	11	79	70
	TR	250	2	67	19	2	67	19
NYS Route 31 at Wegmans East								
Eastbound	L	430	9	46	45	9	47	45
	TR	949	1	158	201	1	162	201
Westbound	L	300	13	105	76	13	104	77
	T	616	12	798	531	12	847	552
	R	375	0	7	16	0	7	16
Northbound	L	175	0	20	23	0	20	23
	TR	250	0	8	6	0	8	6
Southbound	L	100	34	130	118	34	130	118
	TR	100	2	9	8	2	10	8

Clay Business Park
Queuing Analysis
Summary

Intersection		Queue Storage	2024 No Build			2024 Build		
			AM	PM	Sat.	AM	PM	Sat.
NYS Route 31 at Soule Road								
Eastbound	T	616	122	610	549	133	621	557
	R	616	80	9	59	80	96	59
Westbound	L	340	72	247	173	71	253	175
	T	698	21	503	245	22	540	255
Northbound	L	260	76	265	285	76	265	285
	R	700	26	167	146	37	171	148
Southbound	L	300	125	146	139	137	151	142
	T	900	24	67	24	24	67	24
	R	150	0	124	718	0	125	721
NYS Route 31 at SR 481 NB Ramps								
Eastbound	L	130	9	139	111	11	140	111
	T	698	24	347	162	30	356	164
Westbound	T	442	18	685	603	18	750	617
	R	330	0	68	19	0	68	19
Northbound	L	350	89	363	140	89	363	140
	LT	1200	90	364	144	90	364	144
	R	220	0	225	128	0	226	129
NYS Route 31 at Market Fair Mall								
Eastbound	T	442	63	404	329	87	488	333
	R	250	0	0	0	0	0	0
Westbound	L	150	0	29	43	0	29	43
	T	714	2	260	313	2	307	332
Northbound	L	125	3	78	117	3	78	117
	R	125	0	50	48	0	50	48
NYS Route 31 at Great Northern West								
Eastbound	L	330	11	154	179	11	154	181
	TR	714	0	27	20	0	27	20
Westbound	L	150	1	0	1	1	0	1
	T	907	207	687	553	214	765	583
	R	150	0	8	1	0	7	1
Northbound	LTR	100	0	2	3	0	2	3
Southbound	LT	175	5	36	68	5	36	68
	R	175	6	78	127	6	78	127
NYS Route 31 at Great Northern East								
Eastbound	L	300	3	13	9	4	13	9
	TR	907	68	141	34	95	145	34
Westbound	L	230	10	8	8	10	8	8
	TR	N/A	61	303	255	63	344	270
Northbound	LT	150	57	26	45	57	26	45
	R	150	10	11	8	10	11	8
Southbound	LT	200	3	66	66	3	66	66
	R	200	3	6	16	3	6	16
NYS Route 31 at Morgan Road								
Eastbound	L	270	22	217	71	23	218	71
	T	N/A	135	280	280	161	320	293
	R	270	0	0	0	4	6	0
Westbound	L	300	57	78	30	64	122	41
	TR	N/A	132	489	357	140	567	386
Northbound	L	560	34	226	322	36	227	319
	T	N/A	30	162	173	32	162	173
	R	200	0	6	19	0	12	24
Southbound	L	380	48	68	25	59	72	27
	TR	N/A	286	193	140	306	193	139

Clay Business Park
Queuing Analysis
Summary

Intersection		Queue Storage	2024 No Build			2024 Build		
			AM	PM	Sat.	AM	PM	Sat.
NYS Route 31 at Henry Clay Blvd.								
Eastbound	TR	N/A	196	604	452	269	648	479
Westbound	TR	N/A	267	636	547	330	848	647
Northbound	LTR	N/A	83	507	272	88	511	275
Southbound	LTR	N/A	62	113	15	65	116	15
NYS Route 31 at US Route 11								
Eastbound	L	225	19	87	37	20	110	39
	TR	N/A	312	556	340	357	1013	478
Westbound	L	500	216	381	334	240	381	335
	TR	716	52	497	216	145	568	246
Northbound	L	190	44	133	131	73	143	138
	T	N/A	109	337	218	109	337	218
	R	N/A	117	367	332	117	367	332
Southbound	L	325	70	134	88	70	133	88
	TR	N/A	62	126	98	62	126	99
NYS Route 31 at I-81 SB Ramps								
Eastbound	TR	716	624	842	400	668	1134	540
Westbound	L	130	369	126	90	315	121	70
	T	355	137	290	77	174	299	111
Southbound	LT	1100	87	144	95	85	144	93
	R	100	6	65	69	109	83	85
NYS Route 31 at I-81 NB Ramps								
Eastbound	L	100	64	180	149	70	216	153
	T	355	254	223	41	265	260	42
Westbound	TR	990	458	794	382	477	802	391
Northbound	L	600	112	363	92	463	460	129
	T	1300	22	80	62	21	80	61
	R	110	195	687	108	198	694	112
Southbound	R	750	141	104	94	141	104	92
NYS Route 31 at Lakeshore Rd Spur								
Eastbound	TR	364	100	121	111	102	131	117
Westbound	L	200	1	12	0	1	12	0
	TR	875	57	616	167	57	625	168
Northbound	LTR	150	13	131	4	13	131	4
Southbound	LT	214	106	33	51	106	33	51
NYS Route 31 at New Country Plaza								
Eastbound	L	200	11	2	1	11	1	1
	TR	875	71	224	111	72	240	109
Westbound	L	275	1	7	4	1	7	4
	TR	644	295	256	136	312	258	139
Northbound	L	125	30	43	43	30	43	43
	TR	250	0	0	0	0	0	0
Southbound	LTR	100	62	7	2	62	7	2
NYS Route 31 at CNS High School								
Eastbound	T	644	309	546	178	321	637	189
	R	644	106	0	0	108	0	0
Westbound	L	180	90	17	1	94	17	1
	T	N/A	145	180	129	164	184	132
Northbound	L	300	111	78	7	111	78	7
	R	300	0	17	0	0	20	0

Clay Business Park
Queuing Analysis
Summary

Intersection		Queue Storage	2024 No Build			2024 Build		
			AM	PM	Sat.	AM	PM	Sat.
NYS Route 31 at Thompson Road								
Eastbound	L	40	6	29	21	14	29	21
	TR	N/A	400	563	815	1580	711	854
Westbound	L	40	48	141	53	88	141	53
	TR	N/A	147	285	443	162	292	452
Northbound	LT	N/A	140	460	303	140	460	303
	R	40	30	112	35	69	112	30
Southbound	LTR	N/A	72	164	256	72	164	256
NYS Route 31 at Caughdenoy Road								
Eastbound	LTR	N/A	2	3	2			
Westbound	LTR	N/A	3	32	172			
Northbound	LTR	N/A	360	*	*			
Southbound	LTR	N/A	105	*	*			
NYS Route 31 at Caughdenoy Road								
Eastbound	L					29	42	28
	T					140	301	307
	R					0	8	192
Westbound	L					6	111	375
	T					122	416	360
	R					7	4	0
Northbound	L					40	359	441
	T					33	133	56
	R					0	337	108
Southbound	L					44	561	143
	TR					6	246	124
Caughdenoy Road at Southern Drive								
Westbound	L		N/A	N/A		12	240	22
Southbound	R					12	2	2
	L					1	0	0
Caughdenoy Road at Northern Drive								
Westbound	L		N/A	N/A		7	62	15
Southbound	R					0	2	1
	L					1	0	0

Clay Business Park
Queuing Analysis
Summary

Intersection		Queue Storage	2027 No Build			2027 Build		
			AM	PM	Sat.	AM	PM	Sat.
NYS Route 31 at Route 57								
Eastbound	L	275	21	96	44	21	96	44
	TR	N/A	266	461	336	289	475	343
Westbound	L	530	35	199	206	35	199	206
	TR	N/A	94	513	370	98	578	390
Northbound	L	500	41	68	40	41	68	40
	T	N/A	22	72	44	22	72	44
	R	480	77	288	230	79	288	230
Southbound	L	350	68	160	119	68	160	119
	TR	N/A	36	61	52	36	61	52
NYS Route 31 at Target Driveway								
Eastbound	L	340	55	147	187	55	147	187
	T	N/A	80	229	202	86	234	205
	R	200	0	0	0	0	0	0
Westbound	L	325	18	75	106	18	75	106
	T	908	8	622	561	8	697	588
	R	595	0	15	0	0	14	0
Northbound	L	250	11	38	76	11	38	76
	TR	250	3	48	71	3	48	71
Southbound	L	500	21	78	107	21	78	107
	TR	250	4	263	250	4	263	251
NYS Route 31 at Dell Center Drive								
Eastbound	L	350	26	54	128	26	54	128
	TR	908	72	103	176	76	104	176
Westbound	L	300	52	47	47	53	47	46
	T	1104	106	205	671	109	247	701
	R	300	2	0	0	3	0	0
Northbound	L	150	9	6	32	9	6	32
	TR	300	0	3	7	0	3	7
Southbound	L	200	19	68	146	19	68	146
	TR	200	4	5	21	4	5	21
NYS Route 31 at Carling Road								
Eastbound	L	550	40	174	185	40	173	185
	TR	1104	0	394	256	0	400	260
Westbound	L	250	8	122	110	8	121	109
	T	949	81	649	611	83	721	643
	R	240	4	0	0	4	0	0
Northbound	L	250	7	58	49	7	58	49
	TR	500	0	16	57	0	16	57
Southbound	L	250	11	82	72	11	82	72
	TR	250	2	81	19	2	81	19
NYS Route 31 at Wegmans East								
Eastbound	L	430	9	47	48	9	47	48
	TR	949	1	174	208	1	179	208
Westbound	L	300	13	107	80	13	107	80
	T	616	12	839	601	12	913	659
	R	375	0	8	18	0	8	17
Northbound	L	175	0	21	23	0	21	23
	TR	250	0	8	6	0	8	6
Southbound	L	100	35	134	121	35	134	121
	TR	100	2	10	8	2	10	8

Clay Business Park
Queuing Analysis
Summary

Intersection		Queue Storage	2027 No Build AM	2027 No Build PM	2027 No Build Sat.	2027 Build AM	2027 Build PM	2027 Build Sat.
NYS Route 31 at Soule Road								
Eastbound	T	616	126	639	581	142	656	593
	R	616	86	101	66	84	100	64
Westbound	L	340	75	255	178	76	269	181
	T	698	25	535	274	26	779	288
Northbound	L	260	78	279	299	78	279	299
	R	700	31	175	159	46	181	171
Southbound	L	300	129	150	143	145	158	148
	T	900	25	69	25	25	69	25
	R	150	0	134	749	0	136	752
NYS Route 31 at SR 481 NB Ramps								
Eastbound	L	130	11	144	115	12	144	115
	T	698	26	365	167	34	391	171
Westbound	T	442	18	714	625	18	805	647
	R	330	0	68	18	0	68	19
Northbound	L	350	92	381	144	92	381	144
	LT	1200	93	381	147	93	381	147
	R	220	0	235	134	0	235	134
NYS Route 31 at Market Fair Mall								
Eastbound	T	442	63	759	339	92	785	345
	R	250	0	0	0	0	0	0
Westbound	L	150	0	30	45	0	30	45
	T	714	2	277	332	2	346	360
Northbound	L	125	3	80	122	3	80	122
	R	125	0	52	49	0	52	49
NYS Route 31 at Great Northern West								
Eastbound	L	330	11	160	190	11	159	192
	TR	714	0	27	20	0	28	20
Westbound	L	150	1	0	1	1	0	1
	T	907	214	713	576	223	825	618
	R	150	0	7	1	0	7	1
Northbound	LTR	100	0	2	3	0	2	3
Southbound	LT	175	5	38	71	5	38	71
	R	175	6	80	132	6	80	132
NYS Route 31 at Great Northern East								
Eastbound	L	300	3	13	9	4	13	16
	TR	907	80	146	35	116	153	35
Westbound	L	230	11	8	9	11	8	9
	TR	N/A	64	318	270	67	385	293
Northbound	LT	150	59	27	47	59	27	47
	R	150	10	11	8	10	11	8
Southbound	LT	200	3	68	68	3	68	68
	R	200	3	6	16	3	6	16
NYS Route 31 at Morgan Road								
Eastbound	L	270	23	233	73	23	231	73
	T	N/A	139	287	289	175	338	309
	R	270	1	0	0	12	16	0
Westbound	L	300	58	79	31	68	160	47
	TR	N/A	136	505	372	146	616	417
Northbound	L	560	35	241	348	39	243	345
	T	N/A	31	167	181	34	169	181
	R	200	0	9	24	2	16	30
Southbound	L	380	50	69	26	66	75	28
	TR	N/A	308	201	147	337	201	147

Clay Business Park
Queuing Analysis
Summary

Intersection		Queue Storage	2027 No Build AM	2027 No Build PM	2027 No Build Sat.	2027 Build AM	2027 Build PM	2027 Build Sat.
NYS Route 31 at Henry Clay Blvd.								
Eastbound	TR	N/A	213	620	467	382	683	506
Westbound	TR	N/A	290	654	562	375	958	705
Northbound	LTR	N/A	87	523	286	93	529	290
Southbound	LTR	N/A	64	114	15	67	118	16
NYS Route 31 at US Route 11								
Eastbound	L	225	19	98	39	20	123	42
	TR	N/A	329	587	353	392	1253	570
Westbound	L	500	233	409	377	254	409	377
	TR	716	53	524	226	181	633	271
Northbound	L	190	45	135	134	85	151	144
	T	N/A	112	350	227	112	350	227
	R	N/A	119	385	348	119	385	348
Southbound	L	325	71	145	92	71	143	92
	TR	N/A	65	132	101	63	132	103
NYS Route 31 at I-81 SB Ramps								
Eastbound	TR	716	655	880	468	690	1300	633
Westbound	L	130	415	127	72	405	122	91
	T	355	139	288	101	188	318	138
Southbound	LT	1100	89	148	97	87	148	93
	R	100	19	71	78	175	98	99
NYS Route 31 at I-81 NB Ramps								
Eastbound	L	100	70	193	149	74	325	159
	T	355	272	244	42	273	303	44
Westbound	TR	990	485	827	405	507	838	466
Northbound	L	600	115	376	93	663	556	145
	T	1300	22	83	63	22	83	62
	R	110	215	726	119	220	737	125
Southbound	R	750	146	107	95	146	107	92
NYS Route 31 at Lakeshore Rd Spur								
Eastbound	TR	364	106	126	116	108	140	127
Westbound	L	200	1	13	0	1	13	0
	TR	875	60	645	173	60	664	175
Northbound	LTR	150	13	137	4	13	137	4
Southbound	LT	214	108	34	53	108	34	53
NYS Route 31 at New Country Plaza								
Eastbound	L	200	11	2	2	11	1	1
	TR	875	75	233	111	77	257	105
Westbound	L	275	1	7	4	1	7	4
	TR	644	312	263	143	334	267	146
Northbound	L	125	32	45	45	32	45	45
	TR	250	0	0	0	0	0	0
Southbound	LTR	100	65	7	2	65	7	2
NYS Route 31 at CNS High School								
Eastbound	T	644	325	577	189	339	736	338
	R	644	124	0	0	126	0	0
Westbound	L	180	97	18	1	101	18	1
	T	N/A	163	189	136	188	195	139
Northbound	L	300	115	81	7	115	81	7
	R	300	0	19	0	0	23	0

Clay Business Park
Queuing Analysis
Summary

Intersection		Queue Storage	2027 No Build AM	2027 No Build PM	2027 No Build Sat.	2027 Build AM	2027 Build PM	2027 Build Sat.
NYS Route 31 at Thompson Road								
Eastbound	L	40	6	30	18	6	30	18
	TR	N/A	421	594	452	435	785	482
Westbound	L	40	54	98	68	55	98	68
	TR	N/A	158	294	243	177	306	249
Northbound	LT	N/A	143	482	135	143	482	135
	R	40	32	118	21	32	118	23
Southbound	LTR	N/A	75	179	83	75	179	83
NYS Route 31 at Caughdenoy Road								
Eastbound	LTR	N/A	2	4	2			
Westbound	LTR	N/A	3	33	179			
Northbound	LTR	N/A	392	*	*			
Southbound	LTR	N/A	120	*	*			
NYS Route 31 at Caughdenoy Road								
Eastbound	L					41	57	38
	T					151	355	336
	R					0	0	178
Westbound	L					7	122	374
	T					130	506	383
	R					53	25	0
Northbound	L					39	427	456
	T					42	182	65
	R					0	450	119
Southbound	L					52	969	200
	TR					6	460	160
Caughdenoy Road at Southern Drive								
Westbound	L		N/A	N/A		19	871	45
Southbound	R					0	2	1
	L					1	0	0
Caughdenoy Road at Northern Drive								
Westbound	L		N/A	N/A		9	139	26
Southbound	R					0	3	1
	L					1	1	0

Clay Business Park
Queuing Analysis
Summary

WETLAND DELINEATION REPORT
FOR THE
ONONDAGA COUNTY
INDUSTRIAL DEVELOPMENT AGENCY
SEWER LINE PROJECT

TOWN OF CLAY
ONONDAGA COUNTY, NEW YORK

Prepared for:

CHA
441 South Salina Street
Syracuse, New York 13202-4712

Prepared by:

TERRESTRIAL ENVIRONMENTAL SPECIALISTS, INC.
23 County Route 6, Suite A
Phoenix, New York 13135

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1.0 INTRODUCTION

Terrestrial Environmental Specialists, Inc. (TES) performed a wetland investigation for the Onondaga County Industrial Development Agency (OCIDA) proposed sanitary sewer line route in the Town of Clay, Onondaga County, New York. The proposed sewer line begins south of the Oak Orchard Waste Water Treatment Plant, east along the Metropolitan Water Board right-of-way or ROW (located south of NYS Route 31), north along Caughdenoy Road and ends just south of Ver Plank Road at the Conrail railroad tracks (Figure 1).

The TES wetland investigation consisted of a review of available background information and a field delineation of wetlands and other regulated waters on the proposed sewer line route ROW. This report addresses the results of the background information review and the wetland delineation. A variety of figures are included with this report, along with photographs and field data sheets.

2.0 BACKGROUND INFORMATION REVIEW

Prior to the field investigation for wetlands, TES assembled and reviewed available background information. This information included:

- the New York State Department of Transportation (NYS DOT) Topographic Map (Brewerton Quadrangle) (Figure 1);
- the New York State Department of Environmental Conservation (NYSDEC) New York State (NYS) Freshwater Wetlands Map (Figure 2);
- the U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) Map (Figure 3);
- the Onondaga County Soil Survey Map prepared by the United States Department of Agriculture Natural Resources Conservation Service (USDA NRCS) (Figure 4);
- the New York State Surface Water Classification Map (Figure 5);
- the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (Figure 6); and
- a 2009 aerial photograph obtained from the New York State Geographic Information Systems (GIS) Clearinghouse (Figure 7).

All figures are provided after the text.

3.0 METHODS

The agency resource information maps, soils descriptions, and the aerial photograph discussed above were used during the field review. These maps and this information assisted in the initial identification of potential wetland areas and other regulated waters within the ROW.

A preliminary field review for wetlands was conducted by TES on May 17, 2012. Flagging of the wetlands and data collection was performed by TES on September 27, 28, and October 1, 2012. The wetland boundaries were identified and delineated using the state and federal criteria for vegetation, soils, and hydrology (NYSDEC and APA 1995, Environmental Laboratory. 1987, U.S. Army Corps of Engineers 2012, Lichvar 2012, and USDA NRCS 2010).

Surveyor's ribbons were placed along the wetland boundaries based on observations of vegetation, soils, and hydrology conditions. These observations were made along transects located perpendicular to the wetland boundaries. Additional observations of vegetation, soils, and hydrology were made at intermediate locations between the transects for the placement of additional flagging. Each wetland flag was labeled with a letter identifier of the wetland and was numbered consecutively *(e.g.,* A-1, A-2, A-3, *etc*.). The flagged wetland boundaries were surveyed by CHA.

To further support the wetland boundaries, data on vegetation, soils, and hydrology were collected from sample plots along transects located perpendicular to the wetland boundaries. TES sampled thirty-seven (37) plots in and around the wetlands and in other representative areas. Plots were generally located on the wetland and upland sides of the flagged wetland boundaries. The plot data were recorded on data sheets similar to those used in the regional supplement (U.S. Army Corps of Engineers 2012).

Vegetation data were collected in all the sample plots. Ocular estimates of the percent areal cover by plant species for each vegetation layer (tree, shrub, and herbaceous layers) were recorded. The sample plots varied in size by vegetation layer being sampled. The sizes were: 30-foot radius for the tree, 15-foot radius for the shrub, and 5-foot radius for the herbaceous layer.

The presence of wetland vegetation was determined when more than 50 percent of the dominant species in a sample plot had an indicator status of obligate (OBL), facultative-wet (FACW), or facultative (FAC). The dominant species for each layer in a plot were determined by ranking the species in decreasing order of percent cover and recording those species which, when cumulatively totaled, immediately exceeded 50 percent of the total cover of that layer. Additionally, any plant species that comprised 20 percent or more of the total cover for each layer was considered to be a dominant species.

Plant species were primarily identified using the *Manual of Vascular Plants of Northeastern United States and Adjacent Canada* (Gleason and Cronquist 1991), *New Britton and Brown Illustrated Flora* (Gleason 1952), and *Gray's Manual of Botany* (Fernald 1950). Scientific nomenclature follows the *National Wetland Plant List* (Lichvar 2012) and *A Checklist of New York State Plants* (Mitchell and Tucker 1997). The indicator status for each plant species was determined using *National Wetland Plant List* (Lichvar 2012).

Soil and hydrology data were collected in soil pits or soil borer holes to a minimum depth of 12 inches within each sample plot. Soil characteristics were noted along the soil profile at the depth specified by the Corps criteria (U.S. Army Corps of Engineers 2012). Procedures for identifying hydric soils as outlined in the *Field Indicators of Hydric Soils in the United States* (USDA NRCS 2010) were followed. Soil colors were determined using the Munsell color chart. Primary and secondary indicators of hydrology were also noted at each sample plot. The wetland boundaries were refined on the basis of intermediate soil borer holes along each transect.

4.0 RESULTS

The following section of the report provides an overall description of the ROW and a description of the wetlands identified and delineated by TES.

4.1 Sewer Line Right-of-Way Description

The NYSDOT Topographic Map shows that the ROW is located in the Town of Clay, Onondaga County, New York (Figure 1). The ROW begins south of the Oak Orchard Waste Water Treatment Plant, east along the Metropolitan Water Board right-of-way or ROW (located south of NYS Route 31), north along Caughdenoy Road and ends just south of Ver Plank Road at the Conrail railroad tracks.

The NYSDEC New York State Freshwater Wetlands Map shows one state-regulated wetland within the ROW (Figure 2). This wetland (BRE-17) is a Class I wetland according to the NYSDEC wetland ranking system. This is the highest value in the state's wetland rating system (Class I is the highest ranked and Class IV is the lowest ranked). Wetland BRE-17 is associated with Mud Creek.

According to the National Wetlands Inventory Map (Figure 3), four wetland types occur on or near the ROW. These types are designated by the USFWS as palustrine, forested, broad-leaved deciduous/scrub-shrub, broad-leaved deciduous, seasonally flooded/saturated (PFO1/SS1E); palustrine, forested, broad-leaved deciduous, temporarily flooded (PFO1A); palustrine, scrub-shrub, broad-leaved deciduous, seasonally flooded/saturated (PSS1E), and palustrine, unconsolidated bottom, permanently flooded, excavated (PUBHx).

The Soil Survey Map prepared by the Natural Resources Conservation Service shows a variety of mapped soil types within the ROW (Figure 4). Soil data for the ROW were also obtained from the USDA NRCS Web Soil Survey (WSS). Information from these sources indicated that seventeen different soils occur within the ROW.

Table 1.
Mapped Soils Occurring Within the OCIDA Sewer Line Route Right-of-Way

Soil Map Unit Symbol	Soil Map Unit Name	Drainage Class
ArB	Arkport very fine sandy loam, 2 to 6 % slopes	well drained
ChA	Collamer silt loam, 0 to 2 % slopes	moderately well drained
ChB	Collamer silt loam, 2 to 6 % slopes	moderately well drained
ClB	Colonie loamy fine sand, 0 to 6 % slopes	somewhat excessively drained
DuC	Dunkirk silt loam, rolling	well drained
FL	Fluvaquents, frequently flooded	poorly drained
HlA	Hilton loam, 0 to 3 % slopes	moderately well drained
HlB	Hilton loam, 3 to 8 % slopes	moderately well drained

Table 1. (cont.)

Soil Map Unit Symbol	Soil Map Unit Name	Drainage Class
MdB	Madrid fine sandy loam, 2 to 8 % slopes	well drained
MtA	Minoa fine sandy loam, 0 to 2 % slopes	somewhat poorly drained
NgA	Niagara silt loam, 0 to 4 % slopes	somewhat poorly drained
OgB	Ontario loam, 2 to 8 % slopes	well drained
OnC	Ontario gravelly loam, 8 to 15 % slopes	well drained
Wn	Wayland silt loam	poorly drained
WwA	Williamson silt loam, 0 to 2 % slopes	moderately well drained
WwB	Williamson silt loam, 2 to 6 % slopes	moderately well drained
WwC	Williamson silt loam, rolling	moderately well drained

Fluvaquents, Minoa fine sandy loam, Niagara silt loam, and Wayland silt loam have a major component of hydric soils (drainage classes range from somewhat poorly drained to poorly drained). The remaining soil units have no hydric components and are somewhat excessively drained to moderately well drained soils (Figure 4).

The Surface Water Classification Map shows several mapped streams within the ROW (Figure 5). They include two tributaries of Mud Creek, Shaver Creek, and a tributary of Shaver Creek. All of these streams have a water quality Class and Standard of C. To be state-protected, a waterbody has to have a Class of C or higher and a Standard of CT (trout) or higher.

There are areas of the 100-year floodplain shown on the FEMA Flood Insurance Rate Map (Figure 6). These floodplains are associated with Mud Creek.

The 2009 aerial photograph (Figures 7-1 to 7-7) shows that within the ROW there is a mixture of undeveloped land, agricultural land, and residential land.

The drainage basin for the ROW is approximately 1,228 acres (Figure 8). Several Relatively Permanent Waterbodies (RPW's) occur within the ROW. They include two tributaries of Mud Creek, Shaver Creek, and a tributary of Shaver Creek. These RPW's all flow into the Oneida River, a Traditional Navigable Waterbody (TNW), which is located approximately 3,000 feet northwest of the ROW (Figure 9).

4.2 Sewer Line Right-of-Way Ecology

The ROW consisted of open fields, scrub-shrub uplands, deciduous forest uplands, and wetlands. All cover types were found throughout the ROW. Open fields were dominated by herbaceous plant species. Herbaceous species that dominated this cover type included broad leaf plantain (*Plantago major*), red clover (*Trifolium pratense*), alfalfa (*Medicago sativa*), sedge (*Carex* sp.), Canada goldenrod (*Solidago canadensis*), hawkweed oxtongue (*Picris hieracioides*), wild carrot (*Daucus carota*), white bedstraw (*Galium mollugo*), blackberry (*Rubus allegheniensis*), bluegrass (*Poa* sp.), and bentgrass (*Agrostis* sp.).

Scrub-shrub uplands were dominated by common buckthorn (*Rhamnus cathartica*) and green ash (*Fraxinus pennsylvanica*) in the shrub layer. There was no tree layer. The herbaceous layer contained bluegrass, Canada goldenrod, and aster (*Aster* sp.).

Deciduous forest uplands were dominated by yellow birch (*Betula allegheniensis*), bitternut hickory (*Carya cordiformis*), eastern hemlock (*Tsuga canadensis*), green ash, red maple (*Acer rubrum*), black cherry (*Prunus serotina*), and apple (*Malus* sp.) in the tree layer. The shrub layer was sparse but contained red oak (*Quercus rubra*), bitternut hickory, and common buckthorn. Bitternut hickory, red maple, and green ash seedlings were found in the herbaceous layer along with poison ivy (*Toxicodendron radicans*), Canada goldenrod, and Honeysuckle (*Lonicera* sp.).

4.3 Wetlands/Water Resources Descriptions

Sixteen wetlands/water resources were found on or adjacent to the ROW and are described in the table below. The boundaries were flagged with coded surveyor's ribbon using the methods described in the Corps 2012 Regional Supplement to the 1987 Corps of Engineers Wetland Delineation Manual and the Freshwater Wetlands Delineation Manual. The delineated wetland boundaries with sample plot and photograph locations are shown on Figures 10-1 through 10-19 and were surveyed by CHA. Wetlands/water resources within the ROW total approximately 3.36 acres in size.

Photographs and field data sheets are provided in Appendix A and Appendix B, respectively. Jurisdictional Determination (JD) information for the following wetlands/water resources can be found in Appendix C.

Table 2.
Details of Wetlands Along the OCIDA Sewer Line Route Right-of-Way

Wetland/ Waters ID	Figure Number	Wetland/ Waters Size (acres within ROW)	Stream Length (feet)	Wetland/Waters Mapped Soil Type	Wetland/Waters Cover Type	Dominant Plants
A	10-2	0.06	84	Dunkirk silt loam, rolling	Emergent Wetland	*Acorus americanus*
B	10-2	-	66	Collamer silt loam, 2 to 6 % slopes	Wet Meadow	*Carex* sp.
C	10-3	0.11	-	Collamer silt loam, 2 to 6 % slopes	Emergent Wetland	*Populus deltoides, Fraxinus pennsylvanica, Phragmites australis*
D	10-4	0.23	258	Dunkirk silt loam, rolling/Wayland silt loam	Wet Meadow/Deciduous Forest Wetland	*Phalaris arundinacea/Acer saccharinum, Rhamnus cathartica, Cornus amomum, Onoclea sensibilis, Lysimachia nummularia*

Table 2. (cont.)

Wetland/ Waters ID	Figure Number	Wetland/ Waters Size (acres within ROW)	Stream Length (feet)	Wetland/Waters Mapped Soil Type	Wetland/Waters Cover Type	Dominant Plants
E	10-5	0.05	-	Collamer silt loam, 2 to 6 % slopes	Deciduous Forest Wetland	*Fraxinus pennsylvanica, Cornus amomum, Erigeron annuus, Epilobium hirsutum*
F	10-5	0.09	-	Collamer silt loam, 2 to 6 % slopes	Emergent Wetland	*Cornus amomum, Typha angustifolia, Symphyotrichum novi-belgii*
G	10-6	0.55	-	Collamer silt loam, 2 to 6 % slopes	Scrub-Shrub Wetland	*Fraxinus pennsylvanica, Salix* sp., *Lysimachia nummularia, Aster* sp.
H	10-6	0.14	-	Collamer silt loam, 2 to 6 % slopes	Scrub-Shrub Wetland	*Fraxinus pennsylvanica, Cornus amomum, Epilobium hirsutum, Aster* sp.
I	10-9	0.16	116	Fluvaquents, frequently flooded	Scrub-shrub Wetland	*Populus deltoides, Cornus amomum, Salix* sp., *Onoclea sensibilis, Toxicodendron radicans*
J	10-9	-	99	Collamer silt loam, 2 to 6 % slopes	Scrub-Shrub Wetland	*Salix* sp., *Cornus amomum, Poa* sp.
K	10-9	0.07	-	Collamer silt loam, 2 to 6 % slopes	Scrub-Shrub Wetland	*Fraxinus pennsylvanica, Cornus amomum, Impatiens capensis, Poa* sp., *Epilobium hirsutum*
L	10-13, 10-14	1.22	119	Williamson silt loam, 0 to 2 % slopes/Williamson silt loam, rolling	Wet Meadow/ Deciduous Forest Wetland	*Phragmites australis, Eutrochium maculatum, Eupatorium perfoliatum, Lythrum salicaria/Acer rubrum, Onoclea sensibilis, Osmunda regalis*
M	10-16	0.01	-	Collamer silt loam, 0 to 2 % slopes	Wet Meadow	*Cornus alba, Phragmites australis*
N	10-12	0.67	120	Collamer silt loam, 2 to 6 % slopes/Dunkirk silt loam, rolling	Wet Meadow/Scrub-Shrub Wetland	*Phragmites australis/Cornus amomum, Aster* sp., *Carex* sp.
O	10-16	-	-	Niagara silt loam, 0 to 4 % slopes	Wet Meadow	*Acer saccharinum, Phragmites australis, Aster* sp.
P	10-16	-	-	Niagara silt loam, 0 to 4 % slopes	Deciduous Forest Wetland	*Acer saccharinum, Cornus amomum, Phragmites australis*

A JD Form for the wetlands within the ROW is provided in Appendix C. Since all the wetlands have an apparent surface water connection to a tributary system of navigable waters, they are not isolated wetlands. Therefore, TES considers these wetlands to be Corps-jurisdictional areas.

5.0 SUMMARY

Terrestrial Environmental Specialists, Inc. (TES) performed a wetland investigation for the Onondaga County Industrial Development Agency (OCIDA) proposed sanitary sewer line route in the Town of Clay, Onondaga County, New York. The proposed sewer line begins south of the Oak Orchard Waste Water Treatment Plant, east along the Metropolitan Water Board right-of-way or ROW (located south of NYS Route 31), north along Caughdenoy Road and ends just south of Ver Plank Road at the Conrail railroad tracks.

TES collected and reviewed available background information and maps, including agency resource information maps, soils descriptions, and an aerial photograph to locate potential wetlands within the ROW.

The NYSDEC New York State Freshwater Wetlands map shows one state-regulated wetland within the ROW. This wetland (BRE-17) is a Class I wetland according to the NYSDEC wetland ranking system. Wetland BRE-17 is associated with Mud Creek.

The Surface Water Classification Map shows several mapped streams within the ROW. They include two tributaries of Mud Creek, Shaver Creek, and a tributary of Shaver Creek. All of these streams have a water quality Class and Standard of C. To be state-protected, a waterbody has to have a Class of C or higher and a Standard of CT (trout) or higher.

A preliminary field review of the ROW was conducted by TES on May 17, 2012. Flagging of the wetlands and data collection was performed by TES on September 27, 28, and October 1, 2012. The wetland boundaries were identified and delineated using the state and federal criteria for vegetation, soils, and hydrology.

The drainage basin for the ROW is approximately 1,228 acres. Several Relatively Permanent Waterbodies (RPW's) occur within the ROW. They include two tributaries of Mud Creek, Shaver Creek, and a tributary of Shaver Creek. These RPW's all flow into the Oneida River, a Traditional Navigable Waterbody (TNW), which is approximately 3,000 feet northwest of the ROW.

Sixteen wetlands/water resources were found on or adjacent to the ROW and are referred to as Wetland A (0.06 acre), Wetland B (66 linear feet), Wetland C (0.11 acre), Wetland D (0.23 acre), Wetland E (0.05 acre), Wetland F (0.09 acre), Wetland G (0.55 acre), Wetland H (0.14 acre), Wetland I (0.16 acre), Wetland J (99 linear feet), Wetland K (0.07 acre), Wetland L (1.22 acres), Wetland M (0.01 acre), Wetland N (0.67 acre), Wetland O (0.0 acre), and Wetland P (0.0 acre) . CHA surveyed the delineated wetland boundaries. Wetlands within the ROW totaled approximately 3.36 acres in size.

A JD Form for the wetlands within the ROW is provided in Appendix C. Since all the wetlands have an apparent surface water connection to a tributary system of navigable waters (i.e. the Oneida River), they are not isolated wetlands. Therefore, TES considers these wetlands to be Corps-jurisdictional areas.

6.0 REFERENCES

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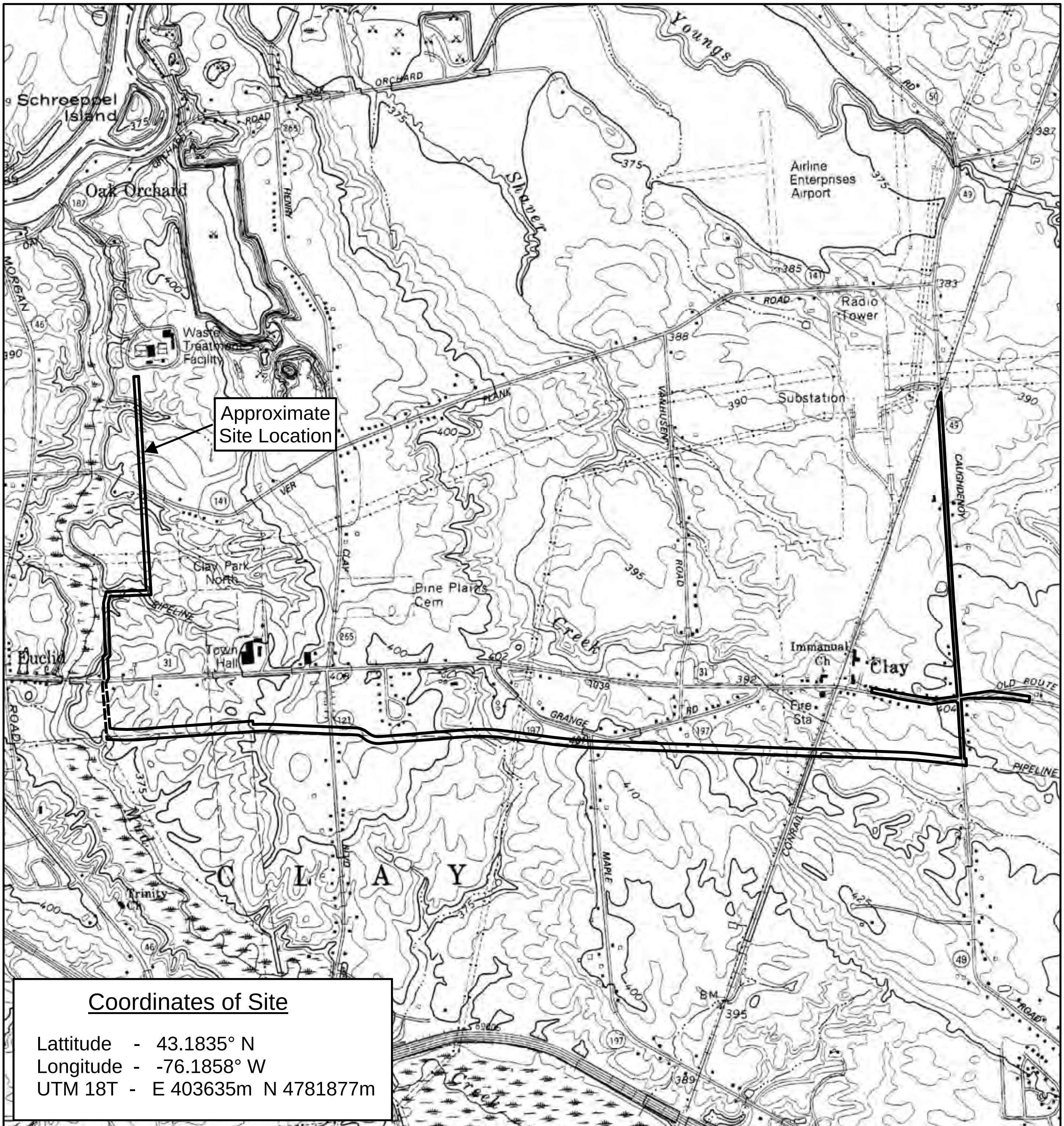
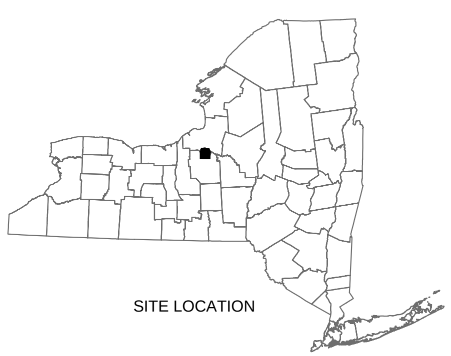
United States Department of Agriculture Natural Resources Conservation Service (USDA NRCS). Soil Survey Geographic (SSURGO) Database for Onondaga County, New York. Available online at: http://soildatamart.nrcs.usda.gov/ Download.aspx?Survey=NY067&UseState=NY.



Coordinates of Site

Lattitude - 43.1835° N
Longitude - -76.1858° W
UTM 18T - E 403635m N 4781877m



0 2,000 Feet

1 inch = 2,000 feet

N

Figure 1. NYS DOT Topographic Map

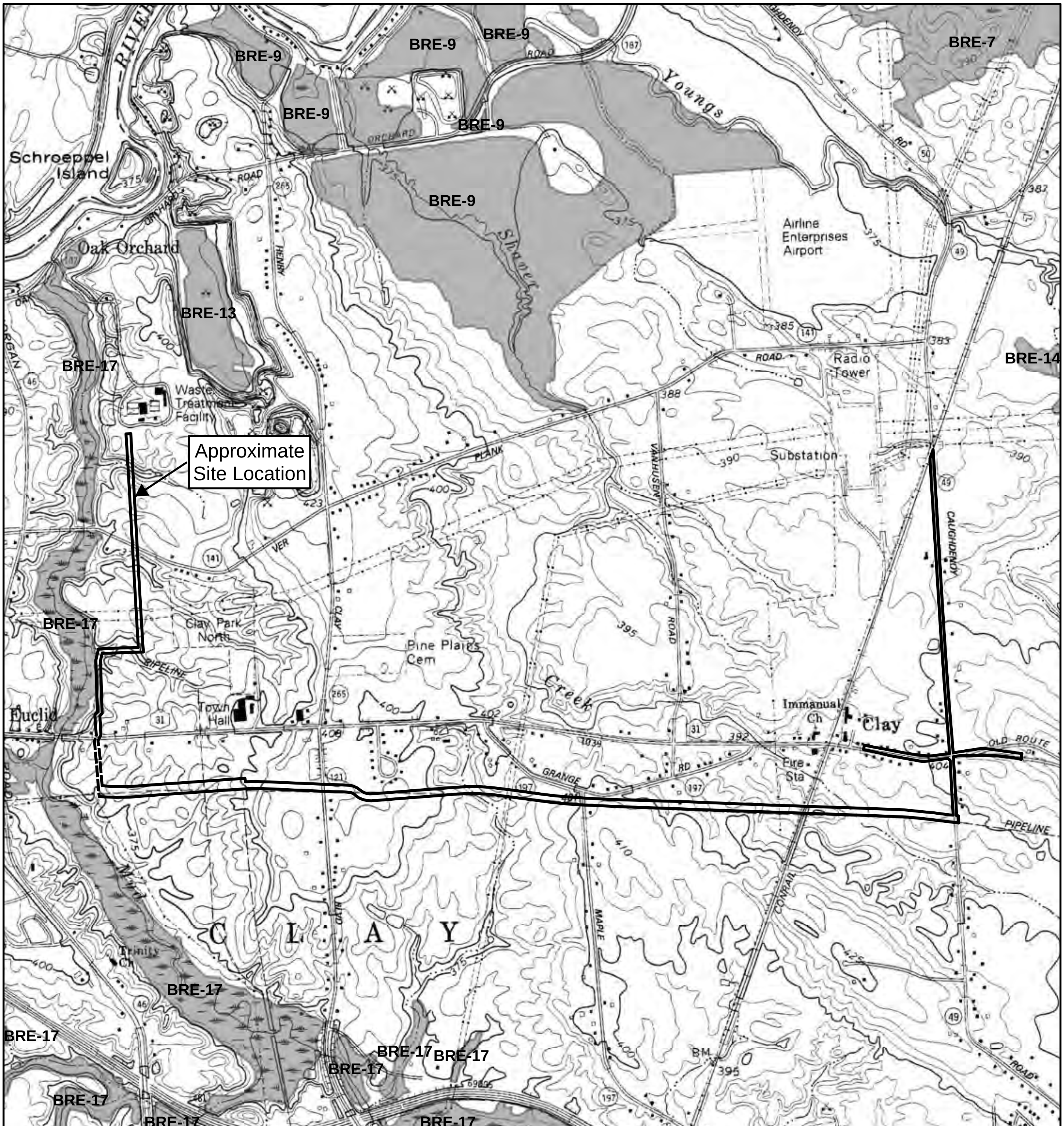
Site Location

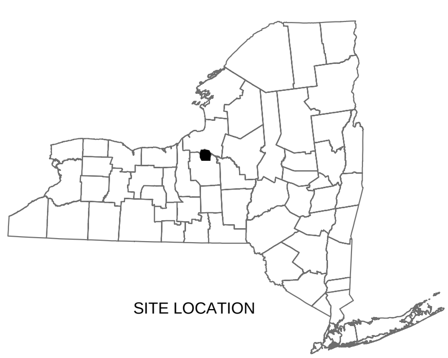
Brewerton Quadrangle

1989

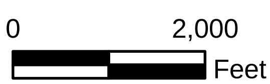
Prepared by TERRESTRIAL ENVIRONMENTAL SPECIALISTS, Inc.

TES File: IDA-2033A\2033A-Fig1.mxd\6-26-2013





Prepared by TERRESTRIAL ENVIRONMENTAL SPECIALISTS, Inc.



1 inch = 2,000 feet

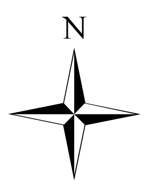
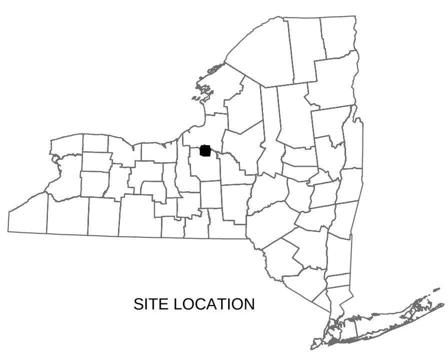


Figure 2. NYS Freshwater Wetlands Map

NYS Department of Environmental Conservation
cugir.mannlib.cornell.edu

Onondaga County
2010

TES File: IDA-2033A\2033A-Fig2.mxd\6-26-2013



Prepared by TERRESTRIAL ENVIRONMENTAL SPECIALISTS, Inc.

0 2,000 Feet

1 inch = 2,000 feet

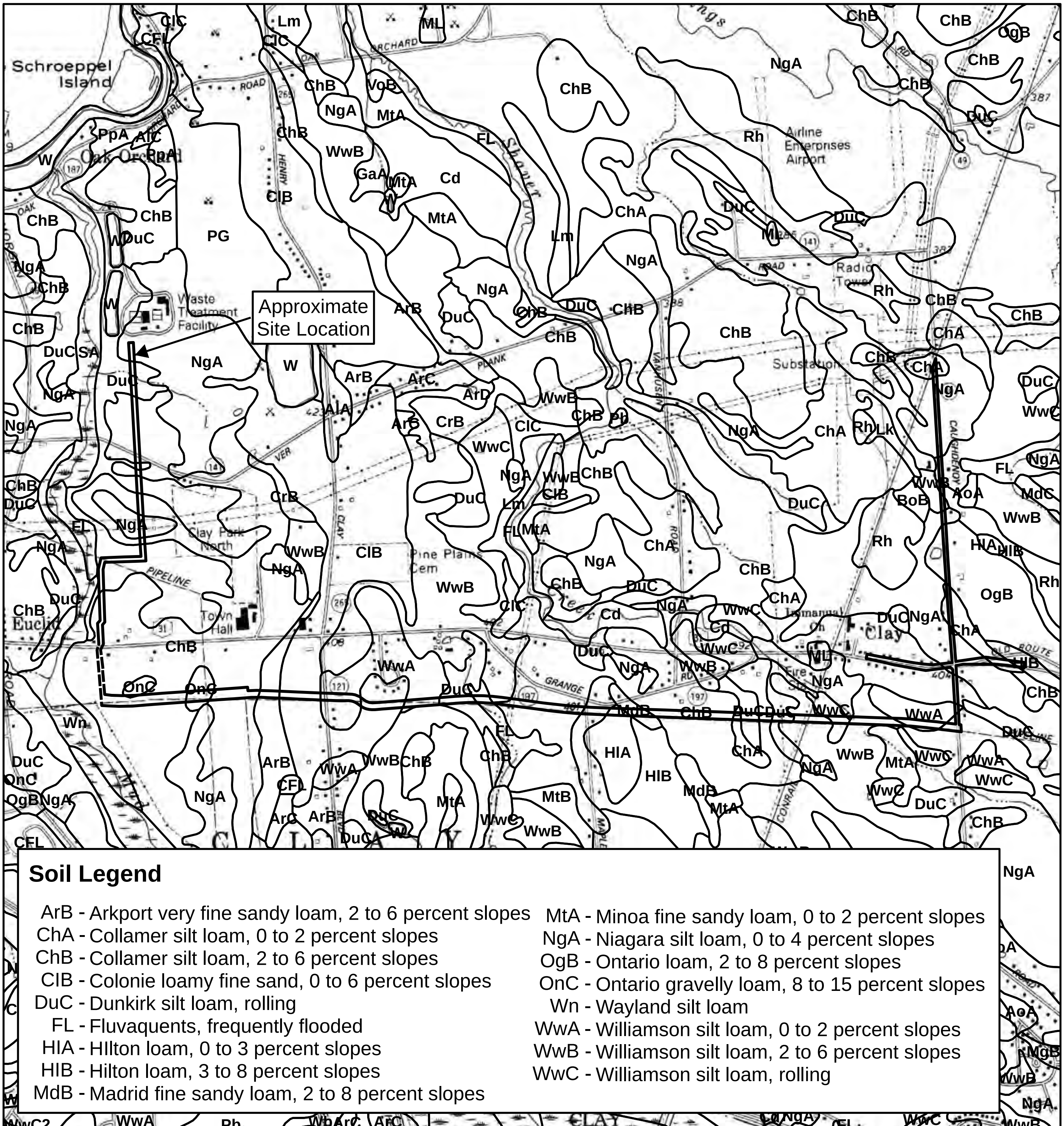
N

Figure 3. National Wetlands Inventory Map

U.S. Fish & Wildlife Service
www.fws.gov/nwi

2011

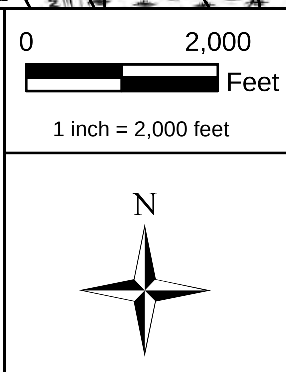
TES File: IDA-2033A\2033A-Fig3.mxd\6-26-2013



Soil Legend

ArB -	Arkport very fine sandy loam, 2 to 6 percent slopes
ChA -	Collamer silt loam, 0 to 2 percent slopes
ChB -	Collamer silt loam, 2 to 6 percent slopes
ClB -	Colonie loamy fine sand, 0 to 6 percent slopes
DuC -	Dunkirk silt loam, rolling
FL -	Fluvaquents, frequently flooded
HlA -	HIlton loam, 0 to 3 percent slopes
HlB -	Hilton loam, 3 to 8 percent slopes
MdB -	Madrid fine sandy loam, 2 to 8 percent slopes
MtA -	Minoa fine sandy loam, 0 to 2 percent slopes
NgA -	Niagara silt loam, 0 to 4 percent slopes
OgB -	Ontario loam, 2 to 8 percent slopes
OnC -	Ontario gravelly loam, 8 to 15 percent slopes
Wn -	Wayland silt loam
WwA -	Williamson silt loam, 0 to 2 percent slopes
WwB -	Williamson silt loam, 2 to 6 percent slopes
WwC -	Williamson silt loam, rolling

Prepared by TERRESTRIAL ENVIRONMENTAL SPECIALISTS, Inc.



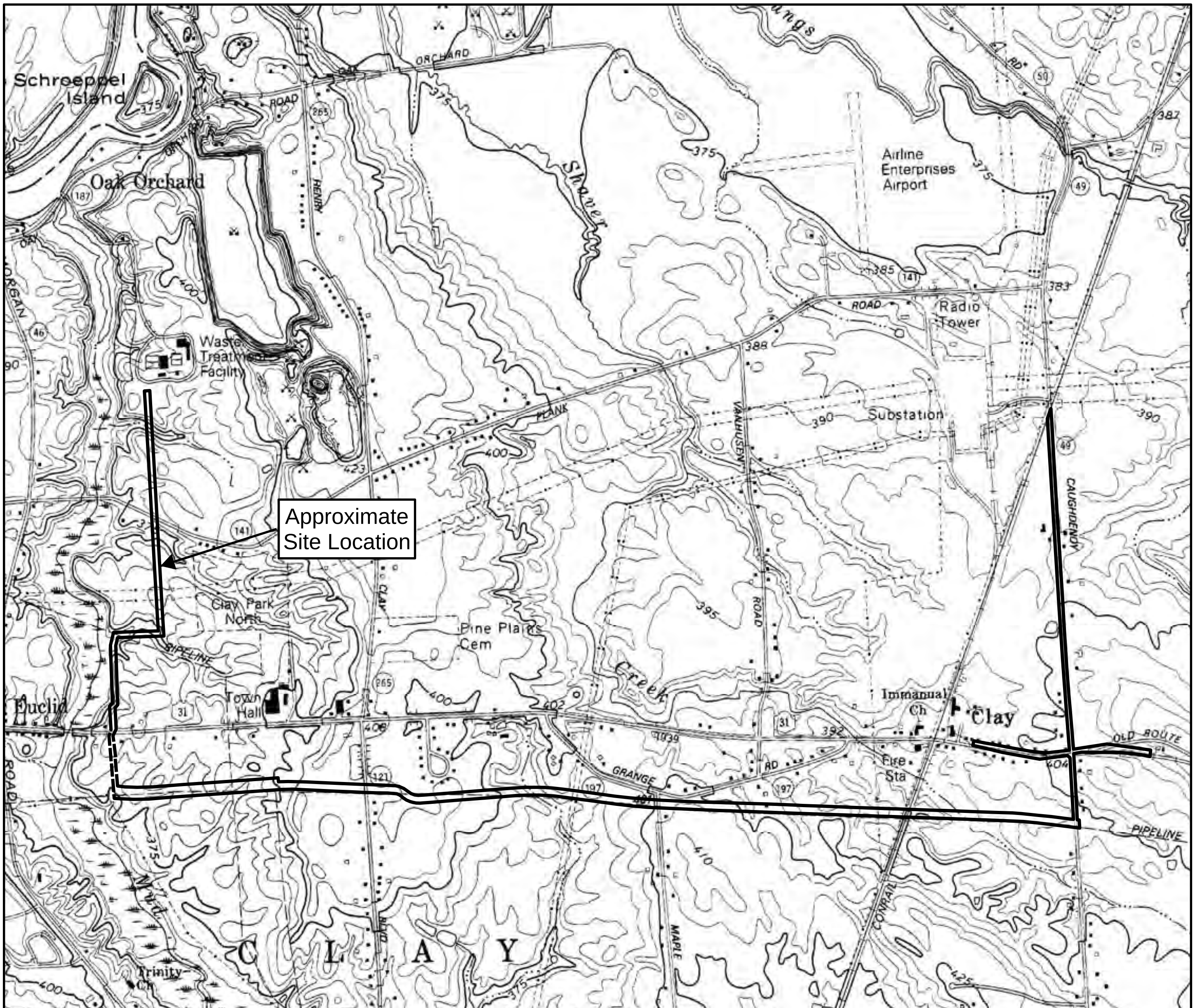
1 inch = 2,000 feet

Figure 4. Soil Survey Map

Natural Resources Conservation Service
SoilDataMart.nrcs.usda.gov
2011

Onondaga County Soil Survey

TES File: IDA-2033A\2033A-Fig4.mxd\6-26-2013



Item No.	*Waters Index Number*	*Name*	*Description*	*Map Ref. No.*	*Class*	*Standards*
10	Ont. 66-11-3a and tribs., 3b, 4, 5, 7, 10 and tribs., 11 and tribs., 12 and tribs., 13 and tribs., 14 and tribs.	Tribs. of Oneida River	Enter Oneida River from a point 1.0 mile north of Bonsted Road and 1.5 miles southwest of Pleasant Lake at a point 0.5 mile south of Orangeport Road and 1.9 miles west of Clay-Cicero Town line.	H-14ne H-15nw H-15ne H-15-se	C	C

Title 6 NYCRR, Chapter X
Article 14, Part 899.4 (1996)

Map H-15nw

0 2,000 Feet

1 inch = 2,000 feet

N

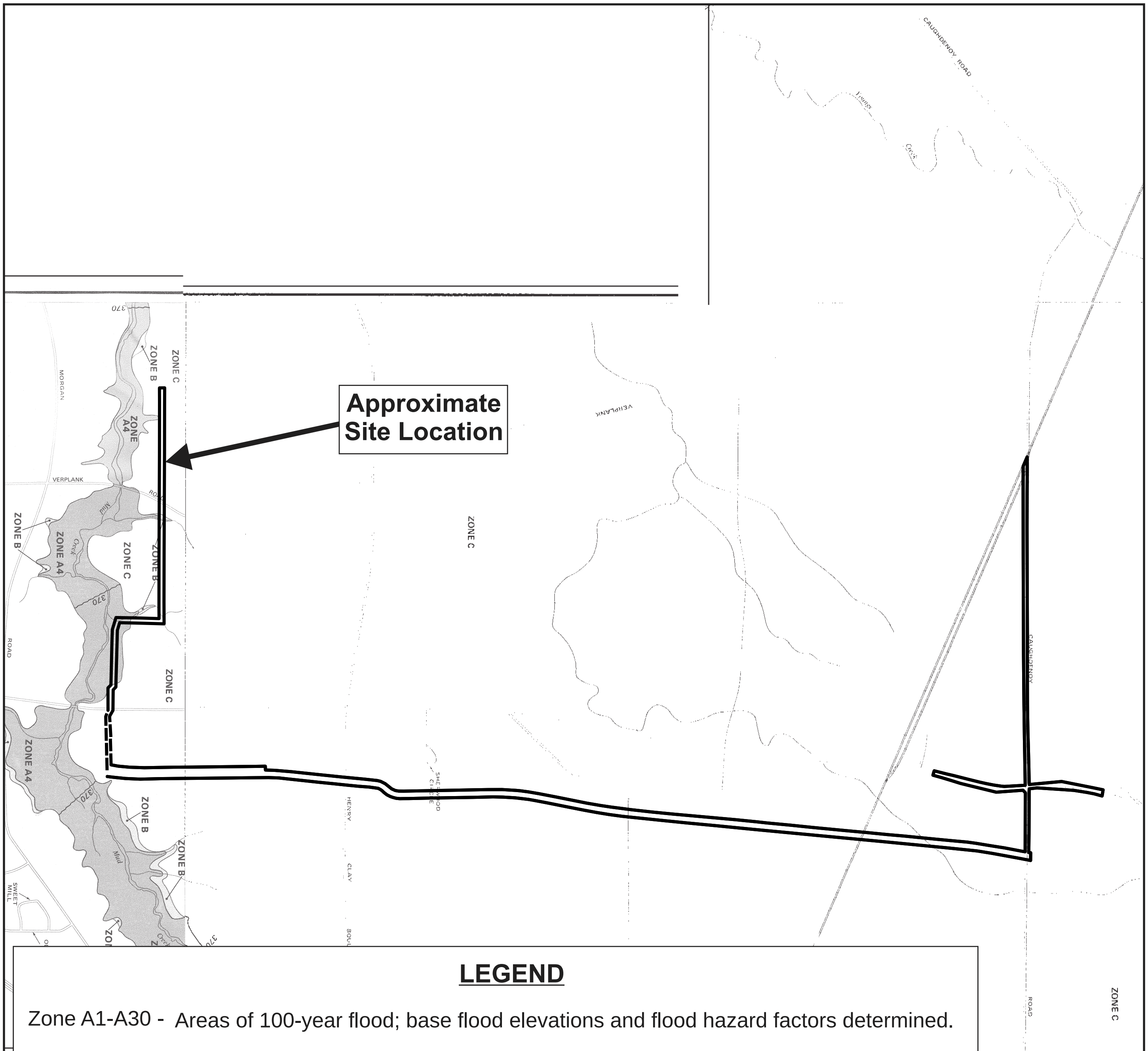
Figure 5. Surface Water Classification Map

NYSDEC

Brewerton Quadrangle

Prepared by TERRESTRIAL ENVIRONMENTAL SPECIALISTS, Inc.

TES File: IDA-2033A\2033A-Fig5.mxd\6-26-2013



LEGEND

Zone A1-A30 - Areas of 100-year flood; base flood elevations and flood hazard factors determined.

Zone B - Areas between limits of the 100-year flood and the 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood.

Zone C - Areas of minimal flooding.

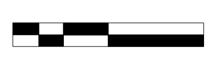
Panel Numbers:

360573 0010 D
(Effective Date 3/16/1992)

360573 0025 C
(Effective Date 4/17/1989)

360573 0005 C
(Effective Date 4/1/1980)

Prepared by TERRESTRIAL ENVIRONMENTAL SPECIALISTS, Inc.



SCALE 1" = 2000'

NORTH

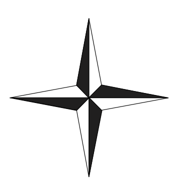


Figure 6. Flood Insurance Rate Map

Federal Emergency Management Agency

Town of Clay, NY

TES File: IDA-2033A\2033A-Fig6.cdr\6-26-2013

Aerial Photograph Obtained
from NYS GIS Clearinghouse
2009

Figure Prepared by
Terrestrial Environmental
Specialists, Inc.

N

0 300
Feet

1 inch = 300 feet

Figure 7-1. Aerial Photograph of Site with Wetland Locations

Sheet 1 of 6

TES File: IDA-2033A\2033A-Aerial1of6.mxd\6-13-2013

N

0 300

Feet

1 inch = 300 feet

Aerial Photograph Obtained from NYS GIS Clearinghouse 2009

Figure Prepared by Terrestrial Environmental Specialists, Inc.

Figure 7-2. Aerial Photograph of Site with Wetland Locations

Sheet 2 of 6

TES File: IDA-2033A\2033A-Aerial2of6.mxd\6-13-2013

Aerial Photograph Obtained from NYS GIS Clearinghouse 2009

Figure Prepared by Terrestrial Environmental Specialists, Inc.

Figure 7-3. Aerial Photograph of Site with Wetland Locations

Sheet 3 of 6

TES File: IDA-2033A\2033A-Aerial3of6.mxd\6-13-2013

N

0 300

Feet

1 inch = 300 feet

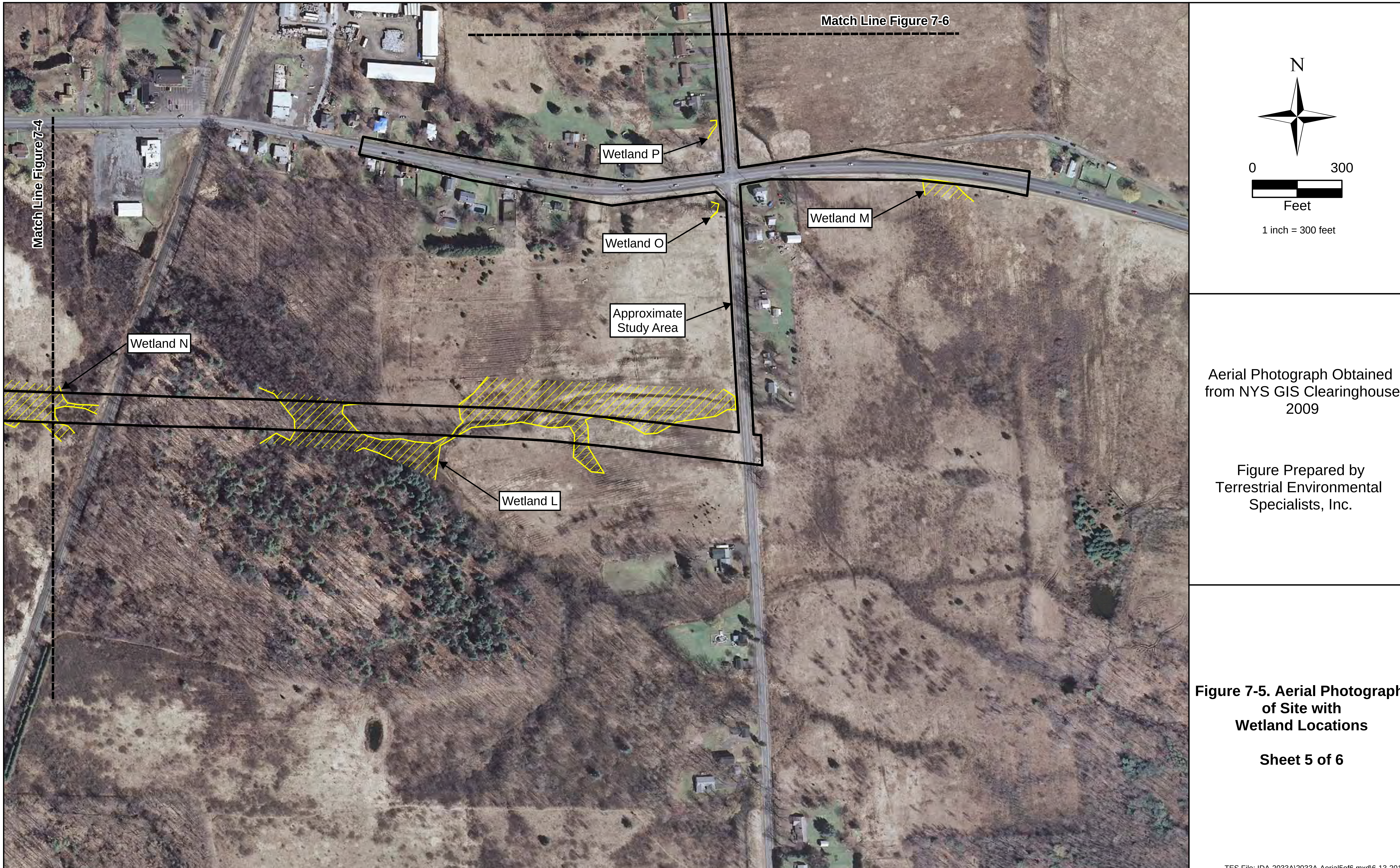
Aerial Photograph Obtained from NYS GIS Clearinghouse 2009

Figure Prepared by Terrestrial Environmental Specialists, Inc.

Figure 7-4. Aerial Photograph of Site with Wetland Locations

Sheet 4 of 6

TES File: IDA-2033A\2033A-Aerial4of6.mxd\6-13-2013



Aerial Photograph Obtained from NYS GIS Clearinghouse 2009

Figure Prepared by Terrestrial Environmental Specialists, Inc.

Figure 7-5. Aerial Photograph of Site with Wetland Locations

Sheet 5 of 6

TES File: IDA-2033A\2033A-Aerial5of6.mxd\6-13-2013

Aerial Photograph Obtained
from NYS GIS Clearinghouse
2009

Figure Prepared by
Terrestrial Environmental
Specialists, Inc.

N

0 300

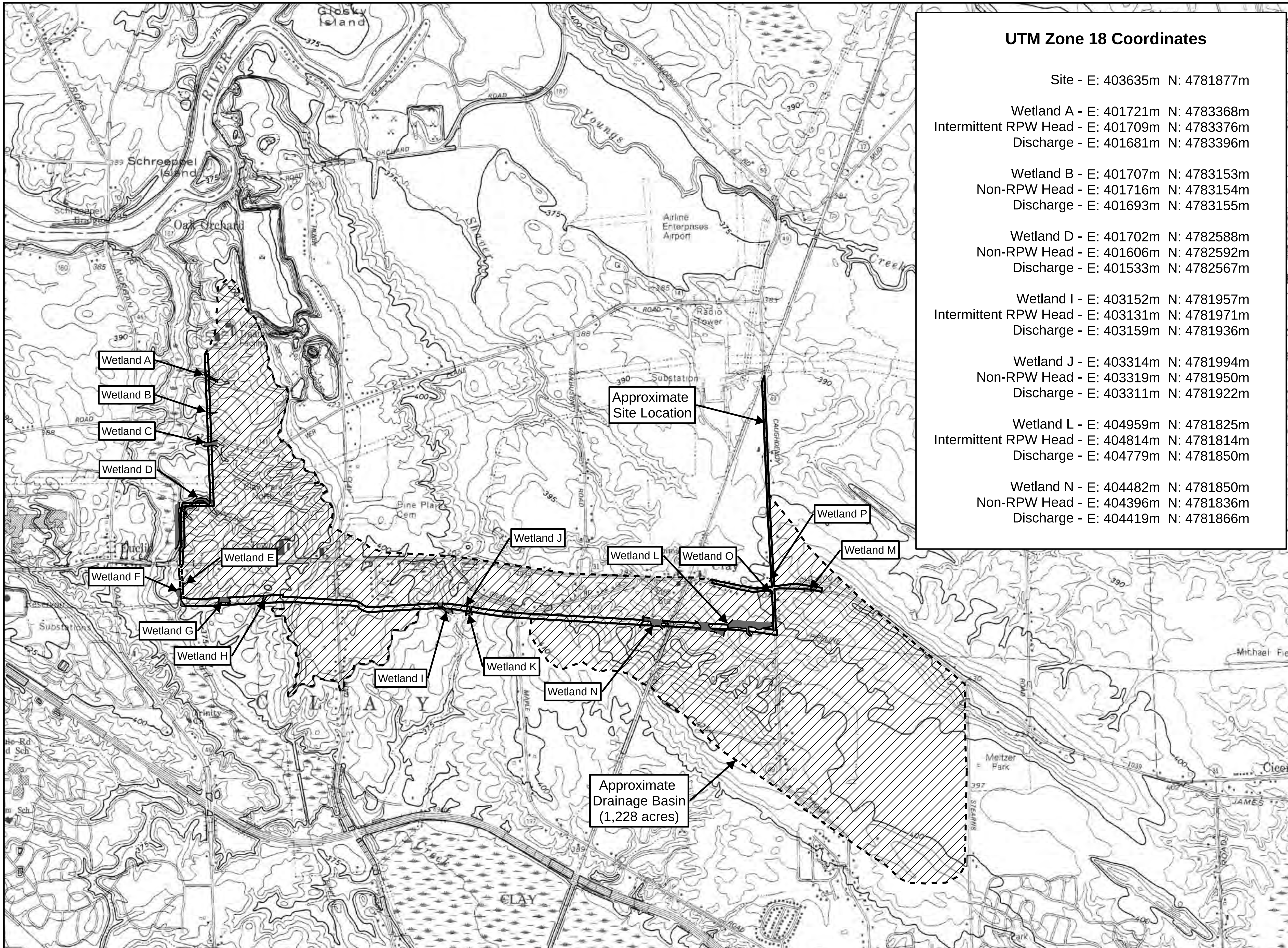
Feet

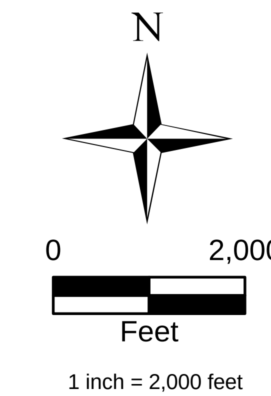
1 inch = 300 feet

Figure 7-6. Aerial Photograph of Site with Wetland Locations

Sheet 6 of 6

TES File: IDA-2033A\2033A-Aerial6of6.mxd\6-13-2013



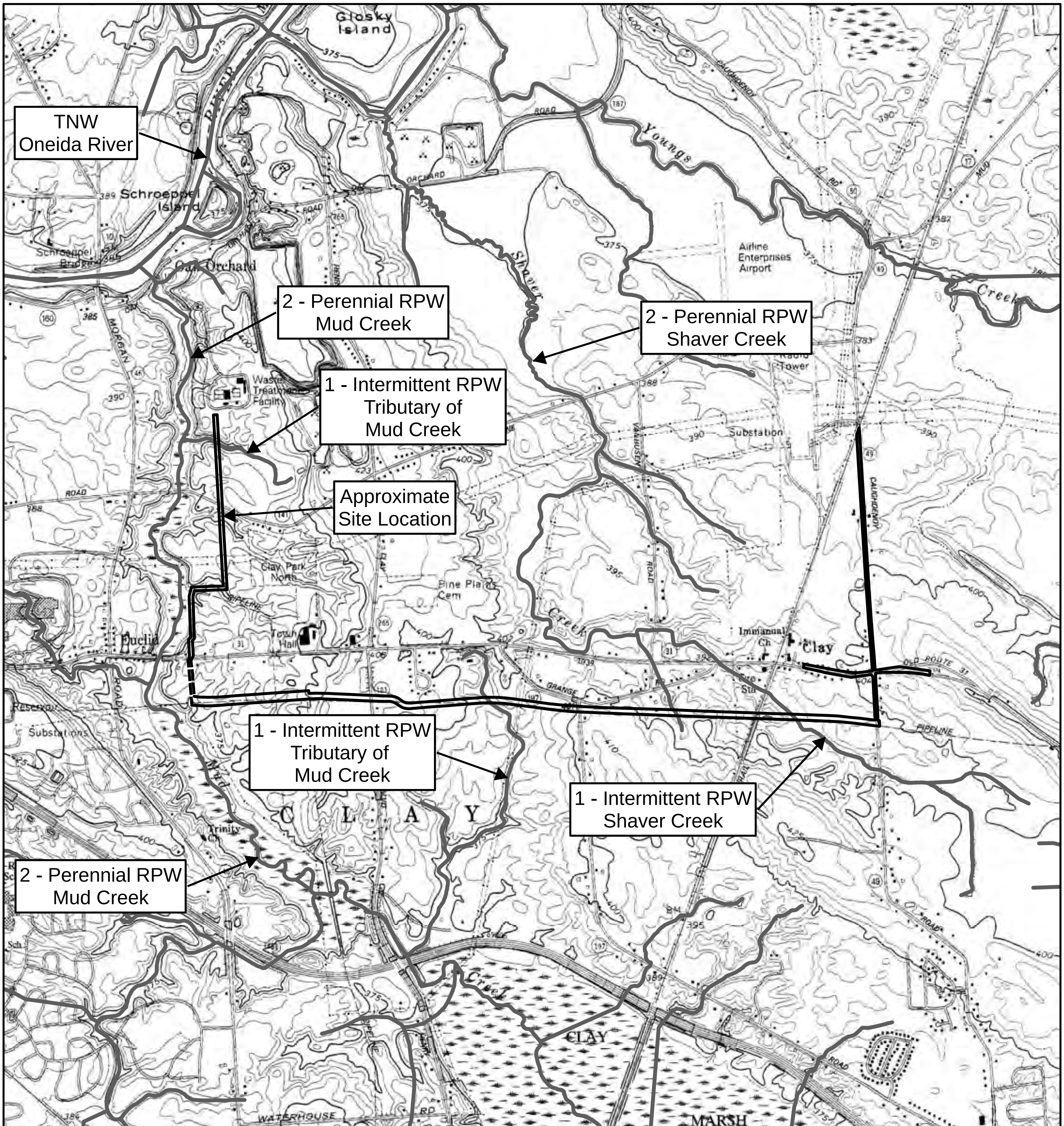


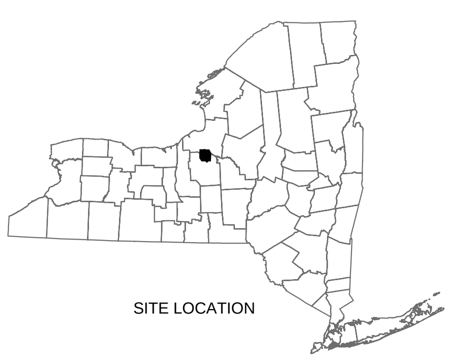
Prepared by TERRESTRIAL ENVIRONMENTAL SPECIALISTS, Inc.

Figure 8.

Drainage Basin Map

TES File: IDA-2033A\2033A-Drainage.mxd\6-26-2013





0 2,500 Feet

1 inch = 2,500 feet

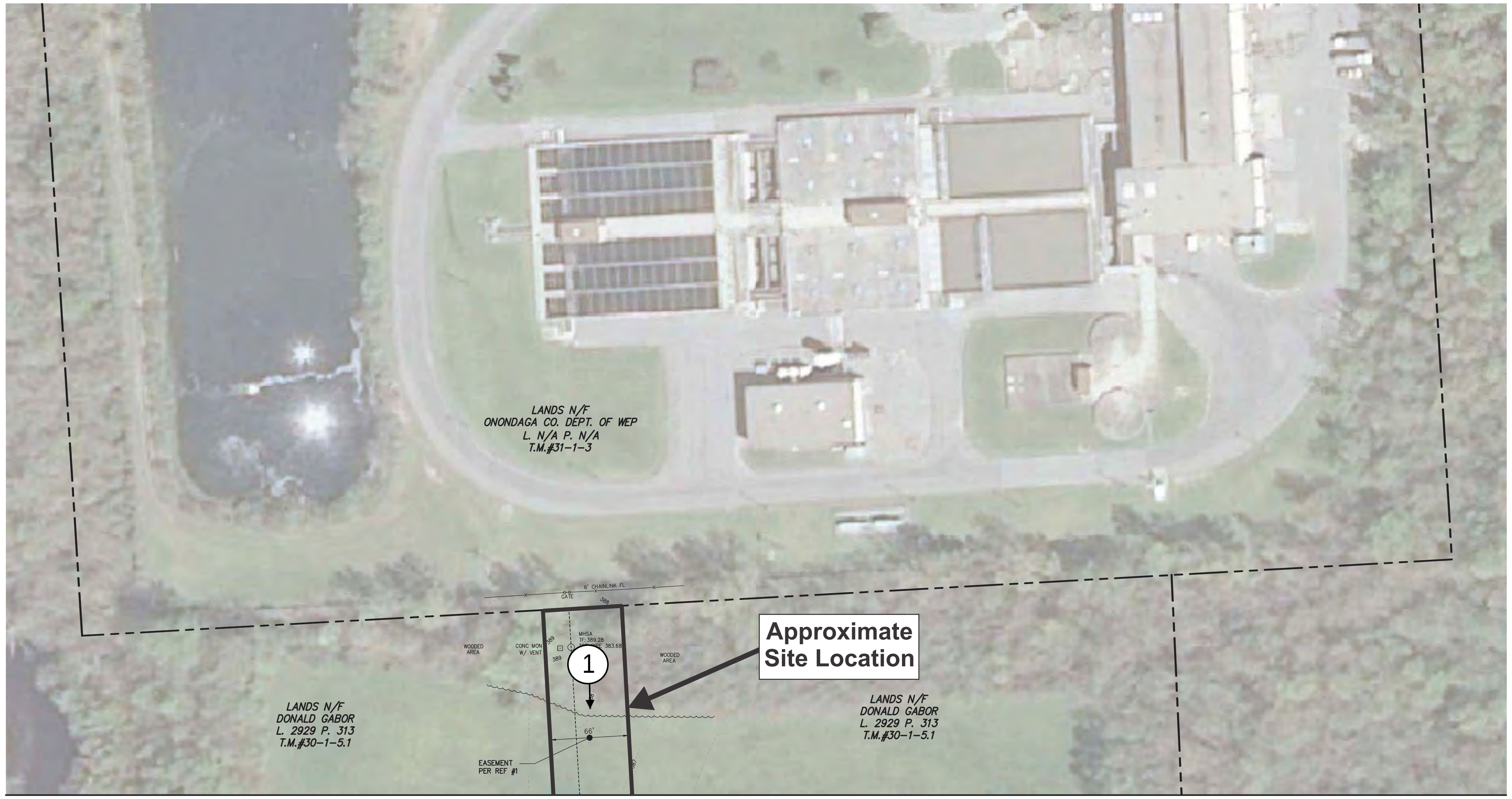
N

Figure 9.

Stream Reach Map

Prepared by TERRESTRIAL ENVIRONMENTAL SPECIALISTS, Inc.

TES File: IDA-2033A\2033A-StreamReach.mxd\6-26-2013



MATCH TO SHEET 2 OF 19

LEGEND:

SIGN	PARCEL BOUNDARY LINE
SIGN (2 POST)	ADJOINING PARCEL LINE
DECIDUOUS TREE	STREET/HIGHWAY LINE
CONIFEROUS TREE	CHAIN LINK FENCE LINE
SHRUB	STOCKADE FENCE LINE
LIGHT POLE (LIGHT)	STORM SEWER LINE W/SQUARE CATCH BASIN (CB)
BOLLARD (BOL)	SANITARY SEWER LINE W/MANHOLE AND CLEANOUT (MHSA, CO)
HYDRANT (HYD)	OVERHEAD UTILITY LINE W/POWER POLE (POLE)
WATER MANHOLE (MHW)	ELECTRIC LINE W/ELECTRIC MANHOLE (ELEC MH)
GAS SHUT OFF VALVE (GSO)	WATER LINE W/VALVE (WV)
BORING W/ DESIGNATOR (B-1)	GAS LINE W/VALVE (GV)
PROPERTY MONUMENTATION FOUND (REBAR, IRON PIN, IRON PIPE)	TELEPHONE LINE W/SIGNAL BOX (SIG BOX)
SURVEY CONTROL POINT	CONTOUR LINE

RECORD DRAWINGS UTILIZED:

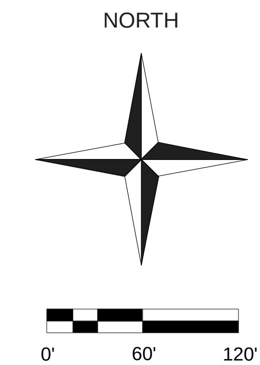
1. OAK ORCHARD FORCE MAIN & EFFLUENT SEWER, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.216, DATED FEBRUARY 7, 1975.
2. PLAN AND PROFILE RECORD DRAWINGS FOR METRO WATER BOARD'S 54" WATER TRANSMISSION MAIN ALONG 99-FOOT WIDE EASEMENT, PREPARED BY, O'BRIEN & GERE ENGINEERS, INC., FILE No. 446.23, LAST DATED JULY 7, 1965.
3. PLAN AND PROFILE DESIGN DRAWINGS FOR ONONDAGA COUNTY'S CLAY-CICERO 24" EFFLUENT FORCE MAIN, PREPARED O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.138, DATED SEPTEMBER 27, 1965.
4. PLAN AND PROFILE DESIGN DRAWING S FOR ONONDAGA COUNTY'S DAVIS ROAD 36" FORCE MAIN, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.243, DATED JUNE 27, 1975.

NOTES:

1. BASE MAPPING PREPARED BY CHA FROM A DECEMBER 2012 THROUGH JANUARY 2013 FIELD SURVEY (ROCH. FB.150, P.32).
2. NORTH ORIENTATION AND CONTOURS ARE BASED ON GPS ESTABLISHED AT THE TIME OF THE SURVEY. REFERENCED TO NAD 83(CORS96), NYS-CENTRAL (US FEET) AND NAVD 88 (US FEET) USING NYSDOT RTN SYSTEM.
3. UNDERGROUND UTILITIES ARE SHOWN FROM FIELD LOCATION IF POSSIBLE, OTHERS ARE SHOWN FROM RECORD DATA. THEIR EXACT LOCATION MAY DIFFER FROM THAT AS SHOWN AND OTHERS MAY EXIST.
4. SUBJECT TO ANY RIGHTS, EASEMENTS, COVENANTS OR RESTRICTIONS OF RECORD.
5. NO BOUNDARY TASKS WERE PERFORMED DURING THIS SURVEY.
6. 4"-36" OF SNOW COVER WITH UP TO 10' HIGH SNOW PILES EXISTED DURING PORTIONS OF FIELD SURVEY.

LEGEND

1 → Photo Location and Direction



APPROXIMATE SCALE IN FEET

Figure Prepared by Terrestrial Environmental Specialists, Inc.

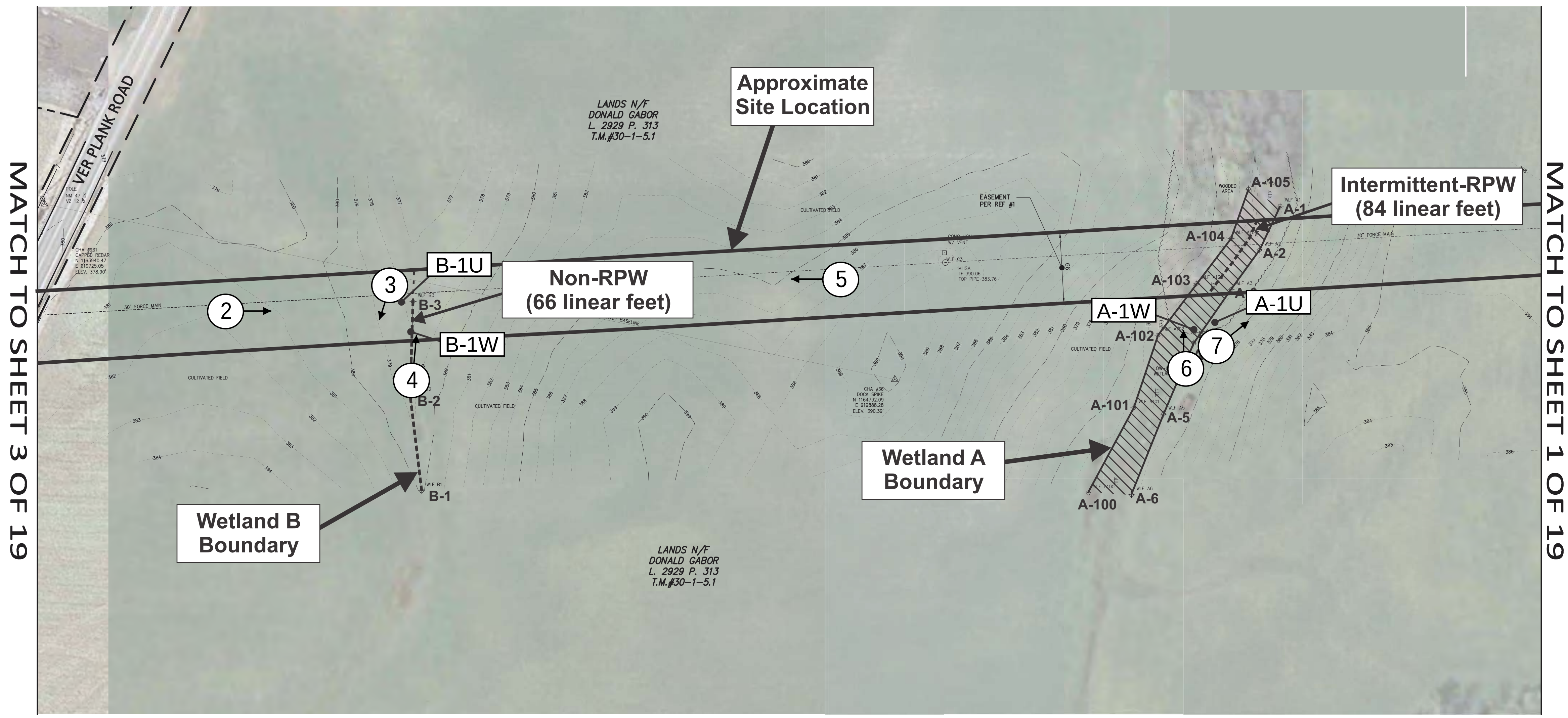
Base Map Provided by CHA Companies

Figure 10-1.

Wetland Survey Map with Plot and Photograph Locations

Sheet 1 of 19

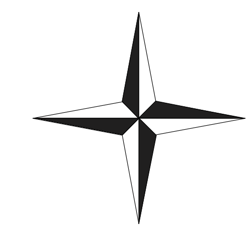
TES File: IDA-2033A\2033A-PlotPhoto1.cdr\6-25-2013

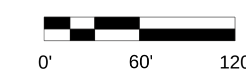


LEGEND

A-1W Sample Plot Location

2 Photo Location and Direction





APPROXIMATE SCALE IN FEET

Figure Prepared by Terrestrial Environmental Specialists, Inc.

Base Map Provided by CHA Companies

LEGEND:

SIGN
SIGN (2 POST)
DECIDUOUS TREE
CONIFEROUS TREE
SHRUB
LIGHT POLE
BOLLARD
HYDRANT
WATER MANHOLE
GAS SHUT OFF VALVE
BORING W/ DESIGNATOR
PROPERTY MONUMENTATION FOUND
SURVEY CONTROL POINT

PARCEL BOUNDARY LINE
ADJOINING PARCEL LINE
STREET/HIGHWAY LINE
CHAIN LINK FENCE LINE
STOCKADE FENCE LINE
STORM SEWER LINE W/SQUARE CATCH BASIN
SANITARY SEWER LINE W/MANHOLE AND CLEANOUT
OVERHEAD UTILITY LINE W/POWER POLE
ELECTRIC LINE W/ELECTRIC MANHOLE
WATER LINE W/VALVE
GAS LINE W/VALVE
TELEPHONE LINE W/SIGNAL BOX
CONTOUR LINE

RECORD DRAWINGS UTILIZED:

1. OAK ORCHARD FORCE MAIN & EFFLUENT SEWER, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.216, DATED FEBRUARY 7, 1975.
2. PLAN AND PROFILE RECORD DRAWINGS FOR METRO WATER BOARD'S 54" WATER TRANSMISSION MAIN ALONG 99-FOOT WIDE EASEMENT, PREPARED BY, O'BRIEN & GERE ENGINEERS, INC., FILE No. 446.23, LAST DATED JULY 7, 1965.
3. PLAN AND PROFILE DESIGN DRAWINGS FOR ONONDAGA COUNTY'S CLAY-CICERO 24" EFFLUENT FORCE MAIN, PREPARED O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.138, DATED SEPTEMBER 27, 1965.
4. PLAN AND PROFILE DESIGN DRAWING S FOR ONONDAGA COUNTY'S DAVIS ROAD 36" FORCE MAIN, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.243, DATED JUNE 27, 1975.

NOTES:

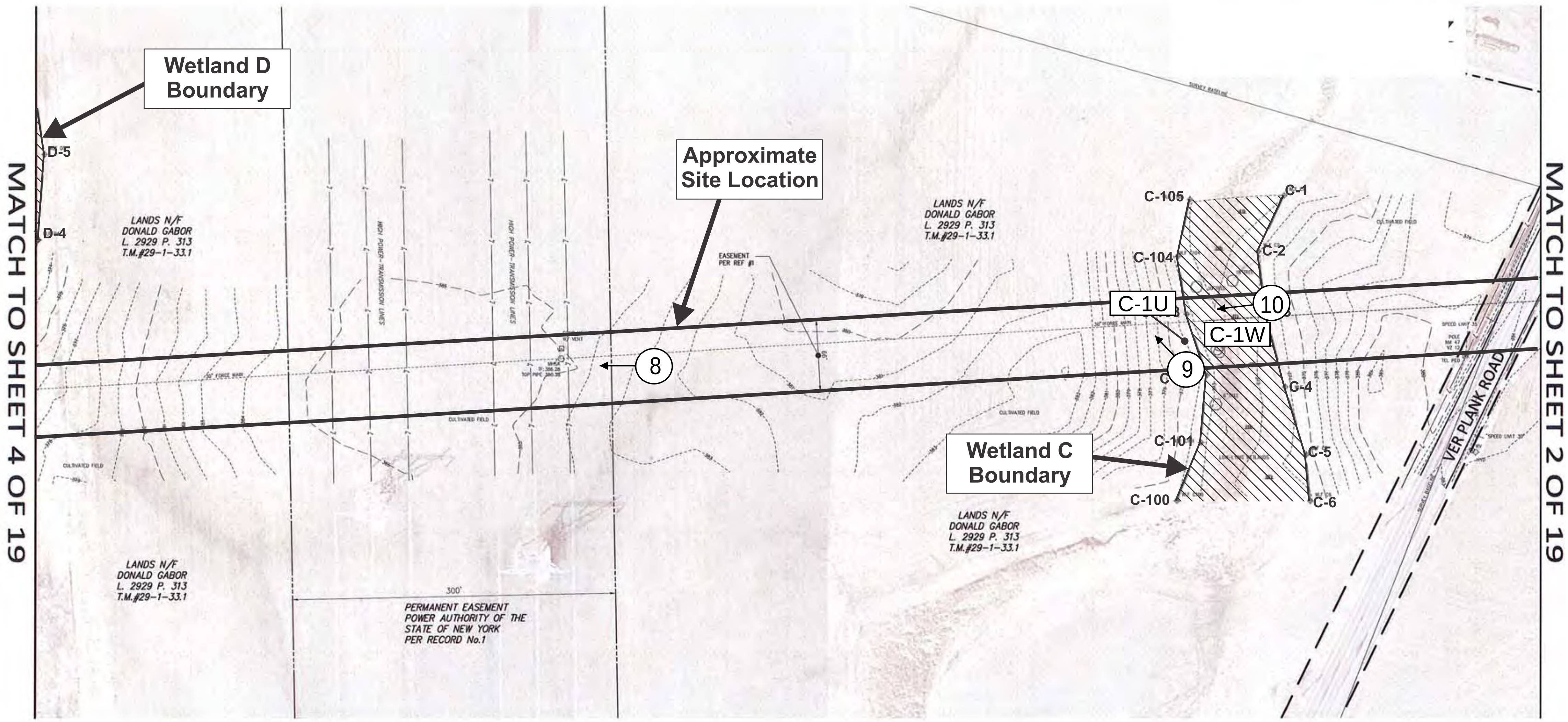
1. BASE MAPPING PREPARED BY CHA FROM A DECEMBER 2012 THROUGH JANUARY 2013 FIELD SURVEY (ROCH. FB.150, P.32).
2. NORTH ORIENTATION AND CONTOURS ARE BASED ON GPS ESTABLISHED AT THE TIME OF THE SURVEY. REFERENCED TO NAD 83(CORS96), NYS-CENTRAL (US FEET) AND NAVD 88 (US FEET) USING NYSDOT RTN SYSTEM.
3. UNDERGROUND UTILITIES ARE SHOWN FROM FIELD LOCATION IF POSSIBLE, OTHERS ARE SHOWN FROM RECORD DATA. THEIR EXACT LOCATION MAY DIFFER FROM THAT AS SHOWN AND OTHERS MAY EXIST.
4. SUBJECT TO ANY RIGHTS, EASEMENTS, COVENANTS OR RESTRICTIONS OF RECORD.
5. NO BOUNDARY TASKS WERE PERFORMED DURING THIS SURVEY.
6. 4"-36" OF SNOW COVER WITH UP TO 10' HIGH SNOW PILES EXISTED DURING PORTIONS OF FIELD SURVEY.

Figure 10-2.

Wetland Survey Map with Plot and Photograph Locations

Sheet 2 of 19

TES File: IDA-2033A\2033A-PlotPhoto2.cdr\6-26-2013



LEGEND:

- SIGN — PARCEL BOUNDARY LINE
- SIGN (2 POST) — ADJOINING PARCEL LINE
- DECIDUOUS TREE — STREET/HIGHWAY LINE
- CONIFEROUS TREE — CHAIN LINK FENCE LINE
- SHRUB — STOCKADE FENCE LINE
- LIGHT POLE (LIGHT) — STORM SEWER LINE W/SQUARE CATCH BASIN (CB)
- BOLLARD (BOL) — SANITARY SEWER LINE W/MANHOLE AND CLEANOUT (MHSA, CO)
- HYDRANT (HYD) — OVERHEAD UTILITY LINE W/POWER POLE (POLE)
- WATER MANHOLE (MHW) — ELECTRIC LINE W/ELECTRIC MANHOLE (ELEC MH)
- GAS SHUT OFF VALVE (GSO) — WATER LINE W/VALVE (WV)
- BORING W/ DESIGNATOR (B-1) — GAS LINE W/VALVE (GV)
- PROPERTY MONUMENTATION FOUND (REBAR, IRON PIN, IRON PIPE) — TELEPHONE LINE W/SIGNAL BOX (SIG BOX)
- SURVEY CONTROL POINT — CONTOUR LINE

RECORD DRAWINGS UTILIZED:

1. OAK ORCHARD FORCE MAIN & EFFLUENT SEWER, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.216, DATED FEBRUARY 7, 1975.
2. PLAN AND PROFILE RECORD DRAWINGS FOR METRO WATER BOARD'S 54" WATER TRANSMISSION MAIN ALONG 99-FOOT WIDE EASEMENT, PREPARED BY, O'BRIEN & GERE ENGINEERS, INC., FILE No. 446.23, LAST DATED JULY 7, 1965.
3. PLAN AND PROFILE DESIGN DRAWINGS FOR ONONDAGA COUNTY'S CLAY-CICERO 24" EFFLUENT FORCE MAIN, PREPARED O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.138, DATED SEPTEMBER 27, 1965.
4. PLAN AND PROFILE DESIGN DRAWING S FOR ONONDAGA COUNTY'S DAVIS ROAD 36" FORCE MAIN, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.243, DATED JUNE 27, 1975.

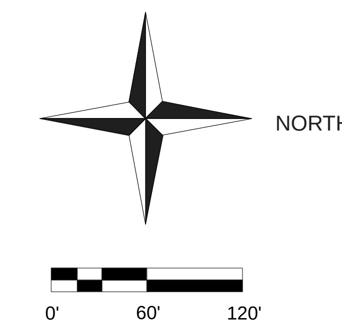
NOTES:

1. BASE MAPPING PREPARED BY CHA FROM A DECEMBER 2012 THROUGH JANUARY 2013 FIELD SURVEY (ROCH. FB.150, P.32).
2. NORTH ORIENTATION AND CONTOURS ARE BASED ON GPS ESTABLISHED AT THE TIME OF THE SURVEY. REFERENCED TO NAD 83(CORS96), NYS-CENTRAL (US FEET) AND NAVD 88 (US FEET) USING NYSDOT RTN SYSTEM.
3. UNDERGROUND UTILITIES ARE SHOWN FROM FIELD LOCATION IF POSSIBLE, OTHERS ARE SHOWN FROM RECORD DATA. THEIR EXACT LOCATION MAY DIFFER FROM THAT AS SHOWN AND OTHERS MAY EXIST.
4. SUBJECT TO ANY RIGHTS, EASEMENTS, COVENANTS OR RESTRICTIONS OF RECORD.
5. NO BOUNDARY TASKS WERE PERFORMED DURING THIS SURVEY.
6. 4"-36" OF SNOW COVER WITH UP TO 10' HIGH SNOW PILES EXISTED DURING PORTIONS OF FIELD SURVEY.

LEGEND

C-1W Sample Plot Location

8 Photo Location and Direction



APPROXIMATE SCALE IN FEET

Figure Prepared by Terrestrial Environmental Specialists, Inc.

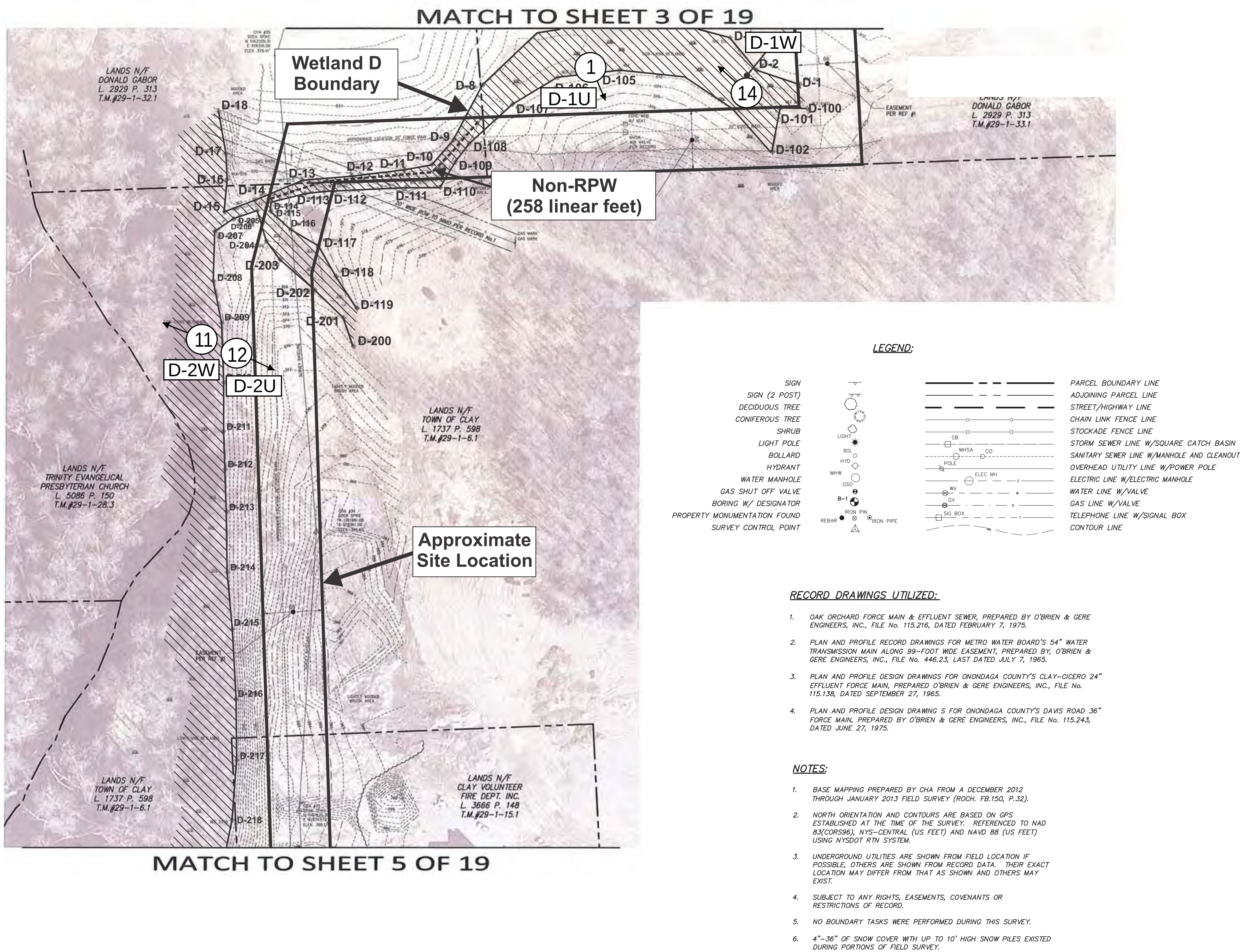
Base Map Provided by CHA Companies

Figure 10-3.

Wetland Survey Map with Plot and Photograph Locations

Sheet 3 of 19

TES File: IDA-2033A\2033A-PlotPhoto3.cdr\6-25-2013



LEGEND

D-1W Sample Plot Location

11 Photo Location and Direction

NORTH

0' 60' 120'

APPROXIMATE SCALE IN FEET

Figure Prepared by Terrestrial Environmental Specialists, Inc.

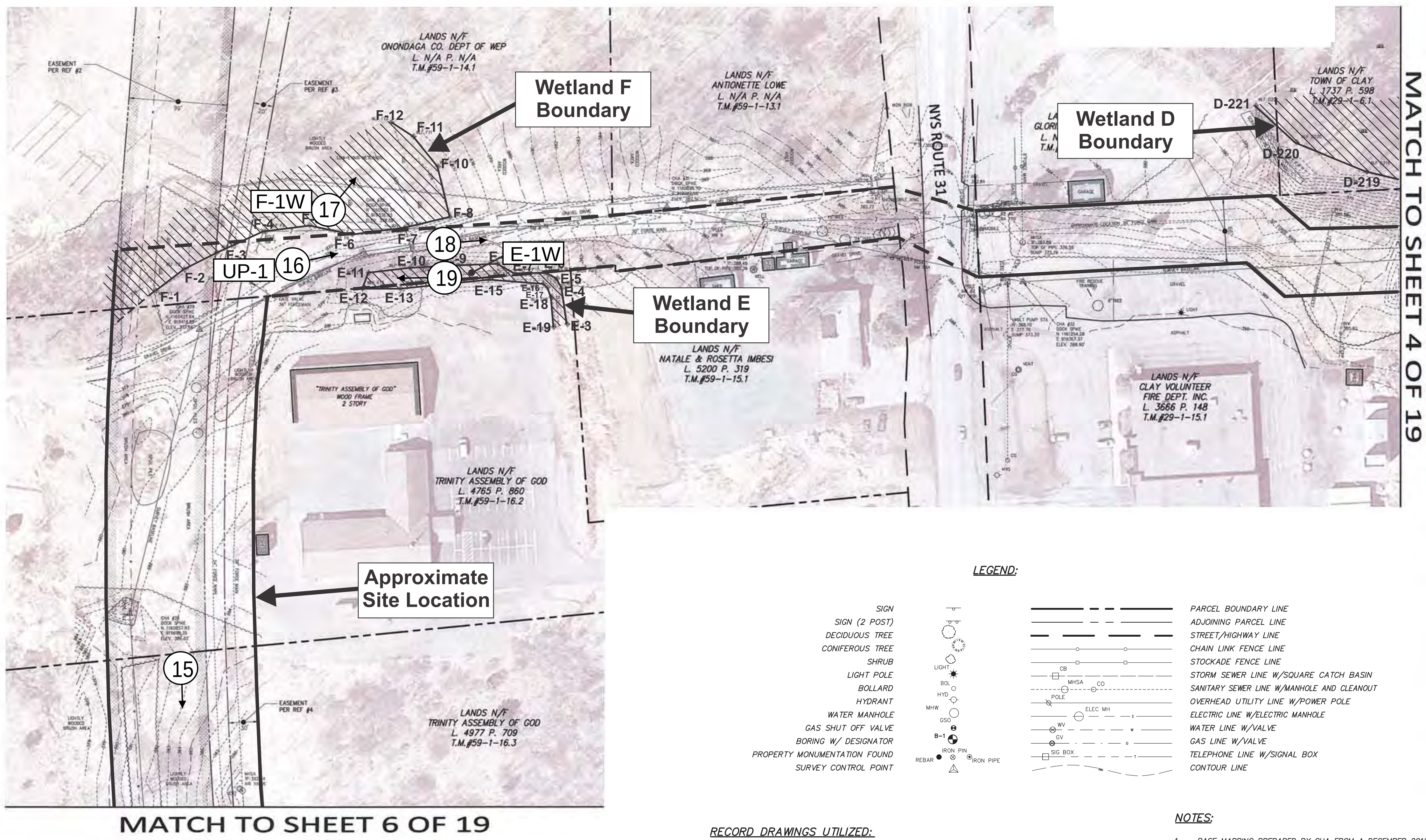
Base Map Provided by CHA Companies

Figure 10-4.

Wetland Survey Map with Plot and Photograph Locations

Sheet 4 of 19

TES File: IDA-2033A\2033A-PlotPhoto4.cdr\6-26-2013



LEGEND:

SIGN	PARCEL BOUNDARY LINE
SIGN (2 POST)	ADJOINING PARCEL LINE
DECIDUOUS TREE	STREET/HIGHWAY LINE
CONIFEROUS TREE	CHAIN LINK FENCE LINE
SHRUB	STOCKADE FENCE LINE
LIGHT POLE	STORM SEWER LINE W/SQUARE CATCH BASIN
BOLLARD	SANITARY SEWER LINE W/MANHOLE AND CLEANOUT
HYDRANT	OVERHEAD UTILITY LINE W/POWER POLE
WATER MANHOLE	ELECTRIC LINE W/ELECTRIC MANHOLE
GAS SHUT OFF VALVE	WATER LINE W/VALVE
BORING W/ DESIGNATOR	GAS LINE W/VALVE
PROPERTY MONUMENTATION FOUND	TELEPHONE LINE W/SIGNAL BOX
SURVEY CONTROL POINT	CONTOUR LINE

RECORD DRAWINGS UTILIZED:

1. OAK ORCHARD FORCE MAIN & EFFLUENT SEWER, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.216, DATED FEBRUARY 7, 1975.
2. PLAN AND PROFILE RECORD DRAWINGS FOR METRO WATER BOARD'S 54" WATER TRANSMISSION MAIN ALONG 99-FOOT WIDE EASEMENT, PREPARED BY, O'BRIEN & GERE ENGINEERS, INC., FILE No. 446.23, LAST DATED JULY 7, 1965.
3. PLAN AND PROFILE DESIGN DRAWINGS FOR ONONDAGA COUNTY'S CLAY-CICERO 24" EFFLUENT FORCE MAIN, PREPARED O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.138, DATED SEPTEMBER 27, 1965.
4. PLAN AND PROFILE DESIGN DRAWING S FOR ONONDAGA COUNTY'S DAVIS ROAD 36" FORCE MAIN, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.243, DATED JUNE 27, 1975.

NOTES:

1. BASE MAPPING PREPARED BY CHA FROM A DECEMBER 2012 THROUGH JANUARY 2013 FIELD SURVEY (ROCH. FB.150, P.32).
2. NORTH ORIENTATION AND CONTOURS ARE BASED ON GPS ESTABLISHED AT THE TIME OF THE SURVEY. REFERENCED TO NAD 83(CORS96), NYS-CENTRAL (US FEET) AND NAVD 88 (US FEET) USING NYSDOT RTN SYSTEM.
3. UNDERGROUND UTILITIES ARE SHOWN FROM FIELD LOCATION IF POSSIBLE, OTHERS ARE SHOWN FROM RECORD DATA. THEIR EXACT LOCATION MAY DIFFER FROM THAT AS SHOWN AND OTHERS MAY EXIST.
4. SUBJECT TO ANY RIGHTS, EASEMENTS, COVENANTS OR RESTRICTIONS OF RECORD.
5. NO BOUNDARY TASKS WERE PERFORMED DURING THIS SURVEY.
6. 4"-36" OF SNOW COVER WITH UP TO 10' HIGH SNOW PILES EXISTED DURING PORTIONS OF FIELD SURVEY.

LEGEND

F-1W Sample Plot Location

15 Photo Location and Direction

NORTH

0' 60' 120'

APPROXIMATE SCALE IN FEET

Figure Prepared by Terrestrial Environmental Specialists, Inc.

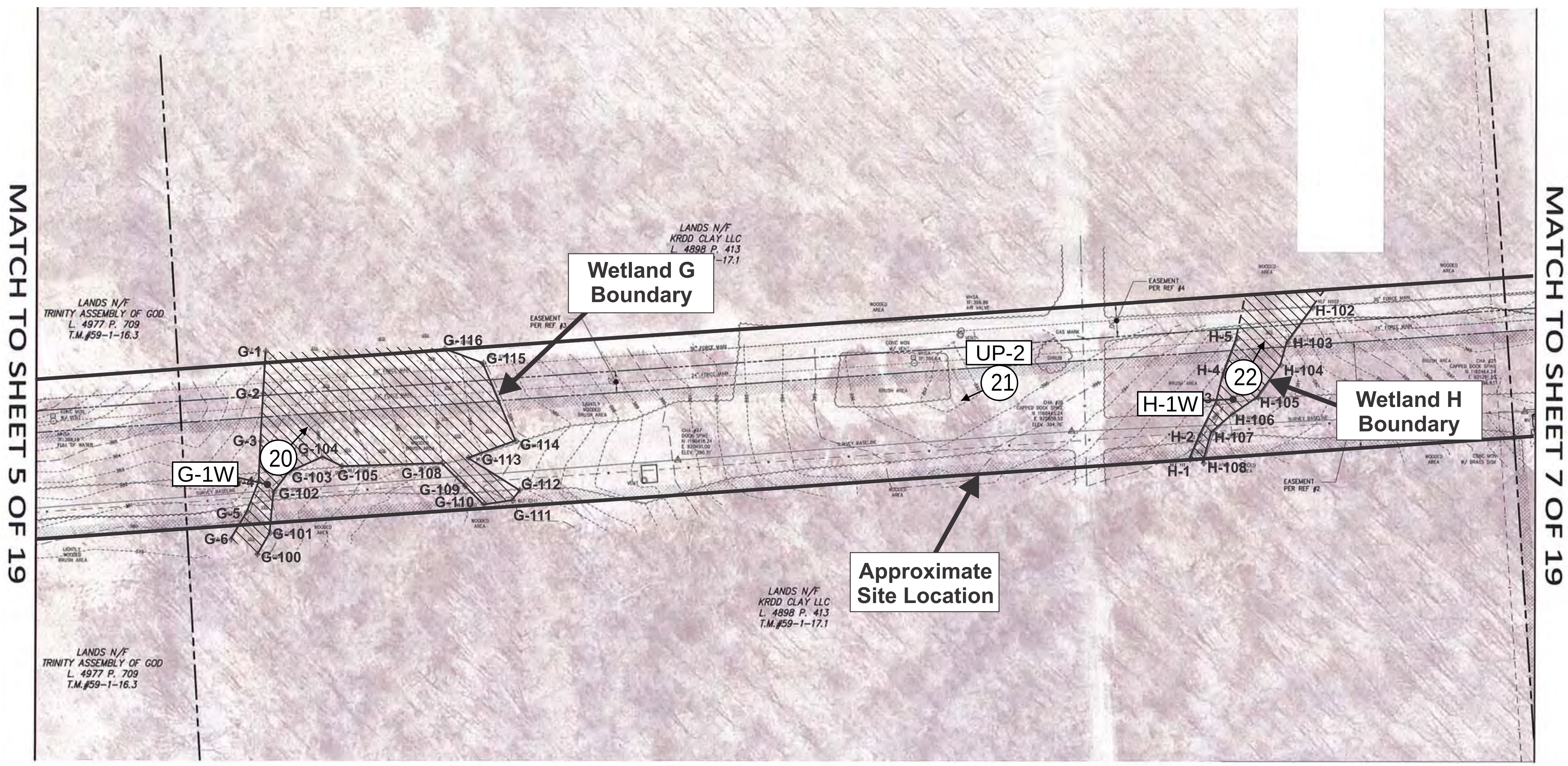
Base Map Provided by CHA Companies

Figure 10-5.

Wetland Survey Map with Plot and Photograph Locations

Sheet 5 of 19

TES File: IDA-2033A\2033A-PlotPhoto5.cdr\6-25-2013



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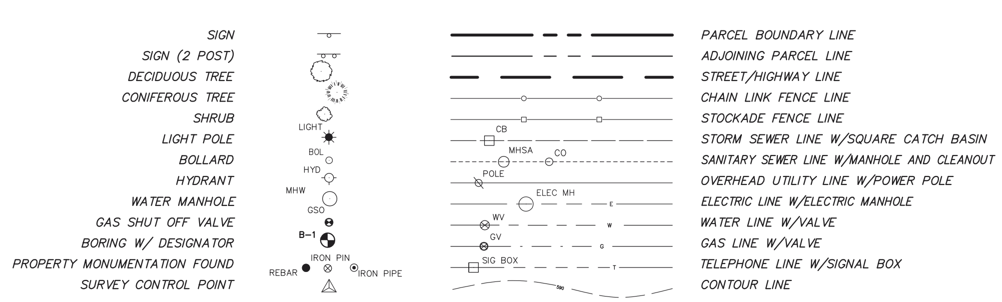

RECORD DRAWINGS UTILIZED:

1. OAK ORCHARD FORCE MAIN & EFFLUENT SEWER, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.216, DATED FEBRUARY 7, 1975.
2. PLAN AND PROFILE RECORD DRAWINGS FOR METRO WATER BOARD'S 54" WATER TRANSMISSION MAIN ALONG 99-FOOT WIDE EASEMENT, PREPARED BY, O'BRIEN & GERE ENGINEERS, INC., FILE No. 446.23, LAST DATED JULY 7, 1965.
3. PLAN AND PROFILE DESIGN DRAWINGS FOR ONONDAGA COUNTY'S CLAY-CICERO 24" EFFLUENT FORCE MAIN, PREPARED O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.138, DATED SEPTEMBER 27, 1965.
4. PLAN AND PROFILE DESIGN DRAWING S FOR ONONDAGA COUNTY'S DAVIS ROAD 36" FORCE MAIN, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.243, DATED JUNE 27, 1975.

NOTES:

1. BASE MAPPING PREPARED BY CHA FROM A DECEMBER 2012 THROUGH JANUARY 2013 FIELD SURVEY (ROCH. FB.150, P.32).
2. NORTH ORIENTATION AND CONTOURS ARE BASED ON GPS ESTABLISHED AT THE TIME OF THE SURVEY. REFERENCED TO NAD 83(CORS96), NYS-CENTRAL (US FEET) AND NAVD 88 (US FEET) USING NYSDOT RTN SYSTEM.
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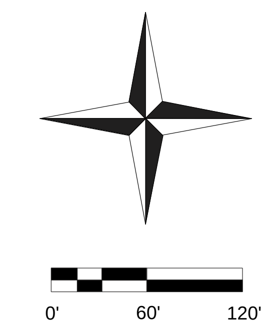
5. NO BOUNDARY TASKS WERE PERFORMED DURING THIS SURVEY.
6. 4"-36" OF SNOW COVER WITH UP TO 10' HIGH SNOW PILES EXISTED DURING PORTIONS OF FIELD SURVEY.

LEGEND

G-1W Sample Plot Location

20 Photo Location and Direction



APPROXIMATE SCALE IN FEET

Figure Prepared by
Terrestrial Environmental Specialists, Inc.

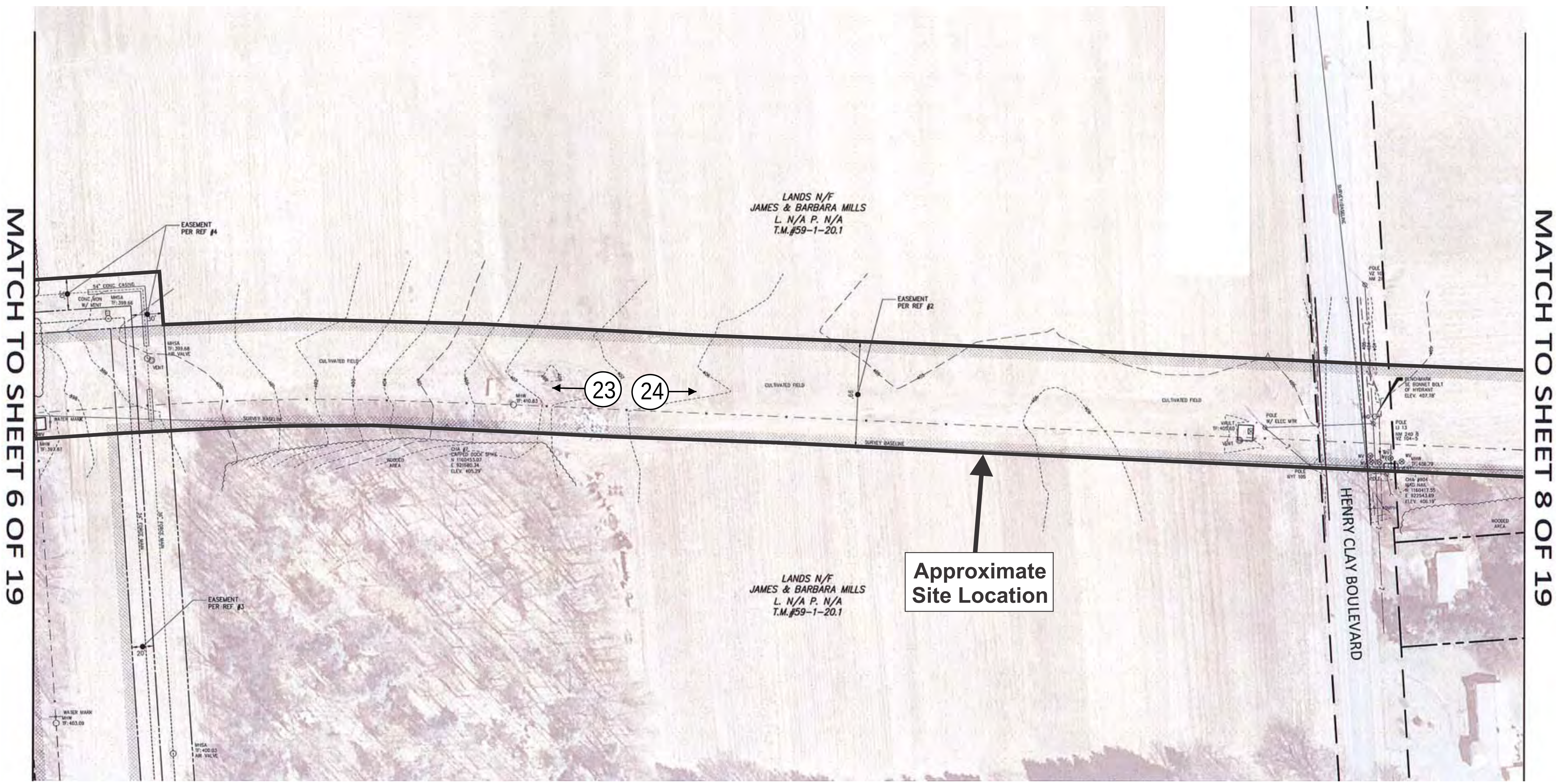
Base Map Provided by
CHA Companies

Figure 10-6.

Wetland Survey Map with Plot and Photograph Locations

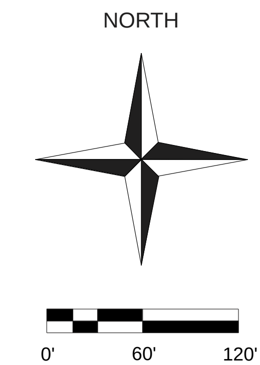
Sheet 6 of 19

TES File: IDA-2033A\2033A-PlotPhoto6.cdr\6-25-2013



LEGEND

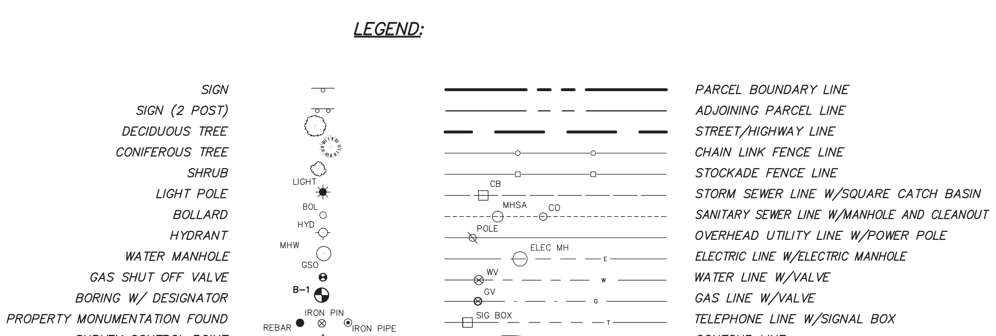
23 → Photo Location and Direction



APPROXIMATE SCALE IN FEET

Figure Prepared by
Terrestrial Environmental
Specialists, Inc.

Base Map Provided by
CHA Companies



RECORD DRAWINGS UTILIZED:

1. OAK ORCHARD FORCE MAIN & EFFLUENT SEWER, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.216, DATED FEBRUARY 7, 1975.
2. PLAN AND PROFILE RECORD DRAWINGS FOR METRO WATER BOARD'S 54" WATER TRANSMISSION MAIN ALONG 99-FOOT WIDE EASEMENT, PREPARED BY, O'BRIEN & GERE ENGINEERS, INC., FILE No. 446.23, LAST DATED JULY 7, 1965.
3. PLAN AND PROFILE DESIGN DRAWINGS FOR ONONDAGA COUNTY'S CLAY-CICERO 24" EFFLUENT FORCE MAIN, PREPARED O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.138, DATED SEPTEMBER 27, 1965.
4. PLAN AND PROFILE DESIGN DRAWING S FOR ONONDAGA COUNTY'S DAVIS ROAD 36" FORCE MAIN, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.243, DATED JUNE 27, 1975.

NOTES:

1. BASE MAPPING PREPARED BY CHA FROM A DECEMBER 2012 THROUGH JANUARY 2013 FIELD SURVEY (ROCH. FB.150, P.32).
2. NORTH ORIENTATION AND CONTOURS ARE BASED ON GPS ESTABLISHED AT THE TIME OF THE SURVEY. REFERENCED TO NAD 83(CORS96), NYS-CENTRAL (US FEET) AND NAVD 88 (US FEET) USING NYSDOT RTN SYSTEM.
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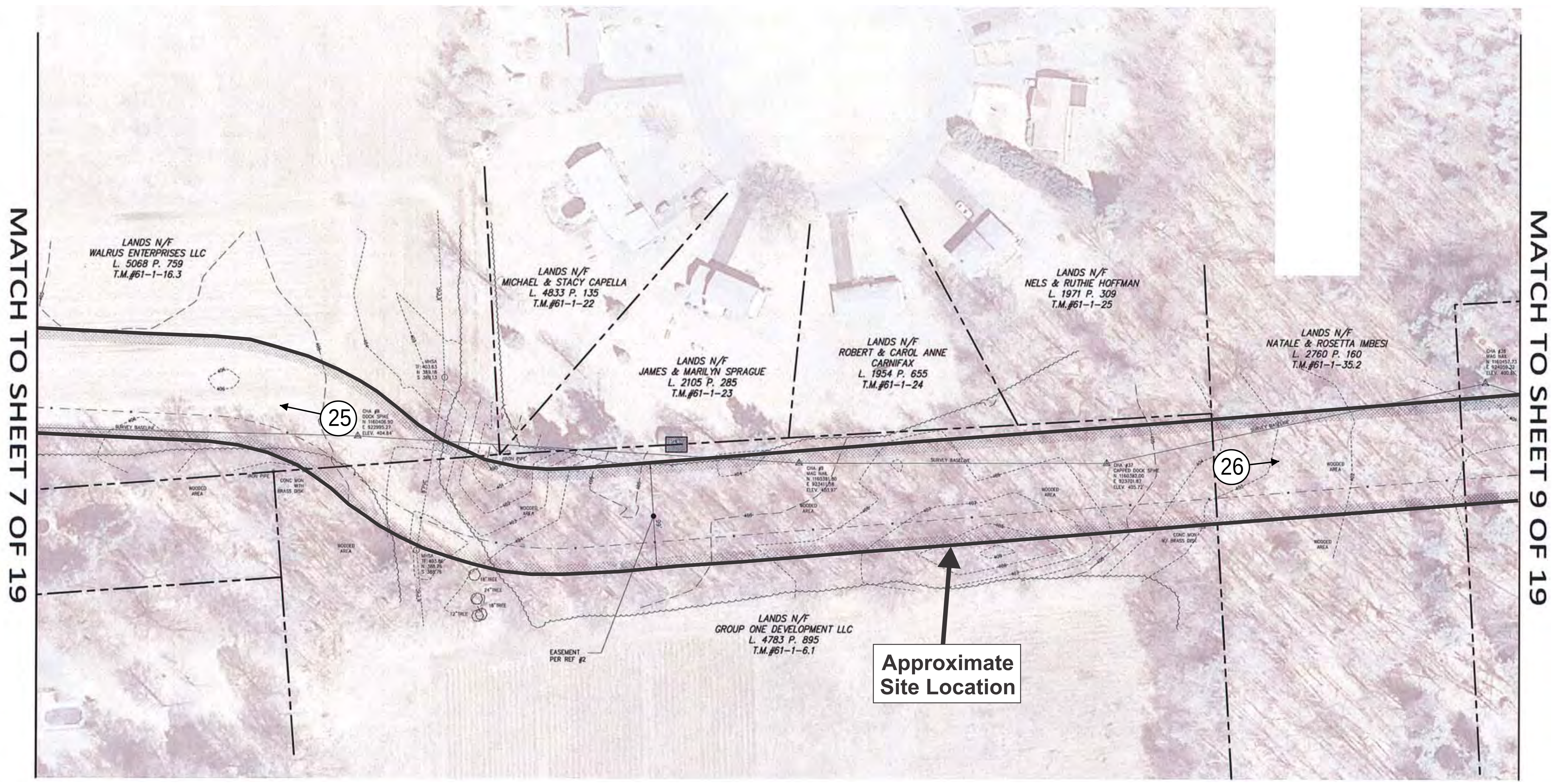
4. SUBJECT TO ANY RIGHTS, EASEMENTS, COVENANTS OR RESTRICTIONS OF RECORD.
5. NO BOUNDARY TASKS WERE PERFORMED DURING THIS SURVEY.
6. 4"-36" OF SNOW COVER WITH UP TO 10' HIGH SNOW PILES EXISTED DURING PORTIONS OF FIELD SURVEY.

Figure 10-7.

Wetland Survey Map with Plot and Photograph Locations

Sheet 7 of 19

TES File: IDA-2033A\2033A-PlotPhoto7.cdr\6-25-2013



LEGEND:

SIGN		PARCEL BOUNDARY LINE
SIGN (2 POST)		ADJOINING PARCEL LINE
DECIDUOUS TREE		STREET/HIGHWAY LINE
CONIFEROUS TREE		CHAIN LINK FENCE LINE
SHRUB		STOCKADE FENCE LINE
LIGHT POLE	LIGHT / CB	STORM SEWER LINE W/SQUARE CATCH BASIN
BOLLARD	BOL / MHSA / CO	SANITARY SEWER LINE W/MANHOLE AND CLEANOUT
HYDRANT	HYD / POLE	OVERHEAD UTILITY LINE W/POWER POLE
WATER MANHOLE	MHW / ELEC MH	ELECTRIC LINE W/ELECTRIC MANHOLE
GAS SHUT OFF VALVE	GSO / WV	WATER LINE W/VALVE
BORING W/ DESIGNATOR	B-1 / GV	GAS LINE W/VALVE
PROPERTY MONUMENTATION FOUND	REBAR / IRON PIN / IRON PIPE / SIG BOX	TELEPHONE LINE W/SIGNAL BOX
SURVEY CONTROL POINT		CONTOUR LINE

RECORD DRAWINGS UTILIZED:

1. OAK ORCHARD FORCE MAIN & EFFLUENT SEWER, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.216, DATED FEBRUARY 7, 1975.
2. PLAN AND PROFILE RECORD DRAWINGS FOR METRO WATER BOARD'S 54" WATER TRANSMISSION MAIN ALONG 99-FOOT WIDE EASEMENT, PREPARED BY, O'BRIEN & GERE ENGINEERS, INC., FILE No. 446.23, LAST DATED JULY 7, 1965.
3. PLAN AND PROFILE DESIGN DRAWINGS FOR ONONDAGA COUNTY'S CLAY-CICERO 24" EFFLUENT FORCE MAIN, PREPARED O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.138, DATED SEPTEMBER 27, 1965.
4. PLAN AND PROFILE DESIGN DRAWING S FOR ONONDAGA COUNTY'S DAVIS ROAD 36" FORCE MAIN, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.243, DATED JUNE 27, 1975.

NOTES:

1. BASE MAPPING PREPARED BY CHA FROM A DECEMBER 2012 THROUGH JANUARY 2013 FIELD SURVEY (ROCH. FB.150, P.32).
2. NORTH ORIENTATION AND CONTOURS ARE BASED ON GPS ESTABLISHED AT THE TIME OF THE SURVEY. REFERENCED TO NAD 83(CORS96), NYS-CENTRAL (US FEET) AND NAVD 88 (US FEET) USING NYSDOT RTN SYSTEM.
3. UNDERGROUND UTILITIES ARE SHOWN FROM FIELD LOCATION IF POSSIBLE, OTHERS ARE SHOWN FROM RECORD DATA. THEIR EXACT LOCATION MAY DIFFER FROM THAT AS SHOWN AND OTHERS MAY EXIST.
4. SUBJECT TO ANY RIGHTS, EASEMENTS, COVENANTS OR RESTRICTIONS OF RECORD.
5. NO BOUNDARY TASKS WERE PERFORMED DURING THIS SURVEY.
6. 4"-36" OF SNOW COVER WITH UP TO 10' HIGH SNOW PILES EXISTED DURING PORTIONS OF FIELD SURVEY.

LEGEND

25 Photo Location and Direction

NORTH

0' 60' 120'

APPROXIMATE SCALE IN FEET

Figure Prepared by Terrestrial Environmental Specialists, Inc.

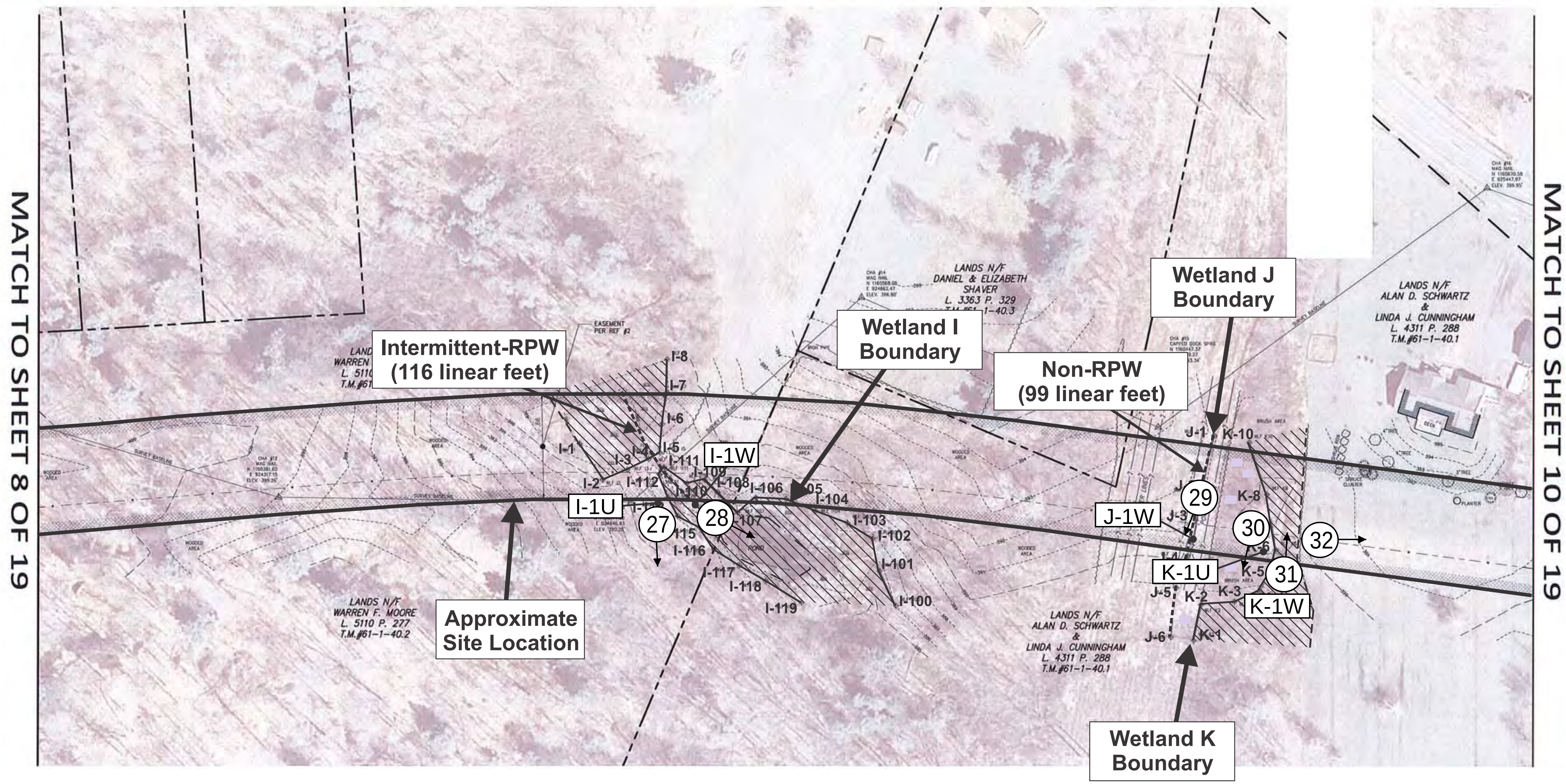
Base Map Provided by CHA Companies

Figure 10-8.

Wetland Survey Map with Plot and Photograph Locations

Sheet 8 of 19

TES File: IDA-2033A\2033A-PlotPhoto8.cdr\6-25-2013



LEGEND

I-1W Sample Plot Location

27 Photo Location and Direction

NORTH

0' 60' 120'

APPROXIMATE SCALE IN FEET

Figure Prepared by Terrestrial Environmental Specialists, Inc.

Base Map Provided by CHA Companies

Figure 10-9.

Wetland Survey Map with Plot and Photograph Locations

Sheet 9 of 19

LEGEND:

- SIGN
- SIGN (2 POST)
- DECIDUOUS TREE
- CONIFEROUS TREE
- SHRUB
- LIGHT POLE (LIGHT)
- BOLLARD (BOL)
- HYDRANT (HYD)
- WATER MANHOLE (MHW)
- GAS SHUT OFF VALVE (GSO)
- BORING W/ DESIGNATOR (B-1)
- PROPERTY MONUMENTATION FOUND (REBAR, IRON PIN, IRON PIPE)
- SURVEY CONTROL POINT

- PARCEL BOUNDARY LINE
- ADJOINING PARCEL LINE
- STREET/HIGHWAY LINE
- CHAIN LINK FENCE LINE
- STOCKADE FENCE LINE
- STORM SEWER LINE W/SQUARE CATCH BASIN (CB)
- SANITARY SEWER LINE W/MANHOLE AND CLEANOUT (MHSA, CO)
- OVERHEAD UTILITY LINE W/POWER POLE (POLE)
- ELECTRIC LINE W/ELECTRIC MANHOLE (ELEC MH)
- WATER LINE W/VALVE (WV)
- GAS LINE W/VALVE (GV)
- TELEPHONE LINE W/SIGNAL BOX (SIG BOX)
- CONTOUR LINE

RECORD DRAWINGS UTILIZED:

1. OAK ORCHARD FORCE MAIN & EFFLUENT SEWER, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.216, DATED FEBRUARY 7, 1975.
2. PLAN AND PROFILE RECORD DRAWINGS FOR METRO WATER BOARD'S 54" WATER TRANSMISSION MAIN ALONG 99-FOOT WIDE EASEMENT, PREPARED BY, O'BRIEN & GERE ENGINEERS, INC., FILE No. 446.23, LAST DATED JULY 7, 1965.
3. PLAN AND PROFILE DESIGN DRAWINGS FOR ONONDAGA COUNTY'S CLAY-CICERO 24" EFFLUENT FORCE MAIN, PREPARED O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.138, DATED SEPTEMBER 27, 1965.
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5. NO BOUNDARY TASKS WERE PERFORMED DURING THIS SURVEY.
6. 4"-36" OF SNOW COVER WITH UP TO 10' HIGH SNOW PILES EXISTED DURING PORTIONS OF FIELD SURVEY.

TES File: IDA-2033A\2033A-PlotPhoto9.cdr\6-26-2013

LEGEND:

- SIGN
- SIGN (2 POST)
- DECIDUOUS TREE
- CONIFEROUS TREE
- SHRUB
- LIGHT POLE (LIGHT)
- BOLLARD (BOL)
- HYDRANT (HYD)
- WATER MANHOLE (MHW)
- GAS SHUT OFF VALVE (GSO)
- BORING W/ DESIGNATOR (B-1)
- PROPERTY MONUMENTATION FOUND (REBAR, IRON PIN, IRON PIPE)
- SURVEY CONTROL POINT

- PARCEL BOUNDARY LINE
- ADJOINING PARCEL LINE
- STREET/HIGHWAY LINE
- CHAIN LINK FENCE LINE
- STOCKADE FENCE LINE
- STORM SEWER LINE W/SQUARE CATCH BASIN (CB)
- SANITARY SEWER LINE W/MANHOLE AND CLEANOUT (MHSA, CO)
- OVERHEAD UTILITY LINE W/POWER POLE (POLE)
- ELECTRIC LINE W/ELECTRIC MANHOLE (ELEC MH)
- WATER LINE W/VALVE (WV)
- GAS LINE W/VALVE (GV)
- TELEPHONE LINE W/SIGNAL BOX (SIG BOX)
- CONTOUR LINE

RECORD DRAWINGS UTILIZED:

1. OAK ORCHARD FORCE MAIN & EFFLUENT SEWER, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.216, DATED FEBRUARY 7, 1975.
2. PLAN AND PROFILE RECORD DRAWINGS FOR METRO WATER BOARD'S 54" WATER TRANSMISSION MAIN ALONG 99-FOOT WIDE EASEMENT, PREPARED BY, O'BRIEN & GERE ENGINEERS, INC., FILE No. 446.23, LAST DATED JULY 7, 1965.
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NOTES:

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5. NO BOUNDARY TASKS WERE PERFORMED DURING THIS SURVEY.
6. 4"-36" OF SNOW COVER WITH UP TO 10' HIGH SNOW PILES EXISTED DURING PORTIONS OF FIELD SURVEY.

LEGEND

33 → Photo Location and Direction

NORTH

0' 60' 120'

APPROXIMATE SCALE IN FEET

Figure Prepared by Terrestrial Environmental Specialists, Inc.

Base Map Provided by CHA Companies

Figure 10-10.

Wetland Survey Map with Plot and Photograph Locations

Sheet 10 of 19

TES File: IDA-2033A\2033A-PlotPhoto10.cdr\6-25-2013

LEGEND:

SIGN	PARCEL BOUNDARY LINE
SIGN (2 POST)	ADJOINING PARCEL LINE
DECIDUOUS TREE	STREET/HIGHWAY LINE
CONIFEROUS TREE	CHAIN LINK FENCE LINE
SHRUB	STOCKADE FENCE LINE
LIGHT POLE (LIGHT)	STORM SEWER LINE W/SQUARE CATCH BASIN (CB)
BOLLARD (BOL)	SANITARY SEWER LINE W/MANHOLE AND CLEANOUT (MHSA, CO)
HYDRANT (HYD)	OVERHEAD UTILITY LINE W/POWER POLE (POLE)
WATER MANHOLE (MHW)	ELECTRIC LINE W/ELECTRIC MANHOLE (ELEC MH)
GAS SHUT OFF VALVE (GSO)	WATER LINE W/VALVE (WV)
BORING W/ DESIGNATOR (B-1)	GAS LINE W/VALVE (GV)
PROPERTY MONUMENTATION FOUND (REBAR, IRON PIN, IRON PIPE)	TELEPHONE LINE W/SIGNAL BOX (SIG BOX)
SURVEY CONTROL POINT	CONTOUR LINE

RECORD DRAWINGS UTILIZED:

1. OAK ORCHARD FORCE MAIN & EFFLUENT SEWER, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.216, DATED FEBRUARY 7, 1975.
2. PLAN AND PROFILE RECORD DRAWINGS FOR METRO WATER BOARD'S 54" WATER TRANSMISSION MAIN ALONG 99-FOOT WIDE EASEMENT, PREPARED BY, O'BRIEN & GERE ENGINEERS, INC., FILE No. 446.23, LAST DATED JULY 7, 1965.
3. PLAN AND PROFILE DESIGN DRAWINGS FOR ONONDAGA COUNTY'S CLAY-CICERO 24" EFFLUENT FORCE MAIN, PREPARED O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.138, DATED SEPTEMBER 27, 1965.
4. PLAN AND PROFILE DESIGN DRAWING S FOR ONONDAGA COUNTY'S DAVIS ROAD 36" FORCE MAIN, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.243, DATED JUNE 27, 1975.

NOTES:

1. BASE MAPPING PREPARED BY CHA FROM A DECEMBER 2012 THROUGH JANUARY 2013 FIELD SURVEY (ROCH. FB.150, P.32).
2. NORTH ORIENTATION AND CONTOURS ARE BASED ON GPS ESTABLISHED AT THE TIME OF THE SURVEY. REFERENCED TO NAD 83(CORS96), NYS-CENTRAL (US FEET) AND NAVD 88 (US FEET) USING NYSDOT RTN SYSTEM.
3. UNDERGROUND UTILITIES ARE SHOWN FROM FIELD LOCATION IF POSSIBLE, OTHERS ARE SHOWN FROM RECORD DATA. THEIR EXACT LOCATION MAY DIFFER FROM THAT AS SHOWN AND OTHERS MAY EXIST.
4. SUBJECT TO ANY RIGHTS, EASEMENTS, COVENANTS OR RESTRICTIONS OF RECORD.
5. NO BOUNDARY TASKS WERE PERFORMED DURING THIS SURVEY.
6. 4"-36" OF SNOW COVER WITH UP TO 10' HIGH SNOW PILES EXISTED DURING PORTIONS OF FIELD SURVEY.

LEGEND

34 Photo Location and Direction

NORTH

0' 60' 120'

APPROXIMATE SCALE IN FEET

Figure Prepared by Terrestrial Environmental Specialists, Inc.

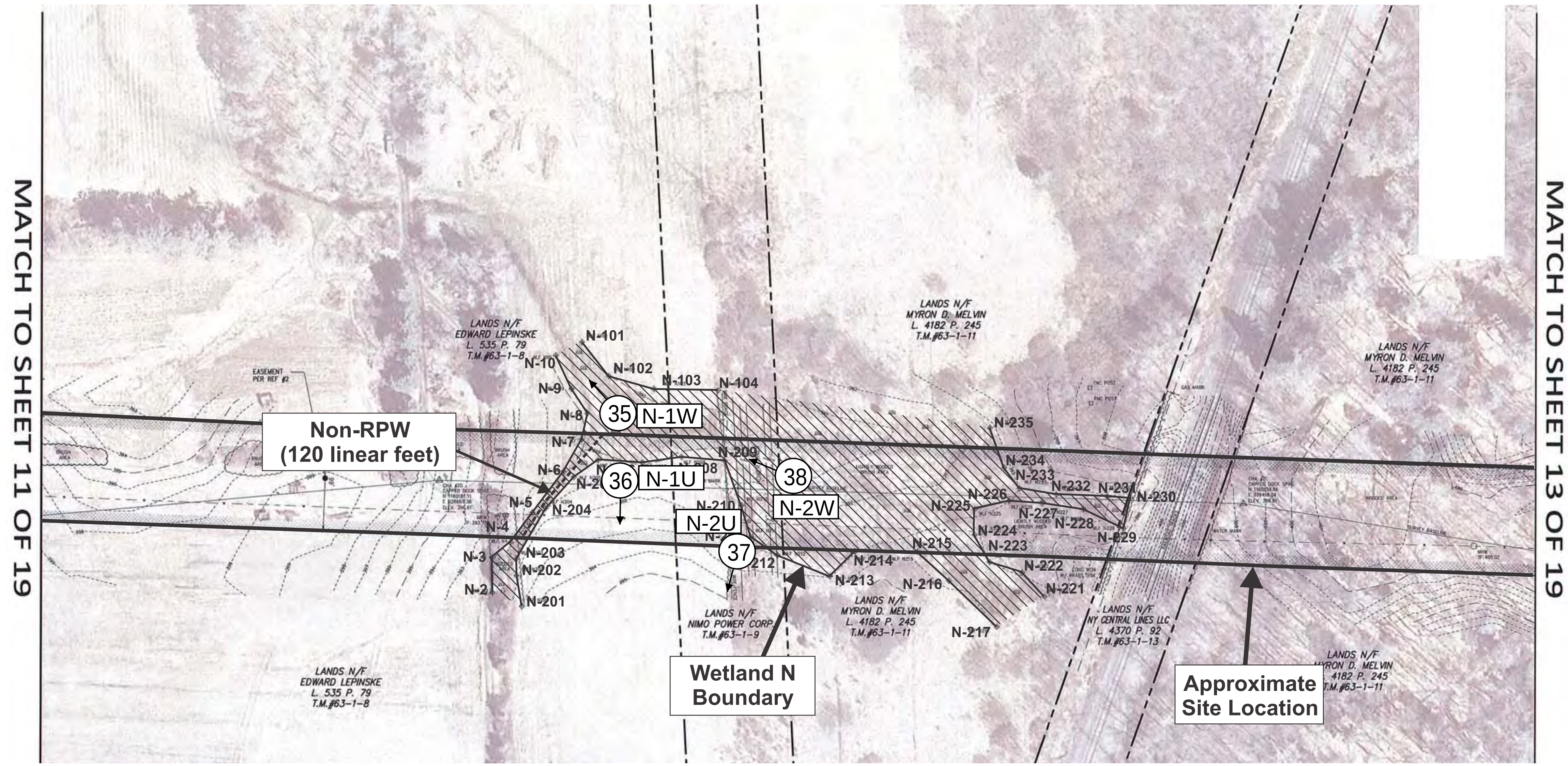
Base Map Provided by CHA Companies

Figure 10-11.

Wetland Survey Map with Plot and Photograph Locations

Sheet 11 of 19

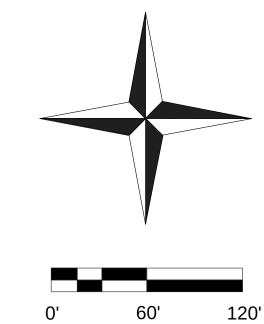
TES File: IDA-2033A\2033A-PlotPhoto11.cdr\6-25-2013



LEGEND

N-1W Sample Plot Location

35 Photo Location and Direction



APPROXIMATE SCALE IN FEET

Figure Prepared by Terrestrial Environmental Specialists, Inc.

Base Map Provided by CHA Companies

Figure 10-12.

Wetland Survey Map with Plot and Photograph Locations

Sheet 12 of 19

LEGEND:

SIGN
SIGN (2 POST)
DECIDUOUS TREE
CONIFEROUS TREE
SHRUB
LIGHT POLE (LIGHT)
BOLLARD (BOL)
HYDRANT (HYD)
WATER MANHOLE (MHW)
GAS SHUT OFF VALVE (GSO)
BORING W/ DESIGNATOR (B-1)
PROPERTY MONUMENTATION FOUND (REBAR, IRON PIN, IRON PIPE)
SURVEY CONTROL POINT

PARCEL BOUNDARY LINE
ADJOINING PARCEL LINE
STREET/HIGHWAY LINE
CHAIN LINK FENCE LINE
STOCKADE FENCE LINE
STORM SEWER LINE W/SQUARE CATCH BASIN (CB)
SANITARY SEWER LINE W/MANHOLE AND CLEANOUT (MHSA, CO)
OVERHEAD UTILITY LINE W/POWER POLE (POLE)
ELECTRIC LINE W/ELECTRIC MANHOLE (ELEC MH)
WATER LINE W/VALVE (WV)
GAS LINE W/VALVE (GV)
TELEPHONE LINE W/SIGNAL BOX (SIG BOX)
CONTOUR LINE

RECORD DRAWINGS UTILIZED:

1. OAK ORCHARD FORCE MAIN & EFFLUENT SEWER, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.216, DATED FEBRUARY 7, 1975.
2. PLAN AND PROFILE RECORD DRAWINGS FOR METRO WATER BOARD'S 54" WATER TRANSMISSION MAIN ALONG 99-FOOT WIDE EASEMENT, PREPARED BY, O'BRIEN & GERE ENGINEERS, INC., FILE No. 446.23, LAST DATED JULY 7, 1965.
3. PLAN AND PROFILE DESIGN DRAWINGS FOR ONONDAGA COUNTY'S CLAY-CICERO 24" EFFLUENT FORCE MAIN, PREPARED O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.138, DATED SEPTEMBER 27, 1965.
4. PLAN AND PROFILE DESIGN DRAWING S FOR ONONDAGA COUNTY'S DAVIS ROAD 36" FORCE MAIN, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.243, DATED JUNE 27, 1975.

NOTES:

1. BASE MAPPING PREPARED BY CHA FROM A DECEMBER 2012 THROUGH JANUARY 2013 FIELD SURVEY (ROCH. FB.150, P.32).
2. NORTH ORIENTATION AND CONTOURS ARE BASED ON GPS ESTABLISHED AT THE TIME OF THE SURVEY. REFERENCED TO NAD 83(CORS96), NYS-CENTRAL (US FEET) AND NAVD 88 (US FEET) USING NYSDOT RTN SYSTEM.
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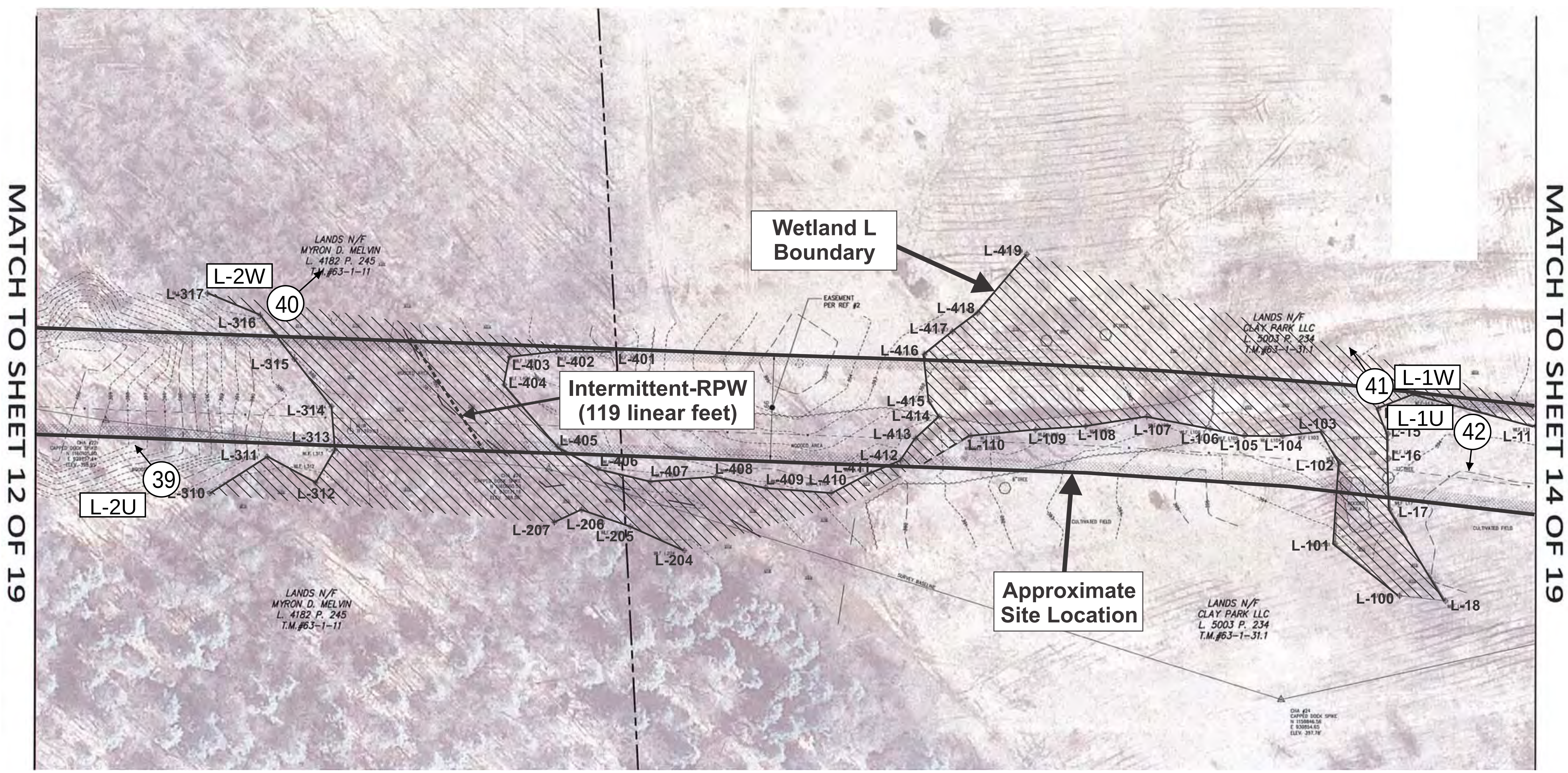
4. SUBJECT TO ANY RIGHTS, EASEMENTS, COVENANTS OR RESTRICTIONS OF RECORD.
5. NO BOUNDARY TASKS WERE PERFORMED DURING THIS SURVEY.
6. 4"-36" OF SNOW COVER WITH UP TO 10' HIGH SNOW PILES EXISTED DURING PORTIONS OF FIELD SURVEY.



LEGEND:

SIGN	PARCEL BOUNDARY LINE
SIGN (2 POST)	ADJOINING PARCEL LINE
DECIDUOUS TREE	STREET/HIGHWAY LINE
CONIFEROUS TREE	CHAIN LINK FENCE LINE
SHRUB	STOCKADE FENCE LINE
LIGHT POLE (LIGHT)	STORM SEWER LINE W/SQUARE CATCH BASIN (CB)
BOLLARD (BOL)	SANITARY SEWER LINE W/MANHOLE AND CLEANOUT (MHSA, CO)
HYDRANT (HYD)	OVERHEAD UTILITY LINE W/POWER POLE (POLE)
WATER MANHOLE (MHW)	ELECTRIC LINE W/ELECTRIC MANHOLE (ELEC MH)
GAS SHUT OFF VALVE (GSO)	WATER LINE W/VALVE (WV)
BORING W/ DESIGNATOR (B-1)	GAS LINE W/VALVE (GV)
PROPERTY MONUMENTATION FOUND (REBAR, IRON PIN, IRON PIPE)	TELEPHONE LINE W/SIGNAL BOX (SIG BOX)
SURVEY CONTROL POINT	CONTOUR LINE

RECORD DRAWINGS UTILIZED:

1. OAK ORCHARD FORCE MAIN & EFFLUENT SEWER, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.216, DATED FEBRUARY 7, 1975.
2. PLAN AND PROFILE RECORD DRAWINGS FOR METRO WATER BOARD'S 54" WATER TRANSMISSION MAIN ALONG 99-FOOT WIDE EASEMENT, PREPARED BY, O'BRIEN & GERE ENGINEERS, INC., FILE No. 446.23, LAST DATED JULY 7, 1965.
3. PLAN AND PROFILE DESIGN DRAWINGS FOR ONONDAGA COUNTY'S CLAY-CICERO 24" EFFLUENT FORCE MAIN, PREPARED O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.138, DATED SEPTEMBER 27, 1965.
4. PLAN AND PROFILE DESIGN DRAWING S FOR ONONDAGA COUNTY'S DAVIS ROAD 36" FORCE MAIN, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.243, DATED JUNE 27, 1975.

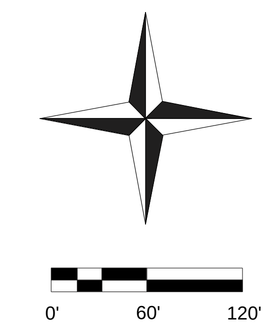
NOTES:

1. BASE MAPPING PREPARED BY CHA FROM A DECEMBER 2012 THROUGH JANUARY 2013 FIELD SURVEY (ROCH. FB.150, P.32).
2. NORTH ORIENTATION AND CONTOURS ARE BASED ON GPS ESTABLISHED AT THE TIME OF THE SURVEY. REFERENCED TO NAD 83(CORS96), NYS-CENTRAL (US FEET) AND NAVD 88 (US FEET) USING NYSDOT RTN SYSTEM.
3. UNDERGROUND UTILITIES ARE SHOWN FROM FIELD LOCATION IF POSSIBLE, OTHERS ARE SHOWN FROM RECORD DATA. THEIR EXACT LOCATION MAY DIFFER FROM THAT AS SHOWN AND OTHERS MAY EXIST.
4. SUBJECT TO ANY RIGHTS, EASEMENTS, COVENANTS OR RESTRICTIONS OF RECORD.
5. NO BOUNDARY TASKS WERE PERFORMED DURING THIS SURVEY.
6. 4"-36" OF SNOW COVER WITH UP TO 10' HIGH SNOW PILES EXISTED DURING PORTIONS OF FIELD SURVEY.

LEGEND

L-1W Sample Plot Location

40 Photo Location and Direction



APPROXIMATE SCALE IN FEET

Figure Prepared by Terrestrial Environmental Specialists, Inc.

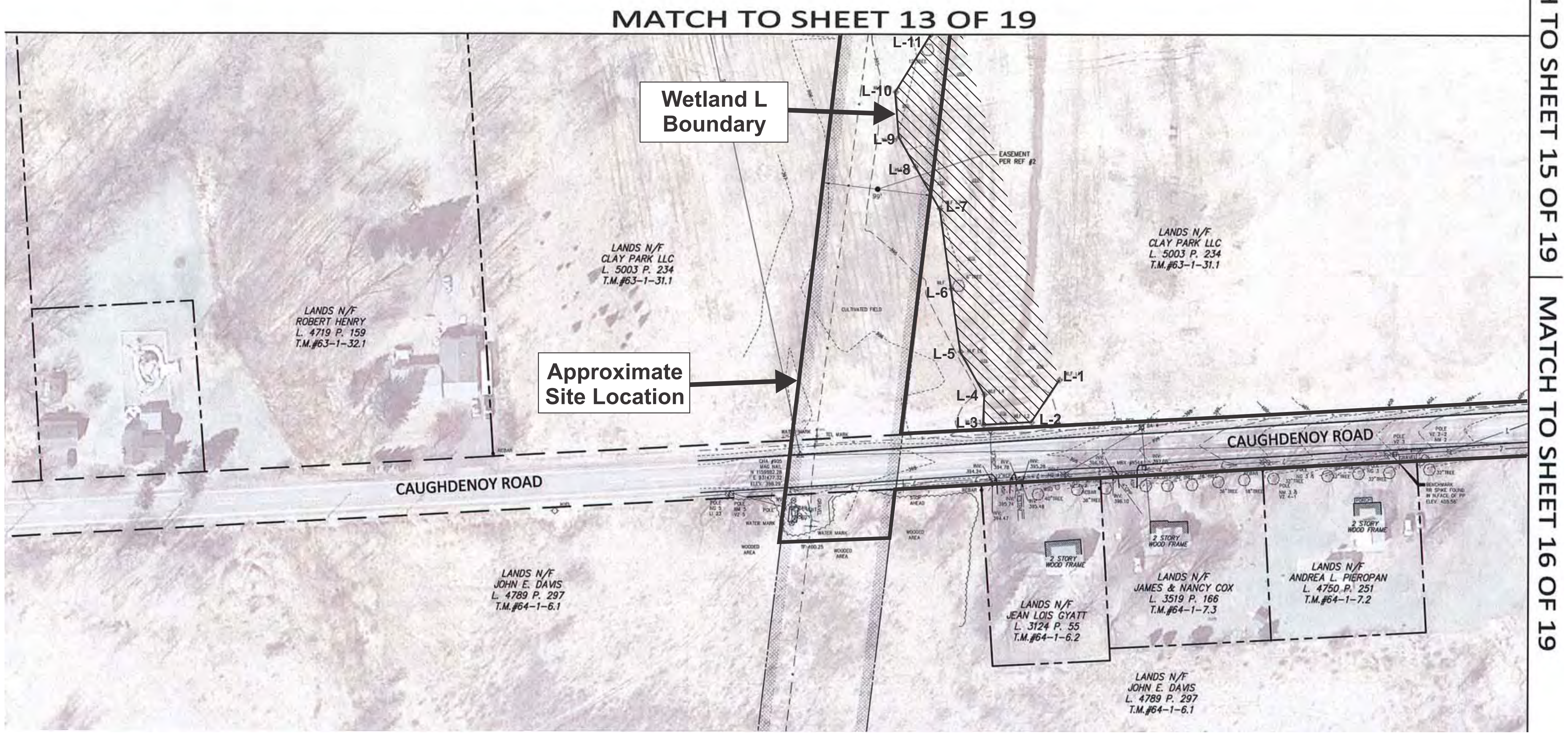
Base Map Provided by CHA Companies

Figure 10-13.

Wetland Survey Map with Plot and Photograph Locations

Sheet 13 of 19

TES File: IDA-2033A\2033A-PlotPhoto13.cdr\6-26-2013



LEGEND:

SIGN	PARCEL BOUNDARY LINE
SIGN (2 POST)	ADJOINING PARCEL LINE
DECIDUOUS TREE	STREET/HIGHWAY LINE
CONIFEROUS TREE	CHAIN LINK FENCE LINE
SHRUB	STOCKADE FENCE LINE
LIGHT POLE (LIGHT)	STORM SEWER LINE W/SQUARE CATCH BASIN (CB)
BOLLARD (BOL)	SANITARY SEWER LINE W/MANHOLE AND CLEANOUT (MHSA, CO)
HYDRANT (HYD)	OVERHEAD UTILITY LINE W/POWER POLE (POLE)
WATER MANHOLE (MHW)	ELECTRIC LINE W/ELECTRIC MANHOLE (ELEC MH)
GAS SHUT OFF VALVE (GSO)	WATER LINE W/VALVE (WV)
BORING W/ DESIGNATOR (B-1)	GAS LINE W/VALVE (GV)
PROPERTY MONUMENTATION FOUND (REBAR, IRON PIN, IRON PIPE)	TELEPHONE LINE W/SIGNAL BOX (SIG BOX)
SURVEY CONTROL POINT	CONTOUR LINE

RECORD DRAWINGS UTILIZED:

1. OAK ORCHARD FORCE MAIN & EFFLUENT SEWER, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.216, DATED FEBRUARY 7, 1975.
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3. PLAN AND PROFILE DESIGN DRAWINGS FOR ONONDAGA COUNTY'S CLAY-CICERO 24" EFFLUENT FORCE MAIN, PREPARED O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.138, DATED SEPTEMBER 27, 1965.
4. PLAN AND PROFILE DESIGN DRAWING S FOR ONONDAGA COUNTY'S DAVIS ROAD 36" FORCE MAIN, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.243, DATED JUNE 27, 1975.

NOTES:

1. BASE MAPPING PREPARED BY CHA FROM A DECEMBER 2012 THROUGH JANUARY 2013 FIELD SURVEY (ROCH. FB.150, P.32).
2. NORTH ORIENTATION AND CONTOURS ARE BASED ON GPS ESTABLISHED AT THE TIME OF THE SURVEY. REFERENCED TO NAD 83(CORS96), NYS-CENTRAL (US FEET) AND NAVD 88 (US FEET) USING NYSDOT RTN SYSTEM.
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6. 4"-36" OF SNOW COVER WITH UP TO 10' HIGH SNOW PILES EXISTED DURING PORTIONS OF FIELD SURVEY.

LEGEND

* No Plot or Photo Locations are Included on this Figure

NORTH

0' 60' 120'

APPROXIMATE SCALE IN FEET

Figure Prepared by Terrestrial Environmental Specialists, Inc.

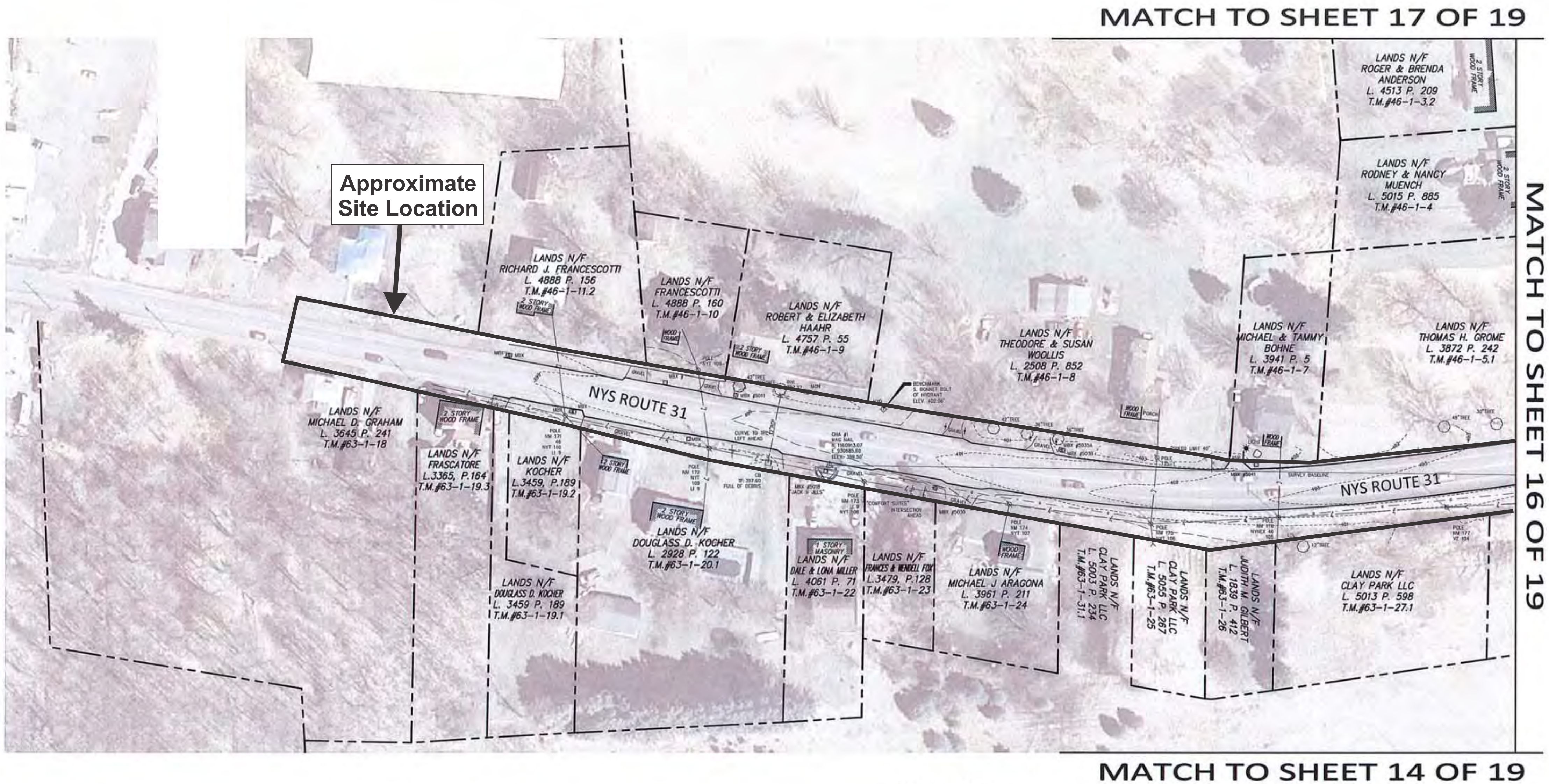
Base Map Provided by CHA Companies

Figure 10-14.

Wetland Survey Map with Plot and Photograph Locations

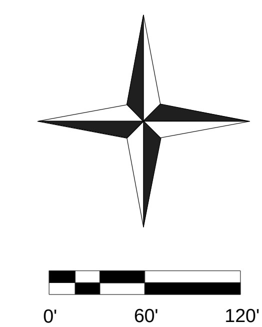
Sheet 14 of 19

TES File: IDA-2033A\2033A-PlotPhoto14.cdr\6-25-2013



LEGEND

* No Plot or Photo Locations are Included on this Figure



APPROXIMATE SCALE IN FEET

Figure Prepared by Terrestrial Environmental Specialists, Inc.

Base Map Provided by CHA Companies

LEGEND:

SIGN			PARCEL BOUNDARY LINE
SIGN (2 POST)			ADJOINING PARCEL LINE
DECIDUOUS TREE			STREET/HIGHWAY LINE
CONIFEROUS TREE			CHAIN LINK FENCE LINE
SHRUB			STOCKADE FENCE LINE
LIGHT POLE	LIGHT	CB	STORM SEWER LINE W/SQUARE CATCH BASIN
BOLLARD	BOL	MHSA CO	SANITARY SEWER LINE W/MANHOLE AND CLEANOUT
HYDRANT	HYD	POLE	OVERHEAD UTILITY LINE W/POWER POLE
WATER MANHOLE	MHW	ELEC MH	ELECTRIC LINE W/ELECTRIC MANHOLE
GAS SHUT OFF VALVE	GSO	WV	WATER LINE W/VALVE
BORING W/ DESIGNATOR	B-1	GV	GAS LINE W/VALVE
PROPERTY MONUMENTATION FOUND	REBAR IRON PIN IRON PIPE	SIG BOX	TELEPHONE LINE W/SIGNAL BOX
SURVEY CONTROL POINT			CONTOUR LINE

RECORD DRAWINGS UTILIZED:

1. OAK ORCHARD FORCE MAIN & EFFLUENT SEWER, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.216, DATED FEBRUARY 7, 1975.
2. PLAN AND PROFILE RECORD DRAWINGS FOR METRO WATER BOARD'S 54" WATER TRANSMISSION MAIN ALONG 99-FOOT WIDE EASEMENT, PREPARED BY, O'BRIEN & GERE ENGINEERS, INC., FILE No. 446.23, LAST DATED JULY 7, 1965.
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4. PLAN AND PROFILE DESIGN DRAWING S FOR ONONDAGA COUNTY'S DAVIS ROAD 36" FORCE MAIN, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.243, DATED JUNE 27, 1975.

NOTES:

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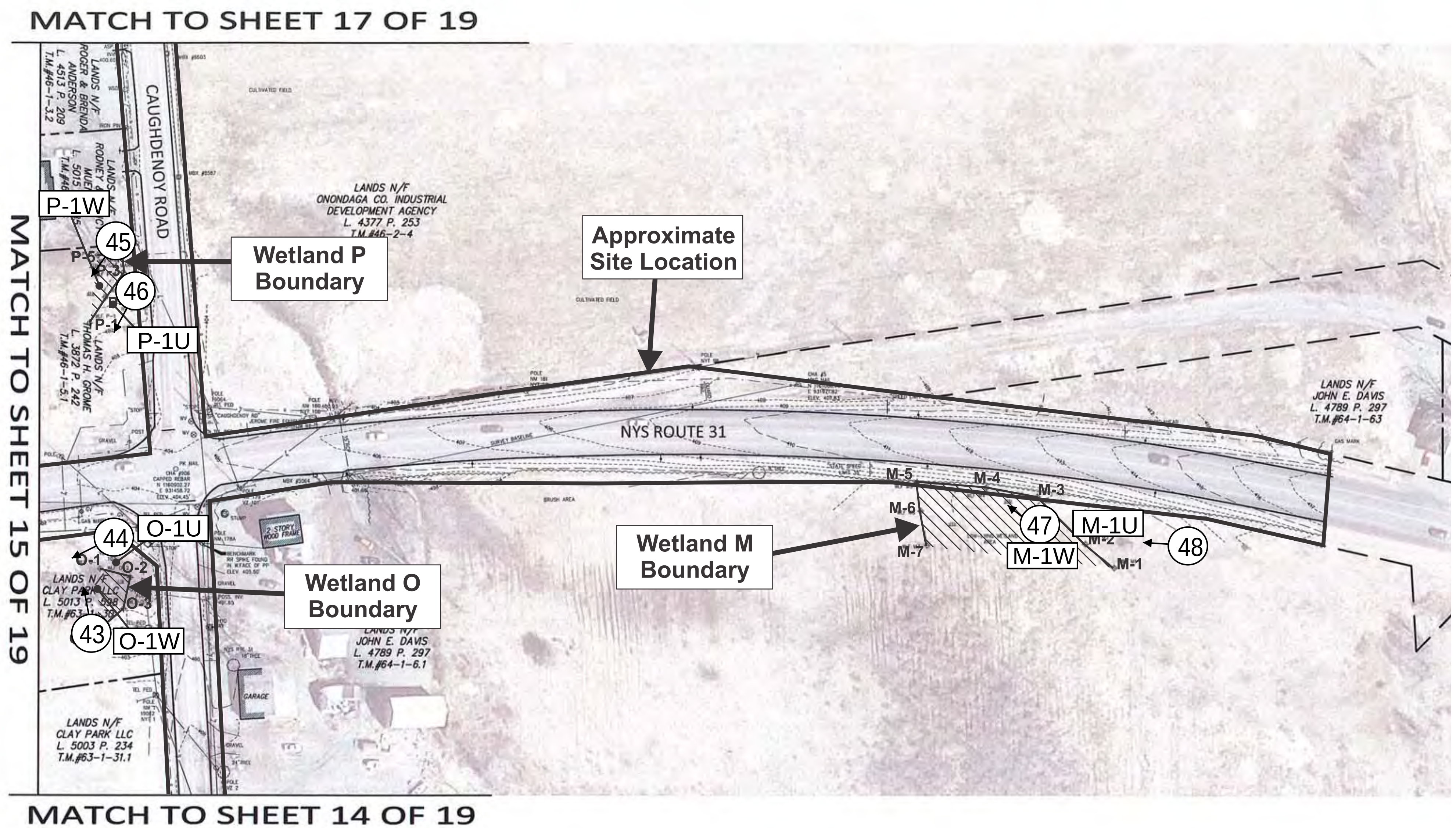
5. NO BOUNDARY TASKS WERE PERFORMED DURING THIS SURVEY.
6. 4"-36" OF SNOW COVER WITH UP TO 10' HIGH SNOW PILES EXISTED DURING PORTIONS OF FIELD SURVEY.

Figure 10-15.

Wetland Survey Map with Plot and Photograph Locations

Sheet 15 of 19

TES File: IDA-2033A\2033A-PlotPhoto15.cdr\6-25-2013



LEGEND:

SIGN	PARCEL BOUNDARY LINE
SIGN (2 POST)	ADJOINING PARCEL LINE
DECIDUOUS TREE	STREET/HIGHWAY LINE
CONIFEROUS TREE	CHAIN LINK FENCE LINE
SHRUB	STOCKADE FENCE LINE
LIGHT POLE	STORM SEWER LINE W/SQUARE CATCH BASIN
BOLLARD	SANITARY SEWER LINE W/MANHOLE AND CLEANOUT
HYDRANT	OVERHEAD UTILITY LINE W/POWER POLE
WATER MANHOLE	ELECTRIC LINE W/ELECTRIC MANHOLE
GAS SHUT OFF VALVE	WATER LINE W/VALVE
BORING W/ DESIGNATOR	GAS LINE W/VALVE
PROPERTY MONUMENTATION FOUND	TELEPHONE LINE W/SIGNAL BOX
SURVEY CONTROL POINT	CONTOUR LINE

RECORD DRAWINGS UTILIZED:

1. OAK ORCHARD FORCE MAIN & EFFLUENT SEWER, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.216, DATED FEBRUARY 7, 1975.
2. PLAN AND PROFILE RECORD DRAWINGS FOR METRO WATER BOARD'S 54" WATER TRANSMISSION MAIN ALONG 99–FOOT WIDE EASEMENT, PREPARED BY, O'BRIEN & GERE ENGINEERS, INC., FILE No. 446.23, LAST DATED JULY 7, 1965.
3. PLAN AND PROFILE DESIGN DRAWINGS FOR ONONDAGA COUNTY'S CLAY–CICERO 24" EFFLUENT FORCE MAIN, PREPARED O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.138, DATED SEPTEMBER 27, 1965.
4. PLAN AND PROFILE DESIGN DRAWING S FOR ONONDAGA COUNTY'S DAVIS ROAD 36" FORCE MAIN, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.243, DATED JUNE 27, 1975.

NOTES:

1. BASE MAPPING PREPARED BY CHA FROM A DECEMBER 2012 THROUGH JANUARY 2013 FIELD SURVEY (ROCH. FB.150, P.32).
2. NORTH ORIENTATION AND CONTOURS ARE BASED ON GPS ESTABLISHED AT THE TIME OF THE SURVEY. REFERENCED TO NAD 83(CORS96), NYS–CENTRAL (US FEET) AND NAVD 88 (US FEET) USING NYSDOT RTN SYSTEM.
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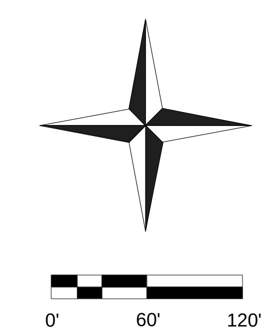
4. SUBJECT TO ANY RIGHTS, EASEMENTS, COVENANTS OR RESTRICTIONS OF RECORD.
5. NO BOUNDARY TASKS WERE PERFORMED DURING THIS SURVEY.
6. 4"–36" OF SNOW COVER WITH UP TO 10' HIGH SNOW PILES EXISTED DURING PORTIONS OF FIELD SURVEY.

LEGEND

P-1W Sample Plot Location

43 Photo Location and Direction



APPROXIMATE SCALE IN FEET

Figure Prepared by
Terrestrial Environmental
Specialists, Inc.

Base Map Provided by
CHA Companies

Figure 10-16.

Wetland Survey Map with Plot and Photograph Locations

Sheet 16 of 19

TES File: IDA-2033A\2033A-PlotPhoto16.cdr\6-25-2013

LEGEND

UP-3 Sample Plot Location

49 Photo Location and Direction

NORTH

0' 60' 120'

APPROXIMATE SCALE IN FEET

Figure Prepared by Terrestrial Environmental Specialists, Inc.

Base Map Provided by CHA Companies

Figure 10-17.

Wetland Survey Map with Plot and Photograph Locations

Sheet 17 of 19

LEGEND:

SIGN
SIGN (2 POST)
DECIDUOUS TREE
CONIFEROUS TREE
SHRUB
LIGHT POLE
BOLLARD
HYDRANT
WATER MANHOLE
GAS SHUT OFF VALVE
BORING W/ DESIGNATOR
PROPERTY MONUMENTATION FOUND
SURVEY CONTROL POINT

PARCEL BOUNDARY LINE
ADJOINING PARCEL LINE
STREET/HIGHWAY LINE
CHAIN LINK FENCE LINE
STOCKADE FENCE LINE
STORM SEWER LINE W/SQUARE CATCH BASIN
SANITARY SEWER LINE W/MANHOLE AND CLEANOUT
OVERHEAD UTILITY LINE W/POWER POLE
ELECTRIC LINE W/ELECTRIC MANHOLE
WATER LINE W/VALVE
GAS LINE W/VALVE
TELEPHONE LINE W/SIGNAL BOX
CONTOUR LINE

RECORD DRAWINGS UTILIZED:

1. OAK ORCHARD FORCE MAIN & EFFLUENT SEWER, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.216, DATED FEBRUARY 7, 1975.
2. PLAN AND PROFILE RECORD DRAWINGS FOR METRO WATER BOARD'S 54" WATER TRANSMISSION MAIN ALONG 99-FOOT WIDE EASEMENT, PREPARED BY, O'BRIEN & GERE ENGINEERS, INC., FILE No. 446.23, LAST DATED JULY 7, 1965.
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4. PLAN AND PROFILE DESIGN DRAWING S FOR ONONDAGA COUNTY'S DAVIS ROAD 36" FORCE MAIN, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.243, DATED JUNE 27, 1975.

NOTES:

1. BASE MAPPING PREPARED BY CHA FROM A DECEMBER 2012 THROUGH JANUARY 2013 FIELD SURVEY (ROCH. FB.150, P.32).
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5. NO BOUNDARY TASKS WERE PERFORMED DURING THIS SURVEY.
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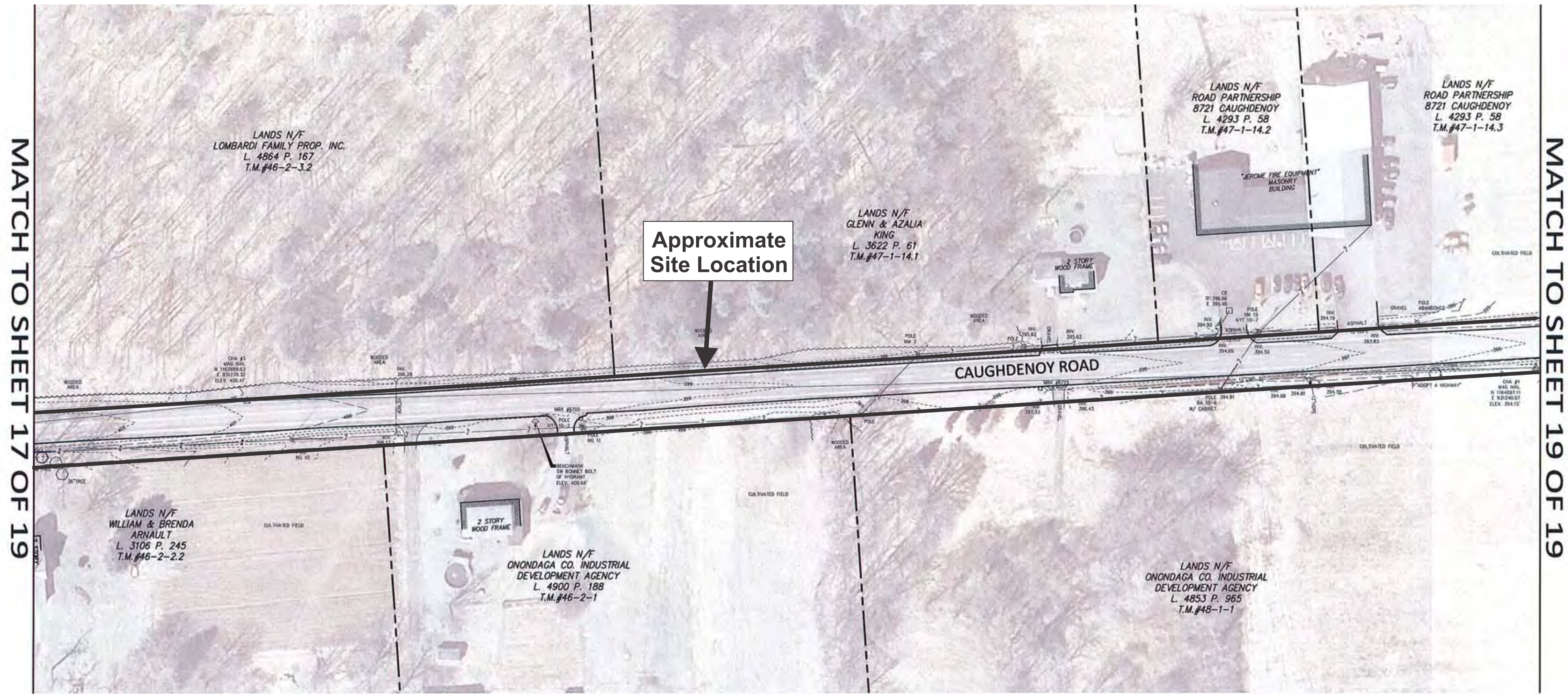
TES File: IDA-2033A\2033A-PlotPhoto17.cdr\6-25-2013



LEGEND:

SIGN	PARCEL BOUNDARY LINE
SIGN (2 POST)	ADJOINING PARCEL LINE
DECIDUOUS TREE	STREET/HIGHWAY LINE
CONIFEROUS TREE	CHAIN LINK FENCE LINE
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LIGHT POLE	STORM SEWER LINE W/SQUARE CATCH BASIN
BOLLARD	SANITARY SEWER LINE W/MANHOLE AND CLEANOUT
HYDRANT	OVERHEAD UTILITY LINE W/POWER POLE
WATER MANHOLE	ELECTRIC LINE W/ELECTRIC MANHOLE
GAS SHUT OFF VALVE	WATER LINE W/VALVE
BORING W/ DESIGNATOR	GAS LINE W/VALVE
PROPERTY MONUMENTATION FOUND	TELEPHONE LINE W/SIGNAL BOX
SURVEY CONTROL POINT	CONTOUR LINE

RECORD DRAWINGS UTILIZED:

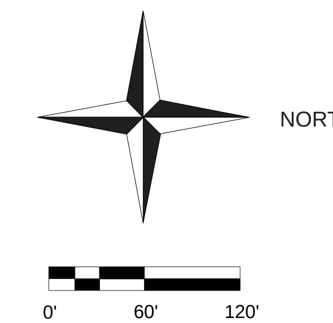
1. OAK ORCHARD FORCE MAIN & EFFLUENT SEWER, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.216, DATED FEBRUARY 7, 1975.
2. PLAN AND PROFILE RECORD DRAWINGS FOR METRO WATER BOARD'S 54" WATER TRANSMISSION MAIN ALONG 99–FOOT WIDE EASEMENT, PREPARED BY, O'BRIEN & GERE ENGINEERS, INC., FILE No. 446.23, LAST DATED JULY 7, 1965.
3. PLAN AND PROFILE DESIGN DRAWINGS FOR ONONDAGA COUNTY'S CLAY–CICERO 24" EFFLUENT FORCE MAIN, PREPARED O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.138, DATED SEPTEMBER 27, 1965.
4. PLAN AND PROFILE DESIGN DRAWING S FOR ONONDAGA COUNTY'S DAVIS ROAD 36" FORCE MAIN, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.243, DATED JUNE 27, 1975.

NOTES:

1. BASE MAPPING PREPARED BY CHA FROM A DECEMBER 2012 THROUGH JANUARY 2013 FIELD SURVEY (ROCH. FB.150, P.32).
2. NORTH ORIENTATION AND CONTOURS ARE BASED ON GPS ESTABLISHED AT THE TIME OF THE SURVEY. REFERENCED TO NAD 83(CORS96), NYS–CENTRAL (US FEET) AND NAVD 88 (US FEET) USING NYSDOT RTN SYSTEM.
3. UNDERGROUND UTILITIES ARE SHOWN FROM FIELD LOCATION IF POSSIBLE, OTHERS ARE SHOWN FROM RECORD DATA. THEIR EXACT LOCATION MAY DIFFER FROM THAT AS SHOWN AND OTHERS MAY EXIST.
4. SUBJECT TO ANY RIGHTS, EASEMENTS, COVENANTS OR RESTRICTIONS OF RECORD.
5. NO BOUNDARY TASKS WERE PERFORMED DURING THIS SURVEY.
6. 4"–36" OF SNOW COVER WITH UP TO 10' HIGH SNOW PILES EXISTED DURING PORTIONS OF FIELD SURVEY.

LEGEND

* No Plot or Photo Locations are Included on this Figure



APPROXIMATE SCALE IN FEET

Figure Prepared by Terrestrial Environmental Specialists, Inc.

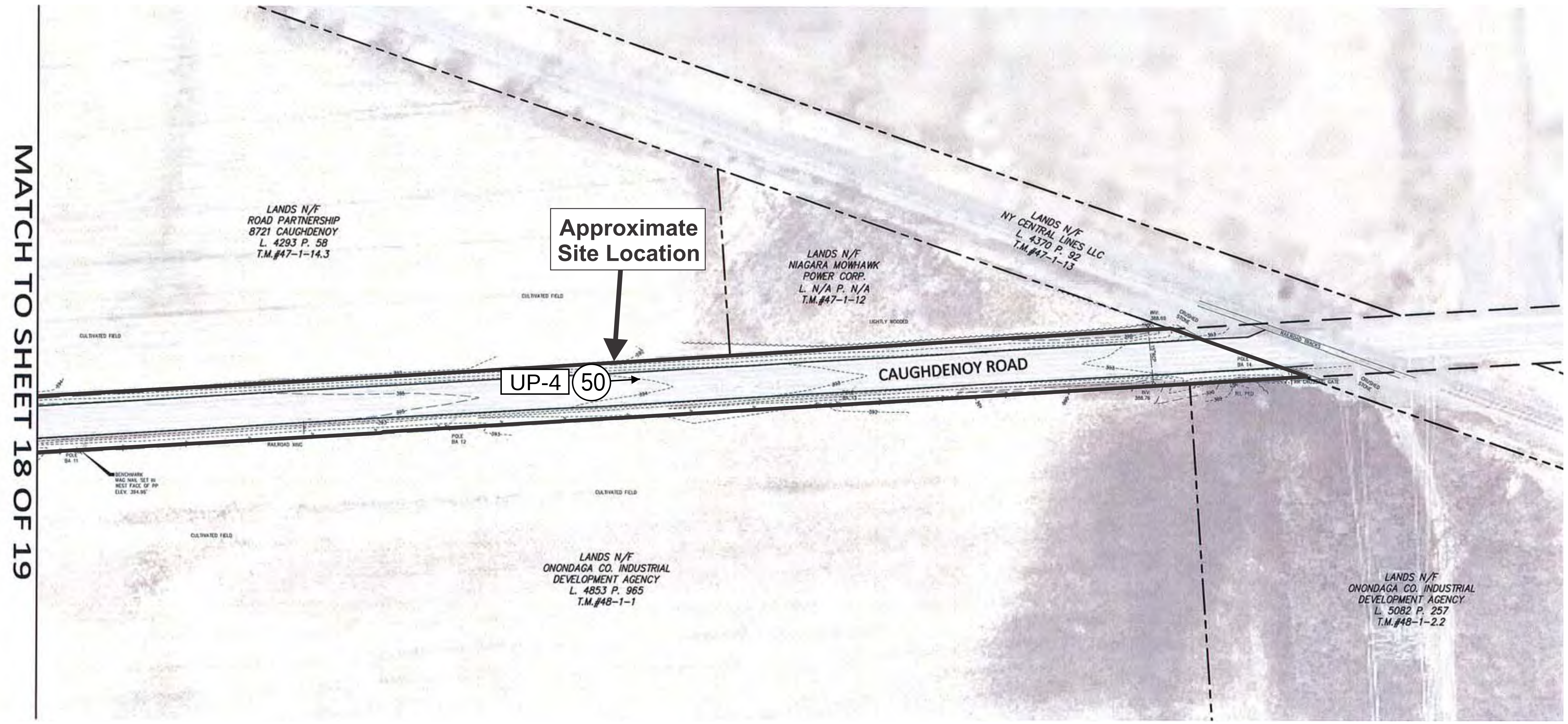
Base Map Provided by CHA Companies

Figure 10-18.

Wetland Survey Map with Plot and Photograph Locations

Sheet 18 of 19

TES File: IDA-2033A\2033A-PlotPhoto18.cdr\6-25-2013



LEGEND

UP-4 Sample Plot Location

50 Photo Location and Direction

NORTH

0' 60' 120'

APPROXIMATE SCALE IN FEET

Figure Prepared by Terrestrial Environmental Specialists, Inc.

Base Map Provided by CHA Companies

Figure 10-19.

Wetland Survey Map with Plot and Photograph Locations

Sheet 19 of 19

LEGEND:

- SIGN
- SIGN (2 POST)
- DECIDUOUS TREE
- CONIFEROUS TREE
- SHRUB
- LIGHT POLE (LIGHT)
- BOLLARD (BOL)
- HYDRANT (HYD)
- WATER MANHOLE (MHW)
- GAS SHUT OFF VALVE (GSO)
- BORING W/ DESIGNATOR (B-1)
- PROPERTY MONUMENTATION FOUND (REBAR, IRON PIN, IRON PIPE)
- SURVEY CONTROL POINT
- PARCEL BOUNDARY LINE
- ADJOINING PARCEL LINE
- STREET/HIGHWAY LINE
- CHAIN LINK FENCE LINE
- STOCKADE FENCE LINE
- STORM SEWER LINE W/SQUARE CATCH BASIN (CB)
- SANITARY SEWER LINE W/MANHOLE AND CLEANOUT (MHSA, CO)
- OVERHEAD UTILITY LINE W/POWER POLE (POLE)
- ELECTRIC LINE W/ELECTRIC MANHOLE (ELEC MH)
- WATER LINE W/VALVE (WV)
- GAS LINE W/VALVE (GV)
- TELEPHONE LINE W/SIGNAL BOX (SIG BOX)
- CONTOUR LINE

RECORD DRAWINGS UTILIZED:

1. OAK ORCHARD FORCE MAIN & EFFLUENT SEWER, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.216, DATED FEBRUARY 7, 1975.
2. PLAN AND PROFILE RECORD DRAWINGS FOR METRO WATER BOARD'S 54" WATER TRANSMISSION MAIN ALONG 99-FOOT WIDE EASEMENT, PREPARED BY, O'BRIEN & GERE ENGINEERS, INC., FILE No. 446.23, LAST DATED JULY 7, 1965.
3. PLAN AND PROFILE DESIGN DRAWINGS FOR ONONDAGA COUNTY'S CLAY-CICERO 24" EFFLUENT FORCE MAIN, PREPARED O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.138, DATED SEPTEMBER 27, 1965.
4. PLAN AND PROFILE DESIGN DRAWING S FOR ONONDAGA COUNTY'S DAVIS ROAD 36" FORCE MAIN, PREPARED BY O'BRIEN & GERE ENGINEERS, INC., FILE No. 115.243, DATED JUNE 27, 1975.

NOTES:

1. BASE MAPPING PREPARED BY CHA FROM A DECEMBER 2012 THROUGH JANUARY 2013 FIELD SURVEY (ROCH. FB.150, P.32).
2. NORTH ORIENTATION AND CONTOURS ARE BASED ON GPS ESTABLISHED AT THE TIME OF THE SURVEY. REFERENCED TO NAD 83(CORS96), NYS-CENTRAL (US FEET) AND NAVD 88 (US FEET) USING NYSDOT RTN SYSTEM.
3. UNDERGROUND UTILITIES ARE SHOWN FROM FIELD LOCATION IF POSSIBLE, OTHERS ARE SHOWN FROM RECORD DATA. THEIR EXACT LOCATION MAY DIFFER FROM THAT AS SHOWN AND OTHERS MAY EXIST.
4. SUBJECT TO ANY RIGHTS, EASEMENTS, COVENANTS OR RESTRICTIONS OF RECORD.
5. NO BOUNDARY TASKS WERE PERFORMED DURING THIS SURVEY.
6. 4"-36" OF SNOW COVER WITH UP TO 10' HIGH SNOW PILES EXISTED DURING PORTIONS OF FIELD SURVEY.

TES File: IDA-2033A\2033A-PlotPhoto19.cdr\6-25-2013

APPENDIX A – Photographs

Photo 1.

Photo 2.

Photo 3.

Photo 4.


Photo 5.


Photo 6.


Photo 7.


Photo 8.


Photo 9.


Photo 10.


Photo 11.


Photo 12.

Photo 13.

Photo 14.

Photo 15.

Photo 16.


Photo 17.


Photo 18.


Photo 19.


Photo 20.


Photo 21.


Photo 22.


Photo 23.


Photo 24.


Photo 25.


Photo 26.


Photo 27.


Photo 28.

Photo 29.

Photo 30.

Photo 31.

Photo 32.

Photo 33.

Photo 34.

Photo 35.

Photo 36.

Photo 37.

Photo 38.

Photo 39.

Photo 40.


Photo 41.


Photo 42.


Photo 43.


Photo 44.


Photo 45.


Photo 46.


Photo 47.


Photo 48.


Photo 49.


Photo 50.

APPENDIX B – Field Data Sheets

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 27-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** A-1U

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Hillside

Soil Map Unit Name: Dunkirk silt loam, rolling **Cover Type:** OF

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) **(If no, explain in Remarks.)**

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes (●) No ( )

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** **(If needed, explain any answers in Remarks.)**

Summary of Findings - Attach site map showing sampling point locations, transects, important features, et

Hydrophytic Vegetation Present?	Yes ( ) No (●)	**Is the Sampled Area within a Wetland?** Yes ( ) No (●)
Hydric Soil Present?	Yes ( ) No (●)	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes ( ) No (●)	

Remarks:
Flag # A-4, Photo # 5NW

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15' Radius)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' Radius)				
1. Plantago major	55	☑	43.3%	FACU
2. Trifolium pratense	45	☑	35.4%	FACU
3. Taraxacum officinale	15	☐	11.8%	FACU
4. Lolium perenne	2	☐	1.6%	FACU
5. Phleum pratense	5	☐	3.9%	FACU
6. Galium mollugo	5	☐	3.9%	UPL
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	127	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC:	0	(A)
Total Number of Dominant Species Across All Strata:	2	(B)
Percent of dominant Species That Are OBL, FACW, or FAC:	0.0%	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:		
OBL species	0	x 1 =	0	
FACW species	0	x 2 =	0	
FAC species	0	x 3 =	0	
FACU species	122	x 4 =	488	
UPL species	5	x 5 =	25	
Column Totals:	127	(A)	513	(B)

Prevalence Index = B/A = 4.039

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☐ **Dominance Test is > 50%**
- ☐ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Hydrophytic Vegetation Present? Yes ( ) No (●)

Remarks: (Include photo numbers here or on a separate sheet.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: A-1U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		Matrix %	Redox Features Color (moist)		Redox %	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR	4/3	100%						Loam	
12-20	10YR	5/6	98%	10YR	5/4	2%	C	M	Silt Loam	

[1] Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2]Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ◉

Remarks:

Hydrology

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 27-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** A-1W

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Swale

Soil Map Unit Name: Dunkirk silt loam, rolling **Cover Type:** EW

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) **(If no, explain in Remarks.)**

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes (●) No ( )

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** **(If needed, explain any answers in Remarks.)**

Summary of Findings - Attach site map showing sampling point locations, transects, important features, et

Hydrophytic Vegetation Present?	Yes (●) No ( )	**Is the Sampled Area within a Wetland?** Yes (●) No ( )
Hydric Soil Present?	Yes (●) No ( )	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes (●) No ( )	

Remarks:
Flag # A-4, Photo # 4SW

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15' Radius)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' Radius)				
1. Acorus americanus	60	☑	66.7%	OBL
2. Onoclea sensibilis	5	☐	5.6%	FACW
3. Carex sp.	15	☐	16.7%	FAC
4. Mentha spicata	5	☐	5.6%	FACW
5. Bidens sp.	5	☐	5.6%	FACW
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	90	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC:	1	(A)
Total Number of Dominant Species Across All Strata:	1	(B)
Percent of dominant Species That Are OBL, FACW, or FAC:	100.0%	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:		
OBL species	60	x 1 =	60	
FACW species	15	x 2 =	30	
FAC species	15	x 3 =	45	
FACU species	0	x 4 =	0	
UPL species	0	x 5 =	0	
Column Totals:	90	(A)	135	(B)

Prevalence Index = B/A = 1.500

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☑ **Dominance Test is > 50%**
- ☑ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations [1] (Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation [1] (Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Hydrophytic Vegetation Present? Yes (●) No ( )

Remarks: (Include photo numbers here or on a separate sheet.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: A-1W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		Matrix %	Redox Features Color (moist)		Redox %	Type [1]	Loc [2]	Texture	Remarks
0-4	10YR	4/3	100%						Silt Loam	
4-12+	10YR	4/1	95%	10YR	4/4	5%	C	M	Silt Loam	

[1] Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2] Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- [ ] Histosol (A1)
- [ ] Histic Epipedon (A2)
- [ ] Black Histic (A3) (except in MLRA 143)
- [ ] Hydrogen Sulfide (A4)
- [ ] Stratified Layers (A5)
- [ ] Depleted Below Dark Surface (A11)
- [ ] Thick Dark Surface (A12)
- [ ] Sandy Muck Mineral (S1)
- [ ] Sandy Gleyed Matrix (S4)
- [ ] Sandy Redox (S5)
- [ ] Stripped Matrix (S6) (Drop in LRR R?
- [ ] Dark Surface (S7) (MLRA 149B of LRR S)
- [ ] Polyvalue Below Surface (S8) (LRR R, S)
- [ ] Thin Dark Surface (S9) (LRR R, S)
- [ ] Loamy Mucky Mineral (F1)
- [ ] Loamy Gleyed Matrix (F2)
- [x] Depleted Matrix (F3)
- [ ] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [ ] Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- [ ] 2 cm Muck (A10) (LRR K, L, S)
- [ ] Coast Prairie Redox (A16) (LRR K, L, R)
- [ ] 5 cm Mucky Peat or Peat (S3)
- [ ] Dark Surface (S7) (LRR K, L)
- [ ] Polyvalue Below Surface (S8) (LRR K, L)
- [ ] Thin Dark Surface (S9) (LRR K, L)
- [ ] Iron-Manganese Masses (F12)
- [ ] Piedmont Floodplain Soils (F19)
- [ ] Red Parent Material (TF2)
- [ ] Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes (●) No ( )

Remarks:

Hydrology

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [ ] Saturation (A3)
- [x] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Water-Stained Leaves (B9)
- [ ] Aquatic Fauna (B13)
- [ ] Marl Deposits (B15)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Oxidized Rhizospheres along Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Recent Iron Reduction in Tilled Soils (C6)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [x] Drainage Patterns (B10)
- [ ] Moss Trim Lines (B16)
- [ ] Dry Season Water Table (C2)
- [ ] Crayfish Burrows (C8)
- [x] Saturation Visible on Aerial Imagery (C9)
- [ ] Stunted or Stressed Plants (D1)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4
- [x] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ( ) No (●) Depth (inches):

Water Table Present? Yes ( ) No (●) Depth (inches):

Saturation Present? (includes capillary fringe) Yes ( ) No (●) Depth (inches):

Wetland Hydrology Present? Yes (●) No ( )

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 27-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** A-1W

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Swale

Soil Map Unit Name: Dunkirk silt loam, rolling **Cover Type:** EW

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ◉ No ◯ **(If no, explain in Remarks.)**

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ◉ No ◯

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** **(If needed, explain any answers in Remarks.)**

Summary of Findings - Attach site map showing sampling point locations, transects, important features, et

Hydrophytic Vegetation Present?	Yes ◉ No ◯	**Is the Sampled Area within a Wetland?** Yes ◉ No ◯
Hydric Soil Present?	Yes ◉ No ◯	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes ◉ No ◯	

Remarks:
Flag # A-4, Photo # 4SW

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' Radius)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Herb Stratum (Plot size: 5' Radius)			
1. Acorus americanus	60	☑ 66.7%	OBL
2. Onoclea sensibilis	5	☐ 5.6%	FACW
3. Carex sp.	15	☐ 16.7%	FAC
4. Mentha spicata	5	☐ 5.6%	FACW
5. Bidens sp.	5	☐ 5.6%	FACW
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	90	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC:	1	(A)
Total Number of Dominant Species Across All Strata:	1	(B)
Percent of dominant Species That Are OBL, FACW, or FAC:	100.0%	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:		
OBL species	60	x 1 =	60	
FACW species	15	x 2 =	30	
FAC species	15	x 3 =	45	
FACU species	0	x 4 =	0	
UPL species	0	x 5 =	0	
Column Totals:	90	(A)	135	(B)

Prevalence Index = B/A = 1.500

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☑ **Dominance Test is > 50%**
- ☑ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations [1] (Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation [1] (Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Hydrophytic Vegetation Present? Yes ◉ No ◯

Remarks: (Include photo numbers here or on a separate sheet.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: A-1W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		Matrix %	Redox Features Color (moist)		Redox %	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR	4/3	100%						Silt Loam	
4-12+	10YR	4/1	95%	10YR	4/4	5%	C	M	Silt Loam	

[1] Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2]Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- [ ] Histosol (A1)
- [ ] Histic Epipedon (A2)
- [ ] Black Histic (A3) (except in MLRA 143)
- [ ] Hydrogen Sulfide (A4)
- [ ] Stratified Layers (A5)
- [ ] Depleted Below Dark Surface (A11)
- [ ] Thick Dark Surface (A12)
- [ ] Sandy Muck Mineral (S1)
- [ ] Sandy Gleyed Matrix (S4)
- [ ] Sandy Redox (S5)
- [ ] Stripped Matrix (S6) (Drop in LRR R?
- [ ] Dark Surface (S7) (MLRA 149B of LRR S)
- [ ] Polyvalue Below Surface (S8) (LRR R, S)
- [ ] Thin Dark Surface (S9) (LRR R, S)
- [ ] Loamy Mucky Mineral (F1)
- [ ] Loamy Gleyed Matrix (F2)
- [x] Depleted Matrix (F3)
- [ ] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [ ] Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- [ ] 2 cm Muck (A10) (LRR K, L, S)
- [ ] Coast Prairie Redox (A16) (LRR K, L, R)
- [ ] 5 cm Mucky Peat or Peat (S3)
- [ ] Dark Surface (S7) (LRR K, L)
- [ ] Polyvalue Below Surface (S8) (LRR K, L)
- [ ] Thin Dark Surface (S9) (LRR K, L)
- [ ] Iron-Manganese Masses (F12)
- [ ] Piedmont Floodplain Soils (F19)
- [ ] Red Parent Material (TF2)
- [ ] Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes (●) No ( )

Remarks:

Hydrology

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [ ] Saturation (A3)
- [x] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Water-Stained Leaves (B9)
- [ ] Aquatic Fauna (B13)
- [ ] Marl Deposits (B15)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Oxidized Rhizospheres along Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Recent Iron Reduction in Tilled Soils (C6)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [x] Drainage Patterns (B10)
- [ ] Moss Trim Lines (B16)
- [ ] Dry Season Water Table (C2)
- [ ] Crayfish Burrows (C8)
- [x] Saturation Visible on Aerial Imagery (C9)
- [ ] Stunted or Stressed Plants (D1)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4
- [x] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ( ) No (●) Depth (inches):

Water Table Present? Yes ( ) No (●) Depth (inches):

Saturation Present? (includes capillary fringe) Yes ( ) No (●) Depth (inches):

Wetland Hydrology Present? Yes (●) No ( )

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 27-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** B-1U

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Flat

Soil Map Unit Name: Collamer silt loam, 2 to 6 percent slopes **Cover Type:** OF

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) **(If no, explain in Remarks.)**

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes (●) No ( )

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** **(If needed, explain any answers in Remarks.)**

Summary of Findings - Attach site map showing sampling point locations, transects, important features, et

Hydrophytic Vegetation Present?	Yes ( ) No (●)	**Is the Sampled Area within a Wetland?** Yes ( ) No (●)
Hydric Soil Present?	Yes ( ) No (●)	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes ( ) No (●)	

Remarks:
Flag # B-3, Photo # 9SE

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15' Radius)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' Radius)				
1. Medicago sativa	95	☑	86.4%	UPL
2. Trifolium repens	10	☐	9.1%	FACU
3. Taraxacum officinale	5	☐	4.5%	FACU
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	110	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC:	0	(A)
Total Number of Dominant Species Across All Strata:	1	(B)
Percent of dominant Species That Are OBL, FACW, or FAC:	0.0%	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	15	x 4 =	60
UPL species	95	x 5 =	475
Column Totals:	110 (A)		535 (B)

Prevalence Index = B/A = 4.864

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☐ **Dominance Test is > 50%**
- ☐ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Hydrophytic Vegetation Present? Yes ( ) No (●)

Remarks: (Include photo numbers here or on a separate sheet.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: B-1U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		Matrix %	Redox Color (moist)		Redox %	Type[1]	Loc[2]	Texture	Remarks
0-14	10YR	4/3	100%						Silt Loam	
14-24	10YR	4/4	95%	10YR	5/3	5%	D	M	Silt Loam	

[1] Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2]Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ◉

Remarks:

Hydrology

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 27-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** B-1W

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Swale

Soil Map Unit Name: Collamer silt loam, 2 to 6 percent slopes **Cover Type:** WM/Ditch

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) **(If no, explain in Remarks.)**

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes (●) No ( )

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** **(If needed, explain any answers in Remarks.)**

Summary of Findings - Attach site map showing sampling point locations, transects, important features, et

Hydrophytic Vegetation Present?	Yes (●) No ( )	**Is the Sampled Area within a Wetland?** Yes (●) No ( )
Hydric Soil Present?	Yes (●) No ( )	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes (●) No ( )	

Remarks:
Flag # B-3, Photo # 8W

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' Radius)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Herb Stratum (Plot size: 5' Radius)			
1. Carex sp.	90	☑ 90.9%	FAC
2. plantago major	2	☐ 2.0%	FACU
3. Trifolium repens	2	☐ 2.0%	FACU
4. Rumex crispus	5	☐ 5.1%	FAC
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	99	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC:	1	(A)
Total Number of Dominant Species Across All Strata:	1	(B)
Percent of dominant Species That Are OBL, FACW, or FAC:	100.0%	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:		
OBL species	0	x 1 =	0	
FACW species	0	x 2 =	0	
FAC species	95	x 3 =	285	
FACU species	4	x 4 =	16	
UPL species	0	x 5 =	0	
Column Totals:	99	(A)	301	(B)

Prevalence Index = B/A = 3.040

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☑ **Dominance Test is > 50%**
- ☐ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Hydrophytic Vegetation Present? Yes (●) No ( )

Remarks: (Include photo numbers here or on a separate sheet.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: B-1W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		Matrix %	Redox Features Color (moist)		Redox %	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR	4/2	90%	10YR	4/4	10%	C	M	Silt Loam	
12-22	10YR	4/3	90%	10YR	6/2	10%	D	M	Silt Loam	

[1] Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2]Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks:

Hydrology

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☑ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ○	No ◉	Depth (inches):
Water Table Present?	Yes ○	No ◉	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes ○	No ◉	Depth (inches):

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 27-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** C-1U

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Hillside

Soil Map Unit Name: Collamer silt loam, 2 to 6 percent slopes **Cover Type:** OF

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) **(If no, explain in Remarks.)**

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes (●) No ( )

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** **(If needed, explain any answers in Remarks.)**

Summary of Findings - Attach site map showing sampling point locations, transects, important features, et

Hydrophytic Vegetation Present?	Yes ( ) No (●)	**Is the Sampled Area within a Wetland?** Yes ( ) No (●)
Hydric Soil Present?	Yes ( ) No (●)	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes ( ) No (●)	

Remarks:
Flag # C-103, Photo # 13SW

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0		= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' Radius)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0		= Total Cover	
Herb Stratum (Plot size: 5' Radius)				
1. Daucus carota	20	☐	14.1%	UPL
2. Lotus corniculatus	2	☐	1.4%	FACU
3. Achillea millefolium	10	☐	7.0%	FACU
4. Trifolium pratense	40	☑	28.2%	FACU
5. Plantago major	10	☐	7.0%	FACU
6. Medicago sativa	25	☐	17.6%	UPL
7. Carex sp.	35	☑	24.6%	FAC
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	142		= Total Cover	
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	0		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC:	1	(A)
Total Number of Dominant Species Across All Strata:	2	(B)
Percent of dominant Species That Are OBL, FACW, or FAC:	50.0%	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	35	x 3 =	105
FACU species	62	x 4 =	248
UPL species	45	x 5 =	225
Column Totals:	142 (A)		578 (B)

Prevalence Index = B/A = 4.070

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☐ **Dominance Test is > 50%**
- ☐ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Hydrophytic Vegetation Present? Yes ( ) No (●)

Remarks: (Include photo numbers here or on a separate sheet.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: C-1U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0-14	10YR 4/4	100%					Loam	Rocky below

[1] Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2]Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ◉

Remarks:

Hydrology

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ○	No ◉	Depth (inches):
Water Table Present?	Yes ○	No ◉	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes ○	No ◉	Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 27-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** C-1W

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Swale

Soil Map Unit Name: Collamer silt loam, 2 to 6 percent slopes **Cover Type:** EW

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (●) No ○ **(If no, explain in Remarks.)**

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes (●) No ○

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** **(If needed, explain any answers in Remarks.)**

Summary of Findings - Attach site map showing sampling point locations, transects, important features, et

Hydrophytic Vegetation Present?	Yes (●) No ○	**Is the Sampled Area within a Wetland?** Yes (●) No ○
Hydric Soil Present?	Yes (●) No ○	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes (●) No ○	

Remarks:
Flag # C-3, Photo # 12S

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1. Populus deltoides	10	☑	66.7%	FAC
2. Fraxinus pennsylvanica	5	☑	33.3%	FACW
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	15	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15' Radius)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' Radius)				
1. Phragmites australis	100	☑	100.0%	FACW
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	100	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC:	3	(A)
Total Number of Dominant Species Across All Strata:	3	(B)
Percent of dominant Species That Are OBL, FACW, or FAC:	100.0%	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:		
OBL species	0	x 1 =	0	
FACW species	105	x 2 =	210	
FAC species	10	x 3 =	30	
FACU species	0	x 4 =	0	
UPL species	0	x 5 =	0	
Column Totals:	115	(A)	240	(B)

Prevalence Index = B/A = 2.087

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☑ **Dominance Test is > 50%**
- ☑ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Hydrophytic Vegetation Present? Yes (●) No ○

Remarks: (Include photo numbers here or on a separate sheet.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: C-1W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		Matrix %	Redox Color (moist)		Redox %	Type [1]	Loc [2]	Texture	Remarks
0-12	10YR	3/2	95%	7.5YR	4/6	5%			Silt Loam	
12-16+	10YR	4/1	90%	7.5YR	4/4	10%			Silty Clay Loam	

[1] Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2]Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks:

Hydrology

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☑ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ◉ No ○ Depth (inches): 3

Water Table Present? Yes ○ No ◉ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 27-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** D-1U

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Hillside

Soil Map Unit Name: Dunkirk silt loam, rolling **Cover Type:** OF

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ◉ No ○ **(If no, explain in Remarks.)**

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ◉ No ○

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** **(If needed, explain any answers in Remarks.)**

Summary of Findings - Attach site map showing sampling point locations, transects, important features, et

Hydrophytic Vegetation Present?	Yes ○ No ◉	**Is the Sampled Area within a Wetland?** Yes ○ No ◉
Hydric Soil Present?	Yes ○ No ◉	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes ○ No ◉	

Remarks:
Flag # D-106, Photo # 17S

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30' Radius)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15' Radius)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' Radius)				
1. Symphyotrichum novae-angliae	20	☐	14.3%	FACW
2. Daucus carota	10	☐	7.1%	UPL
3. Solidago canadensis	30	☑	21.4%	FACU
4. Galium mollugo	5	☐	3.6%	UPL
5. Achillea millefolium	5	☐	3.6%	FACU
6. Plantago major	15	☐	10.7%	FACU
7. Taraxacum officinale	10	☐	7.1%	FACU
8. Carex sp.	45	☑	32.1%	FAC
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	140	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC:	1	(A)
Total Number of Dominant Species Across All Strata:	2	(B)
Percent of dominant Species That Are OBL, FACW, or FAC:	50.0%	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:		
OBL species	0	x 1 =	0	
FACW species	20	x 2 =	40	
FAC species	45	x 3 =	135	
FACU species	60	x 4 =	240	
UPL species	15	x 5 =	75	
Column Totals:	140	(A)	490	(B)

Prevalence Index = B/A = 3.500

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☐ **Dominance Test is > 50%**
- ☐ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Hydrophytic Vegetation Present? Yes ○ No ◉

Remarks: (Include photo numbers here or on a separate sheet.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: D-1U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		Matrix %	Redox Features Color (moist)		Redox %	Type [1]	Loc²	Texture	Remarks
0-10	10YR	4/3	100%						Silty Clay Loam	
10-20+	10YR	4/4	100%						Silty Clay Loam	

[1] Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ²Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ◉

Remarks:

Hydrology

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 27-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** D-1W

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Swale

Soil Map Unit Name: Dunkirk silt loam, rolling **Cover Type:** WM

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) **(If no, explain in Remarks.)**

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes (●) No ( )

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** **(If needed, explain any answers in Remarks.)**

Summary of Findings - Attach site map showing sampling point locations, transects, important features, et

Hydrophytic Vegetation Present?	Yes (●) No ( )	**Is the Sampled Area within a Wetland?** Yes (●) No ( )
Hydric Soil Present?	Yes (●) No ( )	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes (●) No ( )	

Remarks:
Flag # D-2, Photo # 16NW

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15' Radius)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' Radius)				
1. Phalaris arundinacea	90	☑	85.7%	FACW
2. Carex sp.	10	☐	9.5%	FAC
3. Ranunculus sp.	5	☐	4.8%	FAC
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	105	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC:	1	(A)
Total Number of Dominant Species Across All Strata:	1	(B)
Percent of dominant Species That Are OBL, FACW, or FAC:	100.0%	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:		
OBL species	0	x 1 =	0	
FACW species	90	x 2 =	180	
FAC species	15	x 3 =	45	
FACU species	0	x 4 =	0	
UPL species	0	x 5 =	0	
Column Totals:	105	(A)	225	(B)

Prevalence Index = B/A = 2.143

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☑ Dominance Test is > 50%
- ☑ Prevalence Index is ≤3.0 [1]
- ☐ Morphological Adaptations [1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation [1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes (●) No ( )

Remarks: (Include photo numbers here or on a separate sheet.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: D-1W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		Matrix %	Redox Features Color (moist)		Redox %	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR	3/2	80%	10YR	4/6	20%			Silty Clay Loam	
10-16+	10YR	6/2	80%	10YR	4/6	20%			Clay Loam	

[1] Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2]Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks:

Hydrology

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☑ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☑ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ◉	No ○	Depth (inches): 1
Water Table Present?	Yes ○	No ◉	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes ◉	No ○	Depth (inches):

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 27-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** D-2U

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Hillside

Soil Map Unit Name: Dunkirk silt loam, rolling **Cover Type:** OF

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) **(If no, explain in Remarks.)**

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes (●) No ( )

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** **(If needed, explain any answers in Remarks.)**

Summary of Findings - Attach site map showing sampling point locations, transects, important features, et

Hydrophytic Vegetation Present?	Yes ( ) No (●)	**Is the Sampled Area within a Wetland?** Yes ( ) No (●)
Hydric Soil Present?	Yes ( ) No (●)	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes ( ) No (●)	

Remarks:
Flag # D-210, Photo # 21SE

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30' Radius)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15' Radius)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' Radius)				
1. Solidago canadensis	85	☑	68.5%	FACU
2. Symphyotrichum novae-angliae	10	☐	8.1%	FACW
3. Toxicodendron radicans	5	☐	4.0%	FAC
4. Asclepias syriaca	15	☐	12.1%	UPL
5. Vitis riparia	2	☐	1.6%	FAC
6. Rubus idaeus	5	☐	4.0%	FACU
7. Achillea millefolium	2	☐	1.6%	FACU
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	124	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC:	0	(A)
Total Number of Dominant Species Across All Strata:	1	(B)
Percent of dominant Species That Are OBL, FACW, or FAC:	0.0%	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:		
OBL species	0	x 1 =	0	
FACW species	10	x 2 =	20	
FAC species	7	x 3 =	21	
FACU species	92	x 4 =	368	
UPL species	15	x 5 =	75	
Column Totals:	124	(A)	484	(B)

Prevalence Index = B/A = 3.903

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☐ **Dominance Test is > 50%**
- ☐ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Hydrophytic Vegetation Present? Yes ( ) No (●)

Remarks: (Include photo numbers here or on a separate sheet.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: D-2U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		Matrix %	Redox Features Color (moist)		Redox %	Type [1]	Loc²	Texture	Remarks
0-13	10YR	4/3	100%						Silt Loam	
13-20	10YR	5/3	100%						Silt Loam	Rocky below

[1] Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ²Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ◉

Remarks:

Hydrology

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 27-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** D-2W

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Toeslope

Soil Map Unit Name: Wayland silt loam **Cover Type:** DFW

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ◉ No ○ **(If no, explain in Remarks.)**

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ◉ No ○

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** **(If needed, explain any answers in Remarks.)**

Summary of Findings - Attach site map showing sampling point locations, transects, important features, et

Hydrophytic Vegetation Present?	Yes ◉ No ○	**Is the Sampled Area within a Wetland?** Yes ◉ No ○
Hydric Soil Present?	Yes ◉ No ○	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes ◉ No ○	

Remarks:
Flag # D-210, Photo # 22

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30' Radius)				
1. Acer saccharinum	85	☑	85.0%	FACW
2. Fraxinus pennsylvanica	15	☐	15.0%	FACW
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	100	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15' Radius)				
1. Rhamnus cathartica	10	☑	37.0%	FAC
2. Cornus amomum	15	☑	55.6%	FACW
3. Salix sp.	2	☐	7.4%	FACW
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	27	= Total Cover		
Herb Stratum (Plot size: 5' Radius)				
1. Onoclea sensibilis	35	☑	63.6%	FACW
2. Iris versicolor	5	☐	9.1%	OBL
3. Lysimachia nummularia	15	☑	27.3%	FACW
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	55	= Total Cover		
Woody Vine Stratum (Plot size: 30' Radius)				
1. Vitis riparia	15	☐	100.0%	FAC
2.	0	☐	0.0%	
	15	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC:	6	(A)
Total Number of Dominant Species Across All Strata:	6	(B)
Percent of dominant Species That Are OBL, FACW, or FAC:	100.0%	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	167	x 2 =	334
FAC species	25	x 3 =	75
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	197 (A)		414 (B)

Prevalence Index = B/A = 2.102

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☑ **Dominance Test is > 50%**
- ☑ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations [1] (Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation [1] (Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Hydrophytic Vegetation Present? Yes ◉ No ○

Remarks: (Include photo numbers here or on a separate sheet.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: D-2W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		Matrix %	Redox Features Color (moist)		Redox %	Type [1]	Loc [2]	Texture	Remarks
0-10	10YR	3/2	100%						Loam	
10-20	10YR	5/1	90%	10YR	4/4	10%	C	M	Silty Clay Loam	

[1] Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2] Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks:

Hydrology

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☑ Water Marks (B1)
- ☑ Sediment Deposits (B2)
- ☑ Drift deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☑ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☑ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 27-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** E-1W

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Swale

Soil Map Unit Name: Collamer silt loam, 2 to 6 percent slopes **Cover Type:** DFW

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) **(If no, explain in Remarks.)**

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes (●) No ( )

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** **(If needed, explain any answers in Remarks.)**

Summary of Findings - Attach site map showing sampling point locations, transects, important features, et

Hydrophytic Vegetation Present?	Yes (●) No ( )	**Is the Sampled Area within a Wetland?** Yes (●) No ( )
Hydric Soil Present?	Yes (●) No ( )	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes (●) No ( )	

Remarks:
Flag # E-9, Photo # 28S

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30' Radius)				
1. Fraxinus pennsylvanica	40	☑	80.0%	FACW
2. Ulmus americana	5	☐	10.0%	FACW
3. Populus tremuloides	5	☐	10.0%	FACU
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	50	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15' Radius)				
1. Cornus amomum	20	☑	100.0%	FACW
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	20	= Total Cover		
Herb Stratum (Plot size: 5' Radius)				
1. Erigeron annuus	30	☑	30.9%	FACU
2. Lythrum salicaria	15	☐	15.5%	OBL
3. Epilobium hirsutum	50	☑	51.5%	FACW
4. Impatiens capensis	2	☐	2.1%	FACW
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	97	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC:	3	(A)
Total Number of Dominant Species Across All Strata:	4	(B)
Percent of dominant Species That Are OBL, FACW, or FAC:	75.0%	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	15	x 1 =	15
FACW species	117	x 2 =	234
FAC species	0	x 3 =	0
FACU species	35	x 4 =	140
UPL species	0	x 5 =	0
Column Totals:	167 (A)		389 (B)

Prevalence Index = B/A = 2.329

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☑ **Dominance Test is > 50%**
- ☑ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Hydrophytic Vegetation Present? Yes (●) No ( )

Remarks: (Include photo numbers here or on a separate sheet.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: E-1W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		Matrix %	Redox Features Color (moist)		Redox %	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR	3/2	100%						Loam	Organic material
3-18+	10YR	4/2	95%	10YR	3/3	5%	C	M	Silty Clay Loam	

[1] Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2]Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- [ ] Histosol (A1)
- [ ] Histic Epipedon (A2)
- [ ] Black Histic (A3) (except in MLRA 143)
- [ ] Hydrogen Sulfide (A4)
- [ ] Stratified Layers (A5)
- [ ] Depleted Below Dark Surface (A11)
- [ ] Thick Dark Surface (A12)
- [ ] Sandy Muck Mineral (S1)
- [ ] Sandy Gleyed Matrix (S4)
- [ ] Sandy Redox (S5)
- [ ] Stripped Matrix (S6) (Drop in LRR R?
- [ ] Dark Surface (S7) (MLRA 149B of LRR S)
- [ ] Polyvalue Below Surface (S8) (LRR R, S)
- [ ] Thin Dark Surface (S9) (LRR R, S)
- [ ] Loamy Mucky Mineral (F1)
- [ ] Loamy Gleyed Matrix (F2)
- [x] Depleted Matrix (F3)
- [ ] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [ ] Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- [ ] 2 cm Muck (A10) (LRR K, L, S)
- [ ] Coast Prairie Redox (A16) (LRR K, L, R)
- [ ] 5 cm Mucky Peat or Peat (S3)
- [ ] Dark Surface (S7) (LRR K, L)
- [ ] Polyvalue Below Surface (S8) (LRR K, L)
- [ ] Thin Dark Surface (S9) (LRR K, L)
- [ ] Iron-Manganese Masses (F12)
- [ ] Piedmont Floodplain Soils (F19)
- [ ] Red Parent Material (TF2)
- [ ] Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes (●) No ( )

Remarks:

Hydrology

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [ ] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Water-Stained Leaves (B9)
- [ ] Aquatic Fauna (B13)
- [ ] Marl Deposits (B15)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Oxidized Rhizospheres along Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Recent Iron Reduction in Tilled Soils (C6)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [x] Drainage Patterns (B10)
- [ ] Moss Trim Lines (B16)
- [ ] Dry Season Water Table (C2)
- [ ] Crayfish Burrows (C8)
- [ ] Saturation Visible on Aerial Imagery (C9)
- [ ] Stunted or Stressed Plants (D1)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4
- [x] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ( ) No (●) Depth (inches):

Water Table Present? Yes ( ) No (●) Depth (inches):

Saturation Present? (includes capillary fringe) Yes ( ) No (●) Depth (inches):

Wetland Hydrology Present? Yes (●) No ( )

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 27-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** F-1W

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Flat

Soil Map Unit Name: Collamer silt loam, 2 to 6 percent slopes **Cover Type:** EW

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ● No ○ **(If no, explain in Remarks.)**

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ● No ○

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** **(If needed, explain any answers in Remarks.)**

Summary of Findings - Attach site map showing sampling point locations, transects, important features, et

Hydrophytic Vegetation Present?	Yes ● No ○	**Is the Sampled Area within a Wetland?** Yes ● No ○
Hydric Soil Present?	Yes ● No ○	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes ● No ○	

Remarks:
Flag #F-5, Photo # 33NW

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30' Radius)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15' Radius)				
1. Cornus amomum	10	☑	100.0%	FACW
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	10	= Total Cover		
Herb Stratum (Plot size: 5' Radius)				
1. Typha angustifolia	60	☑	52.2%	OBL
2. Eutrochium maculatum	10	☐	8.7%	OBL
3. Symphyotrichum novi-belgii	30	☑	26.1%	FACW
4. Onoclea sensibilis	15	☐	13.0%	FACW
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	115	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	70	x 1 =	70
FACW species	55	x 2 =	110
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	125 (A)		180 (B)

Prevalence Index = B/A = 1.440

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☑ **Dominance Test is > 50%**
- ☑ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Hydrophytic Vegetation Present? Yes ● No ○

Remarks: (Include photo numbers here or on a separate sheet.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: F-1W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		Matrix %	Redox Features Color (moist)		Redox %	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR	3/2	100%						Silt Loam	
10-14	10YR	4/2	85%	10YR	5/6	15%			Clay Loam	
14-16+	10YR	5/2	60%	10YR	5/6	40%			Clay Loam	

[1] Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2]Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- [ ] Histosol (A1)
- [ ] Histic Epipedon (A2)
- [ ] Black Histic (A3) (except in MLRA 143)
- [ ] Hydrogen Sulfide (A4)
- [ ] Stratified Layers (A5)
- [ ] Depleted Below Dark Surface (A11)
- [ ] Thick Dark Surface (A12)
- [ ] Sandy Muck Mineral (S1)
- [ ] Sandy Gleyed Matrix (S4)
- [ ] Sandy Redox (S5)
- [ ] Stripped Matrix (S6) (Drop in LRR R?
- [ ] Dark Surface (S7) (MLRA 149B of LRR S)
- [ ] Polyvalue Below Surface (S8) (LRR R, S)
- [ ] Thin Dark Surface (S9) (LRR R, S)
- [ ] Loamy Mucky Mineral (F1)
- [ ] Loamy Gleyed Matrix (F2)
- [x] Depleted Matrix (F3)
- [ ] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [ ] Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- [ ] 2 cm Muck (A10) (LRR K, L, S)
- [ ] Coast Prairie Redox (A16) (LRR K, L, R)
- [ ] 5 cm Mucky Peat or Peat (S3)
- [ ] Dark Surface (S7) (LRR K, L)
- [ ] Polyvalue Below Surface (S8) (LRR K, L)
- [ ] Thin Dark Surface (S9) (LRR K, L)
- [ ] Iron-Manganese Masses (F12)
- [ ] Piedmont Floodplain Soils (F19)
- [ ] Red Parent Material (TF2)
- [ ] Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes (●) No ( )

Remarks:

Hydrology

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [x] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Water-Stained Leaves (B9)
- [ ] Aquatic Fauna (B13)
- [ ] Marl Deposits (B15)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Oxidized Rhizospheres along Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Recent Iron Reduction in Tilled Soils (C6)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Drainage Patterns (B10)
- [ ] Moss Trim Lines (B16)
- [ ] Dry Season Water Table (C2)
- [ ] Crayfish Burrows (C8)
- [x] Saturation Visible on Aerial Imagery (C9)
- [ ] Stunted or Stressed Plants (D1)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4
- [x] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ( )	No (●)	Depth (inches):
Water Table Present?	Yes ( )	No (●)	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes (●)	No ( )	Depth (inches): 2

Wetland Hydrology Present? Yes (●) No ( )

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 27-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** G-1W

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Flat

Soil Map Unit Name: Collamer silt loam, 2 to 6 percent slopes **Cover Type:** SSW

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) **(If no, explain in Remarks.)**

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes (●) No ( )

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** **(If needed, explain any answers in Remarks.)**

Summary of Findings - Attach site map showing sampling point locations, transects, important features, et

Hydrophytic Vegetation Present?	Yes (●) No ( )	**Is the Sampled Area within a Wetland?** Yes (●) No ( )
Hydric Soil Present?	Yes (●) No ( )	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes (●) No ( )	

Remarks:
Flag # G-4, Photo # 36NE

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30' Radius)				
1. Fraxinus pennsylvanica	15	☑	100.0%	FACW
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	15	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15' Radius)				
1. Fraxinus pennsylvanica	5	☑	33.3%	FACW
2. Salix sp.	10	☑	66.7%	FACW
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	15	= Total Cover		
Herb Stratum (Plot size: 5' Radius)				
1. Ulmus americana	5	☐	4.3%	FACW
2. Lysimachia nummularia	35	☑	30.4%	FACW
3. Eutrochium maculatum	5	☐	4.3%	OBL
4. Fraxinus pennsylvanica	25	☑	21.7%	FACW
5. Impatiens capensis	5	☐	4.3%	FACW
6. Aster sp.	10	☐	8.7%	FAC
7. Lythrum salicaria	5	☐	4.3%	OBL
8. Aster sp.	25	☑	21.7%	FAC
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	115	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC:	6	(A)
Total Number of Dominant Species Across All Strata:	6	(B)
Percent of dominant Species That Are OBL, FACW, or FAC:	100.0%	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	100	x 2 =	200
FAC species	35	x 3 =	105
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	145 (A)		315 (B)

Prevalence Index = B/A = 2.172

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☑ **Dominance Test is > 50%**
- ☑ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Hydrophytic Vegetation Present? Yes (●) No ( )

Remarks: (Include photo numbers here or on a separate sheet.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: G-1W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		Matrix %	Redox Features Color (moist)		Redox %	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR	3/2	100%						Silt Loam	
3-16+	10YR	4/2	95%	10YR	5/2	5%	D	M	Silt Loam	

[1] Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2]Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- [ ] Histosol (A1)
- [ ] Histic Epipedon (A2)
- [ ] Black Histic (A3) (except in MLRA 143)
- [ ] Hydrogen Sulfide (A4)
- [ ] Stratified Layers (A5)
- [ ] Depleted Below Dark Surface (A11)
- [ ] Thick Dark Surface (A12)
- [ ] Sandy Muck Mineral (S1)
- [ ] Sandy Gleyed Matrix (S4)
- [ ] Sandy Redox (S5)
- [ ] Stripped Matrix (S6) (Drop in LRR R?
- [ ] Dark Surface (S7) (MLRA 149B of LRR S)
- [ ] Polyvalue Below Surface (S8) (LRR R, S)
- [ ] Thin Dark Surface (S9) (LRR R, S)
- [ ] Loamy Mucky Mineral (F1)
- [ ] Loamy Gleyed Matrix (F2)
- [x] Depleted Matrix (F3)
- [ ] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [ ] Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- [ ] 2 cm Muck (A10) (LRR K, L, S)
- [ ] Coast Prairie Redox (A16) (LRR K, L, R)
- [ ] 5 cm Mucky Peat or Peat (S3)
- [ ] Dark Surface (S7) (LRR K, L)
- [ ] Polyvalue Below Surface (S8) (LRR K, L)
- [ ] Thin Dark Surface (S9) (LRR K, L)
- [ ] Iron-Manganese Masses (F12)
- [ ] Piedmont Floodplain Soils (F19)
- [ ] Red Parent Material (TF2)
- [ ] Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes (●) No ( )

Remarks:

Hydrology

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [ ] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Water-Stained Leaves (B9)
- [ ] Aquatic Fauna (B13)
- [ ] Marl Deposits (B15)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Oxidized Rhizospheres along Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Recent Iron Reduction in Tilled Soils (C6)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [x] Drainage Patterns (B10)
- [ ] Moss Trim Lines (B16)
- [ ] Dry Season Water Table (C2)
- [ ] Crayfish Burrows (C8)
- [ ] Saturation Visible on Aerial Imagery (C9)
- [ ] Stunted or Stressed Plants (D1)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4
- [x] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ( ) No (●) Depth (inches):

Water Table Present? Yes ( ) No (●) Depth (inches):

Saturation Present? (includes capillary fringe) Yes ( ) No (●) Depth (inches):

Wetland Hydrology Present? Yes (●) No ( )

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 27-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** H-1W

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Flat

Soil Map Unit Name: Collamer silt loam, 2 to 6 percent slopes **Cover Type:** SSW

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) **(If no, explain in Remarks.)**

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes (●) No ( )

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** **(If needed, explain any answers in Remarks.)**

Summary of Findings - Attach site map showing sampling point locations, transects, important features, et

Hydrophytic Vegetation Present?	Yes (●) No ( )	**Is the Sampled Area within a Wetland?** Yes (●) No ( )
Hydric Soil Present?	Yes (●) No ( )	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes (●) No ( )	

Remarks:
Flag # H-3, Photo # 38-NE

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30' Radius)			
1. Fraxinus pennsylvanica	10	☑ 100.0%	FACW
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	10	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' Radius)			
1. Cornus amomum	10	☑ 33.3%	FACW
2. Fraxinus pennsylvanica	20	☑ 66.7%	FACW
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	30	= Total Cover	
Herb Stratum (Plot size: 5' Radius)			
1. Epilobium hirsutum	35	☑ 27.6%	FACW
2. Toxicodendron radicans	15	☐ 11.8%	FAC
3. Cornus amomum	15	☐ 11.8%	FACW
4. Fraxinus pennsylvanica	15	☐ 11.8%	FACW
5. Aster sp.	45	☑ 35.4%	FAC
6. Fragaria virginiana	2	☐ 1.6%	FACU
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	127	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC:	5	(A)
Total Number of Dominant Species Across All Strata:	5	(B)
Percent of dominant Species That Are OBL, FACW, or FAC:	100.0%	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:		
OBL species	0	x 1 =	0	
FACW species	105	x 2 =	210	
FAC species	60	x 3 =	180	
FACU species	2	x 4 =	8	
UPL species	0	x 5 =	0	
Column Totals:	167	(A)	398	(B)

Prevalence Index = B/A = 2.383

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☑ **Dominance Test is > 50%**
- ☑ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Hydrophytic Vegetation Present? Yes (●) No ( )

Remarks: (Include photo numbers here or on a separate sheet.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: H-1W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		Matrix %	Redox Features Color (moist)		Redox %	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR	3/2	95%	10YR	4/4	5%	C	M	Silt Loam	
8-18+	10YR	4/2	95%	10YR	4/4	5%	C	M	Silt Loam	

[1] Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2]Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- [ ] Histosol (A1)
- [ ] Histic Epipedon (A2)
- [ ] Black Histic (A3) (except in MLRA 143)
- [ ] Hydrogen Sulfide (A4)
- [ ] Stratified Layers (A5)
- [ ] Depleted Below Dark Surface (A11)
- [ ] Thick Dark Surface (A12)
- [ ] Sandy Muck Mineral (S1)
- [ ] Sandy Gleyed Matrix (S4)
- [ ] Sandy Redox (S5)
- [ ] Stripped Matrix (S6) (Drop in LRR R?
- [ ] Dark Surface (S7) (MLRA 149B of LRR S)
- [ ] Polyvalue Below Surface (S8) (LRR R, S)
- [ ] Thin Dark Surface (S9) (LRR R, S)
- [ ] Loamy Mucky Mineral (F1)
- [ ] Loamy Gleyed Matrix (F2)
- [x] Depleted Matrix (F3)
- [ ] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [ ] Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- [ ] 2 cm Muck (A10) (LRR K, L, S)
- [ ] Coast Prairie Redox (A16) (LRR K, L, R)
- [ ] 5 cm Mucky Peat or Peat (S3)
- [ ] Dark Surface (S7) (LRR K, L)
- [ ] Polyvalue Below Surface (S8) (LRR K, L)
- [ ] Thin Dark Surface (S9) (LRR K, L)
- [ ] Iron-Manganese Masses (F12)
- [ ] Piedmont Floodplain Soils (F19)
- [ ] Red Parent Material (TF2)
- [ ] Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes (●) No ( )

Remarks:

Hydrology

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [x] Surface Water (A1)
- [ ] High Water Table (A2)
- [x] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Water-Stained Leaves (B9)
- [ ] Aquatic Fauna (B13)
- [ ] Marl Deposits (B15)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Oxidized Rhizospheres along Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Recent Iron Reduction in Tilled Soils (C6)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Drainage Patterns (B10)
- [ ] Moss Trim Lines (B16)
- [ ] Dry Season Water Table (C2)
- [ ] Crayfish Burrows (C8)
- [ ] Saturation Visible on Aerial Imagery (C9)
- [ ] Stunted or Stressed Plants (D1)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4
- [x] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes (●)	No ( )	Depth (inches):
Water Table Present?	Yes ( )	No (●)	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes (●)	No ( )	Depth (inches):

Wetland Hydrology Present? Yes (●) No ( )

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 28-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** I-1U

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Flat

Soil Map Unit Name: Dunkirk silt loam, rolling **Cover Type:** DFU

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) **(If no, explain in Remarks.)**

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes (●) No ( )

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** **(If needed, explain any answers in Remarks.)**

Summary of Findings - Attach site map showing sampling point locations, transects, important features, et

Hydrophytic Vegetation Present?	Yes (●) No ( )	**Is the Sampled Area within a Wetland?** Yes ( ) No (●)
Hydric Soil Present?	Yes ( ) No (●)	
Wetland Hydrology Present?	Yes ( ) No (●)	If yes, optional Wetland Site ID:

Remarks:
Flag # I-114, Photo # 49S

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30' Radius)				
1. Betula alleghaniensis	85	✓	50.0%	FAC
2. Carya ovata	15	☐	8.8%	FACU
3. Carya cordiformis	25	✓	14.7%	FAC
4. Acer rubrum	20	☐	11.8%	FAC
5. Tsuga canadensis	25	✓	14.7%	FACU
	170	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15' Radius)				
1. Quercus rubra	10	✓	66.7%	FACU
2. Ulmus americana	5	✓	33.3%	FACW
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	15	= Total Cover		
Herb Stratum (Plot size: 5' Radius)				
1. Carya cordiformis	10	✓	22.2%	FAC
2. Acer rubrum	10	✓	22.2%	FAC
3. Prunus serotina	5	☐	11.1%	FACU
4. Dryopteris intermedia	5	☐	11.1%	FAC
5. Acer saccharum	5	☐	11.1%	FACU
6. Tilia americana	10	✓	22.2%	FACU
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	45	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC:	5	(A)
Total Number of Dominant Species Across All Strata:	8	(B)
Percent of dominant Species That Are OBL, FACW, or FAC:	62.5%	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:		
OBL species	0	x 1 =	0	
FACW species	5	x 2 =	10	
FAC species	155	x 3 =	465	
FACU species	70	x 4 =	280	
UPL species	0	x 5 =	0	
Column Totals:	230	(A)	755	(B)

Prevalence Index = B/A = 3.283

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ✓ **Dominance Test is > 50%**
- ☐ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Hydrophytic Vegetation Present? Yes (●) No ( )

Remarks: (Include photo numbers here or on a separate sheet.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: I-1U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		Matrix %	Redox Features Color (moist)		Redox %	Type[1]	Loc[2]	Texture	Remarks
0-11	10YR	4/3	100%						Sandy Loam	
11-18+	10YR	5/6	100%						Sandy Loam	

[1] Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2]Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- [ ] Histosol (A1)
- [ ] Histic Epipedon (A2)
- [ ] Black Histic (A3) (except in MLRA 143)
- [ ] Hydrogen Sulfide (A4)
- [ ] Stratified Layers (A5)
- [ ] Depleted Below Dark Surface (A11)
- [ ] Thick Dark Surface (A12)
- [ ] Sandy Muck Mineral (S1)
- [ ] Sandy Gleyed Matrix (S4)
- [ ] Sandy Redox (S5)
- [ ] Stripped Matrix (S6) (Drop in LRR R?
- [ ] Dark Surface (S7) (MLRA 149B of LRR S)
- [ ] Polyvalue Below Surface (S8) (LRR R, S)
- [ ] Thin Dark Surface (S9) (LRR R, S)
- [ ] Loamy Mucky Mineral (F1)
- [ ] Loamy Gleyed Matrix (F2)
- [ ] Depleted Matrix (F3)
- [ ] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [ ] Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- [ ] 2 cm Muck (A10) (LRR K, L, S)
- [ ] Coast Prairie Redox (A16) (LRR K, L, R)
- [ ] 5 cm Mucky Peat or Peat (S3)
- [ ] Dark Surface (S7) (LRR K, L)
- [ ] Polyvalue Below Surface (S8) (LRR K, L)
- [ ] Thin Dark Surface (S9) (LRR K, L)
- [ ] Iron-Manganese Masses (F12)
- [ ] Piedmont Floodplain Soils (F19)
- [ ] Red Parent Material (TF2)
- [ ] Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ●

Remarks:

Hydrology

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [ ] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Water-Stained Leaves (B9)
- [ ] Aquatic Fauna (B13)
- [ ] Marl Deposits (B15)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Oxidized Rhizospheres along Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Recent Iron Reduction in Tilled Soils (C6)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Drainage Patterns (B10)
- [ ] Moss Trim Lines (B16)
- [ ] Dry Season Water Table (C2)
- [ ] Crayfish Burrows (C8)
- [ ] Saturation Visible on Aerial Imagery (C9)
- [ ] Stunted or Stressed Plants (D1)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4
- [ ] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ● Depth (inches):

Water Table Present? Yes ○ No ● Depth (inches):

Saturation Present? (includes capillary fringe) Yes ○ No ● Depth (inches):

Wetland Hydrology Present? Yes ○ No ●

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 28-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** I-1W

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Swale

Soil Map Unit Name: Fluvaquents, frequently flooded **Cover Type:** SSW

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) **(If no, explain in Remarks.)**

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes (●) No ( )

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** **(If needed, explain any answers in Remarks.)**

Summary of Findings - Attach site map showing sampling point locations, transects, important features, et

Hydrophytic Vegetation Present?	Yes (●) No ( )	**Is the Sampled Area within a Wetland?** Yes (●) No ( )
Hydric Soil Present?	Yes (●) No ( )	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes (●) No ( )	

Remarks:
Flag # I-114, Photo # 47SE

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1. Populus deltoides	10	☑	100.0%	FAC
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	10	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15' Radius)				
1. Cornus amomum	40	☑	61.5%	FACW
2. Salix sp.	20	☑	30.8%	FACW
3. Tilia americana	5	☐	7.7%	FACU
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	65	= Total Cover		
Herb Stratum (Plot size: 5' Radius)				
1. Cornus amomum	10	☑	25.0%	FACW
2. Onoclea sensibilis	10	☑	25.0%	FACW
3. Toxicodendron radicans	15	☑	37.5%	FAC
4. Acer rubrum	5	☐	12.5%	FAC
5. Boehmeria cylindrica	0	☐	0.0%	OBL
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	40	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC:	6	(A)
Total Number of Dominant Species Across All Strata:	6	(B)
Percent of dominant Species That Are OBL, FACW, or FAC:	100.0%	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:		
OBL species	0	x 1 =	0	
FACW species	80	x 2 =	160	
FAC species	30	x 3 =	90	
FACU species	5	x 4 =	20	
UPL species	0	x 5 =	0	
Column Totals:	115	(A)	270	(B)

Prevalence Index = B/A = 2.348

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☑ **Dominance Test is > 50%**
- ☑ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations [1] (Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation [1] (Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Hydrophytic Vegetation Present? Yes (●) No ( )

Remarks: (Include photo numbers here or on a separate sheet.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: I-1W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		Matrix %	Redox Features Color (moist)		Redox %	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR	3/2	85%	7.5YR	4/6	15%			Silty Clay Loam	
10--16+	10YR	4/1	85%	7.5YR	4/6	15%			Silty Clay Loam	

[1] Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2]Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- [ ] Histosol (A1)
- [ ] Histic Epipedon (A2)
- [ ] Black Histic (A3) (except in MLRA 143)
- [ ] Hydrogen Sulfide (A4)
- [ ] Stratified Layers (A5)
- [ ] Depleted Below Dark Surface (A11)
- [ ] Thick Dark Surface (A12)
- [ ] Sandy Muck Mineral (S1)
- [ ] Sandy Gleyed Matrix (S4)
- [ ] Sandy Redox (S5)
- [ ] Stripped Matrix (S6) (Drop in LRR R?
- [ ] Dark Surface (S7) (MLRA 149B of LRR S)
- [ ] Polyvalue Below Surface (S8) (LRR R, S)
- [ ] Thin Dark Surface (S9) (LRR R, S)
- [ ] Loamy Mucky Mineral (F1)
- [ ] Loamy Gleyed Matrix (F2)
- [x] Depleted Matrix (F3)
- [x] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [ ] Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- [ ] 2 cm Muck (A10) (LRR K, L, S)
- [ ] Coast Prairie Redox (A16) (LRR K, L, R)
- [ ] 5 cm Mucky Peat or Peat (S3)
- [ ] Dark Surface (S7) (LRR K, L)
- [ ] Polyvalue Below Surface (S8) (LRR K, L)
- [ ] Thin Dark Surface (S9) (LRR K, L)
- [ ] Iron-Manganese Masses (F12)
- [ ] Piedmont Floodplain Soils (F19)
- [ ] Red Parent Material (TF2)
- [ ] Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes (●) No ( )

Remarks:

Hydrology

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [x] Surface Water (A1)
- [ ] High Water Table (A2)
- [x] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [x] Water-Stained Leaves (B9)
- [ ] Aquatic Fauna (B13)
- [ ] Marl Deposits (B15)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Oxidized Rhizospheres along Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Recent Iron Reduction in Tilled Soils (C6)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [x] Drainage Patterns (B10)
- [ ] Moss Trim Lines (B16)
- [ ] Dry Season Water Table (C2)
- [ ] Crayfish Burrows (C8)
- [ ] Saturation Visible on Aerial Imagery (C9)
- [ ] Stunted or Stressed Plants (D1)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4
- [x] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes (●)	No ( )	Depth (inches): 3
Water Table Present?	Yes ( )	No (●)	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes (●)	No ( )	Depth (inches):

Wetland Hydrology Present? Yes (●) No ( )

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 28-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** J-1W

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Ditch

Soil Map Unit Name: Collamer silt loam, 2 to 6 percent slopes **Cover Type:** SSW/Ditch

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) **(If no, explain in Remarks.)**

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes (●) No ( )

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** **(If needed, explain any answers in Remarks.)**

Summary of Findings - Attach site map showing sampling point locations, transects, important features, et

Hydrophytic Vegetation Present?	Yes (●) No ( )	**Is the Sampled Area within a Wetland?** Yes (●) No ( )
Hydric Soil Present?	Yes (●) No ( )	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes (●) No ( )	

Remarks:
Flag # J-3, Photo # 50S

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' Radius)			
1. Salix sp.	35	☑ 58.3%	FACW
2. Cornus amomum	25	☑ 41.7%	FACW
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	60	= Total Cover	
Herb Stratum (Plot size: 5' Radius)			
1. Poa sp.	65	☑ 60.2%	FAC
2. Salix sp.	15	☐ 13.9%	FACW
3. Viburnum dentatum	5	☐ 4.6%	FAC
4. Symphyotrichum novae-angliae	10	☐ 9.3%	FACW
5. Fragaria virginiana	2	☐ 1.9%	FACU
6. Lonicera sp.	2	☐ 1.9%	FACU
7. Lythrum salicaria	5	☐ 4.6%	OBL
8. Galium palustre	2	☐ 1.9%	OBL
9. Equisetum arvense	2	☐ 1.9%	FAC
10.	0	☐ 0.0%	
	108	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC:	3	(A)
Total Number of Dominant Species Across All Strata:	3	(B)
Percent of dominant Species That Are OBL, FACW, or FAC:	100.0%	(A/B)

Prevalence Index worksheet:

Total % Cover of:			Multiply by:	
OBL species	7	x 1 =	7	
FACW species	85	x 2 =	170	
FAC species	72	x 3 =	216	
FACU species	4	x 4 =	16	
UPL species	0	x 5 =	0	
Column Totals:	168	(A)	409	(B)

Prevalence Index = B/A = 2.435

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☑ **Dominance Test is > 50%**
- ☑ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Hydrophytic Vegetation Present? Yes (●) No ( )

Remarks: (Include photo numbers here or on a separate sheet.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: J-1W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		Matrix %	Redox Color (moist)		Redox %	Type[1]	Loc²	Texture	Remarks
0-5	10YR	3/2	95%	10YR	4/4	5%			Silty Clay Loam	
5-12+	10YR	5/2	60%	10YR	5/6	40%			Silty Clay Loam	

[1] Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ²Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- [ ] Histosol (A1)
- [ ] Histic Epipedon (A2)
- [ ] Black Histic (A3) (except in MLRA 143)
- [ ] Hydrogen Sulfide (A4)
- [ ] Stratified Layers (A5)
- [ ] Depleted Below Dark Surface (A11)
- [ ] Thick Dark Surface (A12)
- [ ] Sandy Muck Mineral (S1)
- [ ] Sandy Gleyed Matrix (S4)
- [ ] Sandy Redox (S5)
- [ ] Stripped Matrix (S6) (Drop in LRR R?
- [ ] Dark Surface (S7) (MLRA 149B of LRR S)
- [ ] Polyvalue Below Surface (S8) (LRR R, S)
- [ ] Thin Dark Surface (S9) (LRR R, S)
- [ ] Loamy Mucky Mineral (F1)
- [ ] Loamy Gleyed Matrix (F2)
- [x] Depleted Matrix (F3)
- [ ] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [ ] Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- [ ] 2 cm Muck (A10) (LRR K, L, S)
- [ ] Coast Prairie Redox (A16) (LRR K, L, R)
- [ ] 5 cm Mucky Peat or Peat (S3)
- [ ] Dark Surface (S7) (LRR K, L)
- [ ] Polyvalue Below Surface (S8) (LRR K, L)
- [ ] Thin Dark Surface (S9) (LRR K, L)
- [ ] Iron-Manganese Masses (F12)
- [ ] Piedmont Floodplain Soils (F19)
- [ ] Red Parent Material (TF2)
- [ ] Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes (●) No ( )

Remarks:

Hydrology

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [x] Surface Water (A1)
- [ ] High Water Table (A2)
- [x] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Water-Stained Leaves (B9)
- [ ] Aquatic Fauna (B13)
- [ ] Marl Deposits (B15)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Oxidized Rhizospheres along Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Recent Iron Reduction in Tilled Soils (C6)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [x] Drainage Patterns (B10)
- [ ] Moss Trim Lines (B16)
- [ ] Dry Season Water Table (C2)
- [ ] Crayfish Burrows (C8)
- [ ] Saturation Visible on Aerial Imagery (C9)
- [ ] Stunted or Stressed Plants (D1)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4
- [x] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes (●)	No ( )	Depth (inches): 1
Water Table Present?	Yes ( )	No (●)	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes (●)	No ( )	Depth (inches):

Wetland Hydrology Present? Yes (●) No ( )

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 28-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** K-1U

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Flat

Soil Map Unit Name: Collamer silt loam, 2 to 6 percent slopes **Cover Type:** SSU

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ◉ No ○ **(If no, explain in Remarks.)**

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ◉ No ○

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** **(If needed, explain any answers in Remarks.)**

Summary of Findings - Attach site map showing sampling point locations, transects, important features, et

Hydrophytic Vegetation Present?	Yes ○ No ◉	**Is the Sampled Area within a Wetland?** Yes ○ No ◉
Hydric Soil Present?	Yes ○ No ◉	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes ○ No ◉	

Remarks:
Flag # K-4, Photo # 51S

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15' Radius)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' Radius)				
1. Solidago canadensis	45	☑	22.0%	FACU
2. Carex sp.	25	☐	12.2%	FAC
3. Aster sp.	25	☐	12.2%	FAC
4. Lonicera sp.	10	☐	4.9%	FACU
5. Achillea millefolium	30	☑	14.6%	FACU
6. Fragaria virginiana	15	☐	7.3%	FACU
7. Galium mollugo	10	☐	4.9%	UPL
8. Agrostis sp.	45	☑	22.0%	FAC
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	205	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC:	1	(A)
Total Number of Dominant Species Across All Strata:	3	(B)
Percent of dominant Species That Are OBL, FACW, or FAC:	33.3%	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:		
OBL species	0	x 1 =	0	
FACW species	0	x 2 =	0	
FAC species	95	x 3 =	285	
FACU species	100	x 4 =	400	
UPL species	10	x 5 =	50	
Column Totals:	205	(A)	735	(B)

Prevalence Index = B/A = 3.585

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☐ **Dominance Test is > 50%**
- ☐ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Hydrophytic Vegetation Present? Yes ○ No ◉

Remarks: (Include photo numbers here or on a separate sheet.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: K-1U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		Matrix %	Redox Features Color (moist)		Redox %	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR	4/3	100%						Silt Loam	
4-18+	10YR	5/3	90%	10YR	5/6	10%	C	M	Sandy Loam	

[1] Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2]Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- [ ] Histosol (A1)
- [ ] Histic Epipedon (A2)
- [ ] Black Histic (A3) (except in MLRA 143)
- [ ] Hydrogen Sulfide (A4)
- [ ] Stratified Layers (A5)
- [ ] Depleted Below Dark Surface (A11)
- [ ] Thick Dark Surface (A12)
- [ ] Sandy Muck Mineral (S1)
- [ ] Sandy Gleyed Matrix (S4)
- [ ] Sandy Redox (S5)
- [ ] Stripped Matrix (S6) (Drop in LRR R?
- [ ] Dark Surface (S7) (MLRA 149B of LRR S)
- [ ] Polyvalue Below Surface (S8) (LRR R, S)
- [ ] Thin Dark Surface (S9) (LRR R, S)
- [ ] Loamy Mucky Mineral (F1)
- [ ] Loamy Gleyed Matrix (F2)
- [ ] Depleted Matrix (F3)
- [ ] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [ ] Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- [ ] 2 cm Muck (A10) (LRR K, L, S)
- [ ] Coast Prairie Redox (A16) (LRR K, L, R)
- [ ] 5 cm Mucky Peat or Peat (S3)
- [ ] Dark Surface (S7) (LRR K, L)
- [ ] Polyvalue Below Surface (S8) (LRR K, L)
- [ ] Thin Dark Surface (S9) (LRR K, L)
- [ ] Iron-Manganese Masses (F12)
- [ ] Piedmont Floodplain Soils (F19)
- [ ] Red Parent Material (TF2)
- [ ] Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ●

Remarks:

Hydrology

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [ ] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Water-Stained Leaves (B9)
- [ ] Aquatic Fauna (B13)
- [ ] Marl Deposits (B15)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Oxidized Rhizospheres along Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Recent Iron Reduction in Tilled Soils (C6)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Drainage Patterns (B10)
- [ ] Moss Trim Lines (B16)
- [ ] Dry Season Water Table (C2)
- [ ] Crayfish Burrows (C8)
- [ ] Saturation Visible on Aerial Imagery (C9)
- [ ] Stunted or Stressed Plants (D1)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4
- [ ] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ● Depth (inches):

Water Table Present? Yes ○ No ● Depth (inches):

Saturation Present? (includes capillary fringe) Yes ○ No ● Depth (inches):

Wetland Hydrology Present? Yes ○ No ●

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 28-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** K-1W

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Flat

Soil Map Unit Name: Collamer silt loam, 2 to 6 percent slopes **Cover Type:** SSW

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ◉ No ○ **(If no, explain in Remarks.)**

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ◉ No ○

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** **(If needed, explain any answers in Remarks.)**

Summary of Findings - Attach site map showing sampling point locations, transects, important features, et

Hydrophytic Vegetation Present?	Yes ◉ No ○	**Is the Sampled Area within a Wetland?** Yes ◉ No ○
Hydric Soil Present?	Yes ◉ No ○	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes ◉ No ○	

Remarks:
Flag # K-4, Photo # 54N

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1. Fraxinus pennsylvanica	15	☑ 100.0%	FACW
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	15	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' Radius)			
1. Cornus amomum	45	☑ 100.0%	FACW
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	45	= Total Cover	
Herb Stratum (Plot size: 5' Radius)			
1. Impatiens capensis	70	☑ 48.3%	FACW
2. Poa sp.	30	☑ 20.7%	FAC
3. Epilobium hirsutum	40	☑ 27.6%	FACW
4. Solanum dulcamara	5	☐ 3.4%	FAC
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	145	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC:	5	(A)
Total Number of Dominant Species Across All Strata:	5	(B)
Percent of dominant Species That Are OBL, FACW, or FAC:	100.0%	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:		
OBL species	0	x 1 =	0	
FACW species	170	x 2 =	340	
FAC species	35	x 3 =	105	
FACU species	0	x 4 =	0	
UPL species	0	x 5 =	0	
Column Totals:	205	(A)	445	(B)

Prevalence Index = B/A = 2.171

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☑ **Dominance Test is > 50%**
- ☑ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Hydrophytic Vegetation Present? Yes ◉ No ○

Remarks: (Include photo numbers here or on a separate sheet.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: K-1W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		Matrix %	Redox Features Color (moist)		Redox %	Type [1]	Loc²	Texture	Remarks
0-11	10YR	3/2	100%						Silty Clay Loam	
11-18+	10YR	4/2	90%	10YR	4/4	10%	C	M	Silt Loam	

[1] Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ²Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- [ ] Histosol (A1)
- [ ] Histic Epipedon (A2)
- [ ] Black Histic (A3) (except in MLRA 143)
- [ ] Hydrogen Sulfide (A4)
- [ ] Stratified Layers (A5)
- [ ] Depleted Below Dark Surface (A11)
- [ ] Thick Dark Surface (A12)
- [ ] Sandy Muck Mineral (S1)
- [ ] Sandy Gleyed Matrix (S4)
- [ ] Sandy Redox (S5)
- [ ] Stripped Matrix (S6) (Drop in LRR R?
- [ ] Dark Surface (S7) (MLRA 149B of LRR S)
- [ ] Polyvalue Below Surface (S8) (LRR R, S)
- [ ] Thin Dark Surface (S9) (LRR R, S)
- [ ] Loamy Mucky Mineral (F1)
- [ ] Loamy Gleyed Matrix (F2)
- [x] Depleted Matrix (F3)
- [ ] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [ ] Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- [ ] 2 cm Muck (A10) (LRR K, L, S)
- [ ] Coast Prairie Redox (A16) (LRR K, L, R)
- [ ] 5 cm Mucky Peat or Peat (S3)
- [ ] Dark Surface (S7) (LRR K, L)
- [ ] Polyvalue Below Surface (S8) (LRR K, L)
- [ ] Thin Dark Surface (S9) (LRR K, L)
- [ ] Iron-Manganese Masses (F12)
- [ ] Piedmont Floodplain Soils (F19)
- [ ] Red Parent Material (TF2)
- [ ] Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes (●) No ( )

Remarks:

Hydrology

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [ ] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Water-Stained Leaves (B9)
- [ ] Aquatic Fauna (B13)
- [ ] Marl Deposits (B15)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Oxidized Rhizospheres along Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Recent Iron Reduction in Tilled Soils (C6)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [x] Drainage Patterns (B10)
- [x] Moss Trim Lines (B16)
- [ ] Dry Season Water Table (C2)
- [ ] Crayfish Burrows (C8)
- [ ] Saturation Visible on Aerial Imagery (C9)
- [ ] Stunted or Stressed Plants (D1)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4
- [x] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ( )	No (●)	Depth (inches):
Water Table Present?	Yes ( )	No (●)	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes ( )	No (●)	Depth (inches):

Wetland Hydrology Present? Yes (●) No ( )

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 01-Oct-12

Applicant/Owner: **State:** NY **Sampling Point:** L-1U

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Flat

Soil Map Unit Name: Williamson silt loam, 0 to 2 percent slopes **Cover Type:** OF

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ◉ No ○ **(If no, explain in Remarks.)**

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ◉ No ○

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** **(If needed, explain any answers in Remarks.)**

Summary of Findings - Attach site map showing sampling point locations, transects, important features, et

Hydrophytic Vegetation Present?	Yes ○ No ◉	**Is the Sampled Area within a Wetland?** Yes ○ No ◉
Hydric Soil Present?	Yes ○ No ◉	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes ○ No ◉	

Remarks:
Flag # L-13, Photo # 71S

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30' Radius)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15' Radius)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' Radius)				
1. Picris hieracioides	40	☑	17.8%	UPL
2. Solidago canadensis	55	☑	24.4%	FACU
3. Daucus carota	45	☑	20.0%	UPL
4. Fragaria virginiana	25	☐	11.1%	FACU
5. Taraxacum officinale	30	☐	13.3%	FACU
6. Melilotus alba	5	☐	2.2%	FACU
7. Galium mollugo	10	☐	4.4%	UPL
8. Symphyotrichum novae-angliae	15	☐	6.7%	FACW
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	225	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	0	x 3 =	0
FACU species	115	x 4 =	460
UPL species	95	x 5 =	475
Column Totals:	225 (A)		965 (B)

Prevalence Index = B/A = 4.289

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☐ **Dominance Test is > 50%**
- ☐ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Hydrophytic Vegetation Present? Yes ○ No ◉

Remarks: (Include photo numbers here or on a separate sheet.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: L-1U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		Matrix %	Redox Features Color (moist)		Redox %	Type[1]	Loc[2]	Texture	Remarks
0-14	10YR	4/3	98%	10YR	5/4	2%	C	M	Silt Loam	
14-22	10YR	6/6	100%						Sandy Loam	

[1] Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2]Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ◉

Remarks:

Hydrology

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 01-Oct-12

Applicant/Owner: **State:** NY **Sampling Point:** L-1W

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Flat

Soil Map Unit Name: Williamson silt loam, 0 to 2 percent slopes **Cover Type:** WM

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ◉ No ○ **(If no, explain in Remarks.)**

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ◉ No ○

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** **(If needed, explain any answers in Remarks.)**

Summary of Findings - Attach site map showing sampling point locations, transects, important features, et

Hydrophytic Vegetation Present?	Yes ◉ No ○	**Is the Sampled Area within a Wetland?** Yes ◉ No ○
Hydric Soil Present?	Yes ◉ No ○	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes ◉ No ○	

Remarks:
Flag # L-13, Photo # 70NW

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover		Indicator Status
Tree Stratum (Plot size: 30' Radius)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	**= Total Cover**		
Sapling/Shrub Stratum (Plot size: 15' Radius)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	**= Total Cover**		
Herb Stratum (Plot size: 5' Radius)				
1. Epilobium hirsutum	15	☐	7.1%	FACW
2. Phragmites australis	65	☑	31.0%	FACW
3. Eutrochium maculatum	30	☑	14.3%	OBL
4. Eupatorium perfoliatum	30	☑	14.3%	FACW
5. Lythrum salicaria	35	☑	16.7%	OBL
6. Populus deltoides	5	☐	2.4%	FAC
7. Cornus amomum	20	☐	9.5%	FACW
8. Symphyotrichum ericoides	10	☐	4.8%	FACU
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	210	**= Total Cover**		
Woody Vine Stratum (Plot size: 30' Radius)				
1. Vitis riparia	15	☐	100.0%	FAC
2.	0	☐	0.0%	
	15	**= Total Cover**		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC:	5	(A)
Total Number of Dominant Species Across All Strata:	5	(B)
Percent of dominant Species That Are OBL, FACW, or FAC:	100.0%	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:		
OBL species	65	x 1 =	65	
FACW species	130	x 2 =	260	
FAC species	20	x 3 =	60	
FACU species	10	x 4 =	40	
UPL species	0	x 5 =	0	
Column Totals:	225	(A)	425	(B)

Prevalence Index = B/A = 1.889

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☑ **Dominance Test is > 50%**
- ☑ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Hydrophytic Vegetation Present? Yes ◉ No ○

Remarks: (Include photo numbers here or on a separate sheet.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: L-1W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		Matrix %	Redox Color (moist)		Redox %	Type [1]	Loc [2]	Texture	Remarks
0-12	10YR	4/2	95%	10YR	4/4	5%	C	M	Silt Loam	
12-22	10YR	5/6	95%	10YR	4/6	5%	C	M	Fine Sandy Loam	

[1] Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2]Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks:

Hydrology

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☑ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 01-Oct-12

Applicant/Owner: **State:** NY **Sampling Point:** L-2U

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Flat

Soil Map Unit Name: Williamson silt loam, rolling **Cover Type:** DFU

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) **(If no, explain in Remarks.)**

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes (●) No ( )

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** **(If needed, explain any answers in Remarks.)**

Summary of Findings - Attach site map showing sampling point locations, transects, important features, et

Hydrophytic Vegetation Present?	Yes ( ) No (●)	**Is the Sampled Area within a Wetland?** Yes ( ) No (●)
Hydric Soil Present?	Yes ( ) No (●)	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes ( ) No (●)	

Remarks:
Flag # L-304, Photo # 72NW

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1. Betula alleghaniensis	70	☑	48.3%	FAC
2. Fraxinus americana	20	☑	13.8%	FACU
3. Tilia americana	20	☑	13.8%	FACU
4. Acer saccharum	15	☐	10.3%	FACU
5. Acer rubrum	20	☑	13.8%	FAC
	145	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15' Radius)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		

Herb Stratum (Plot size: 5' Radius)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1. Fagus grandifolia	15	☐	18.3%	FACU
2. Fraxinus americana	25	☑	30.5%	FACU
3. Prunus serotina	5	☐	6.1%	FACU
4. Tilia americana	15	☐	18.3%	FACU
5. Toxicodendron radicans	20	☑	24.4%	FAC
6. Rhamnus cathartica	2	☐	2.4%	FAC
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	82	= Total Cover		

Woody Vine Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	112	x 3 =	336
FACU species	115	x 4 =	460
UPL species	0	x 5 =	0
Column Totals:	227 (A)		796 (B)

Prevalence Index = B/A = 3.507

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☐ **Dominance Test is > 50%**
- ☐ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Hydrophytic Vegetation Present? Yes ( ) No (●)

Remarks: (Include photo numbers here or on a separate sheet.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: L-2U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		Matrix %	Redox Features Color (moist)		Redox %	Type[1]	Loc²	Texture	Remarks
0-2	10YR	3/3	100%						Silt Loam	
2-18	10YR	5/4	100%						Sandy Loam	

[1] Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ²Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- [ ] Histosol (A1)
- [ ] Histic Epipedon (A2)
- [ ] Black Histic (A3) (except in MLRA 143)
- [ ] Hydrogen Sulfide (A4)
- [ ] Stratified Layers (A5)
- [ ] Depleted Below Dark Surface (A11)
- [ ] Thick Dark Surface (A12)
- [ ] Sandy Muck Mineral (S1)
- [ ] Sandy Gleyed Matrix (S4)
- [ ] Sandy Redox (S5)
- [ ] Stripped Matrix (S6) (Drop in LRR R?
- [ ] Dark Surface (S7) (MLRA 149B of LRR S)
- [ ] Polyvalue Below Surface (S8) (LRR R, S)
- [ ] Thin Dark Surface (S9) (LRR R, S)
- [ ] Loamy Mucky Mineral (F1)
- [ ] Loamy Gleyed Matrix (F2)
- [ ] Depleted Matrix (F3)
- [ ] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [ ] Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- [ ] 2 cm Muck (A10) (LRR K, L, S)
- [ ] Coast Prairie Redox (A16) (LRR K, L, R)
- [ ] 5 cm Mucky Peat or Peat (S3)
- [ ] Dark Surface (S7) (LRR K, L)
- [ ] Polyvalue Below Surface (S8) (LRR K, L)
- [ ] Thin Dark Surface (S9) (LRR K, L)
- [ ] Iron-Manganese Masses (F12)
- [ ] Piedmont Floodplain Soils (F19)
- [ ] Red Parent Material (TF2)
- [ ] Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ◉

Remarks:

Hydrology

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [ ] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Water-Stained Leaves (B9)
- [ ] Aquatic Fauna (B13)
- [ ] Marl Deposits (B15)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Oxidized Rhizospheres along Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Recent Iron Reduction in Tilled Soils (C6)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Drainage Patterns (B10)
- [ ] Moss Trim Lines (B16)
- [ ] Dry Season Water Table (C2)
- [ ] Crayfish Burrows (C8)
- [ ] Saturation Visible on Aerial Imagery (C9)
- [ ] Stunted or Stressed Plants (D1)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4
- [ ] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 01-Oct-12

Applicant/Owner: **State:** NY **Sampling Point:** L-2W

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Flat

Soil Map Unit Name: Williamson silt loam, rolling **Cover Type:** DFW

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ◉ No ○ **(If no, explain in Remarks.)**

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ◉ No ○

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** **(If needed, explain any answers in Remarks.)**

Summary of Findings - Attach site map showing sampling point locations, transects, important features, et

Hydrophytic Vegetation Present?	Yes ◉ No ○	**Is the Sampled Area within a Wetland?** Yes ◉ No ○
Hydric Soil Present?	Yes ◉ No ○	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes ◉ No ○	

Remarks:
Flag # L-318, Photo # 73NE

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1. Acer rubrum	85	☑ 94.4%	FAC
2. Fraxinus pennsylvanica	5	☐ 5.6%	FACW
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	90	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' Radius)			
1. Acer rubrum	5	☑ 100.0%	FAC
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	5	= Total Cover	
Herb Stratum (Plot size: 5' Radius)			
1. Acer rubrum	10	☐ 7.9%	FAC
2. Onoclea sensibilis	40	☑ 31.5%	FACW
3. Fraxinus americana	15	☐ 11.8%	FACU
4. Osmunda regalis	60	☑ 47.2%	OBL
5. Urtica dioica	2	☐ 1.6%	FAC
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	127	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC:	4	(A)
Total Number of Dominant Species Across All Strata:	4	(B)
Percent of dominant Species That Are OBL, FACW, or FAC:	100.0%	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:		
OBL species	60	x 1 =	60	
FACW species	45	x 2 =	90	
FAC species	102	x 3 =	306	
FACU species	15	x 4 =	60	
UPL species	0	x 5 =	0	
Column Totals:	222	(A)	516	(B)

Prevalence Index = B/A = 2.324

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☑ **Dominance Test is > 50%**
- ☑ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations [1] (Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation [1] (Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Hydrophytic Vegetation Present? Yes ◉ No ○

Remarks: (Include photo numbers here or on a separate sheet.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: L-2W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		Matrix %	Redox Features Color (moist)		Redox %	Type[1]	Loc[2]	Texture	Remarks
0-9	10YR	3/1	100%						Silt Loam	
9-18	10YR	5/2	90%	10YR	5/1	10%	D	M	Sandy Loam	

[1] Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2]Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks:

Hydrology

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☑ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☑ Moss Trim Lines (B16)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 01-Oct-12

Applicant/Owner: **State:** NY **Sampling Point:** M-1U

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Flat

Soil Map Unit Name: Collamer silt loam, 0 to 2 percent slopes **Cover Type:** OF

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ◉ No ○ **(If no, explain in Remarks.)**

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ◉ No ○

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** **(If needed, explain any answers in Remarks.)**

Summary of Findings - Attach site map showing sampling point locations, transects, important features, et

Hydrophytic Vegetation Present?	Yes ○ No ◉	**Is the Sampled Area within a Wetland?** Yes ○ No ◉
Hydric Soil Present?	Yes ○ No ◉	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes ○ No ◉	

Remarks:
Flag #M-2, Photo # 78W

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1. Pinus sylvestris	20	☑	100.0%	UPL
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	20		= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' Radius)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0		= Total Cover	
Herb Stratum (Plot size: 5' Radius)				
1. Solidago canadensis	85	☑	58.6%	FACU
2. Daucus carota	15	☐	10.3%	UPL
3. Galium mollugo	15	☐	10.3%	UPL
4. Taraxacum officinale	10	☐	6.9%	FACU
5. Picris hieracioides	20	☐	13.8%	UPL
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	145		= Total Cover	
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	0		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC:	0	(A)
Total Number of Dominant Species Across All Strata:	2	(B)
Percent of dominant Species That Are OBL, FACW, or FAC:	0.0%	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:		
OBL species	0	x 1 =	0	
FACW species	0	x 2 =	0	
FAC species	0	x 3 =	0	
FACU species	95	x 4 =	380	
UPL species	70	x 5 =	350	
Column Totals:	165	(A)	730	(B)

Prevalence Index = B/A = 4.424

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☐ **Dominance Test is > 50%**
- ☐ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Hydrophytic Vegetation Present? Yes ○ No ◉

Remarks: (Include photo numbers here or on a separate sheet.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: M-1U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		Matrix %	Redox Features Color (moist)		Redox %	Type[1]	Loc[2]	Texture	Remarks
0-14	10YR	4/3	100%						Silt Loam	
14-18	10YR	4/4	95%	10YR	5/6	5%	C	M	Silt Loam	Rocky below

[1] Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2] Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ◉

Remarks:

Hydrology

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 01-Oct-12

Applicant/Owner: **State:** NY **Sampling Point:** M-1W

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Flat

Soil Map Unit Name: Collamer silt loam, 0 to 2 percent slopes **Cover Type:** WM

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) **(If no, explain in Remarks.)**

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes (●) No ( )

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** **(If needed, explain any answers in Remarks.)**

Summary of Findings - Attach site map showing sampling point locations, transects, important features, et

Hydrophytic Vegetation Present?	Yes (●) No ( )	**Is the Sampled Area within a Wetland?** Yes (●) No ( )
Hydric Soil Present?	Yes (●) No ( )	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes (●) No ( )	

Remarks:
Flag #M-2, Photo # 79NW

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover		Indicator Status
Tree Stratum (Plot size: 30' Radius)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15' Radius)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' Radius)				
1. Cornus alba	30	☑	18.2%	FACW
2. Phragmites australis	80	☑	48.5%	FACW
3. Symphyotrichum novae-angliae	5	☐	3.0%	FACW
4. Viburnum dentatum	15	☐	9.1%	FAC
5. Juncus tenuis	25	☐	15.2%	FAC
6. Galium palustre	10	☐	6.1%	OBL
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	165	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC:	2	(A)
Total Number of Dominant Species Across All Strata:	2	(B)
Percent of dominant Species That Are OBL, FACW, or FAC:	100.0%	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:		
OBL species	10	x 1 =	10	
FACW species	115	x 2 =	230	
FAC species	40	x 3 =	120	
FACU species	0	x 4 =	0	
UPL species	0	x 5 =	0	
Column Totals:	165	(A)	360	(B)

Prevalence Index = B/A = 2.182

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☑ **Dominance Test is > 50%**
- ☑ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Hydrophytic Vegetation Present? Yes (●) No ( )

Remarks: (Include photo numbers here or on a separate sheet.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: M-1W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		Matrix %	Redox Color (moist)		Redox %	Type[1]	Loc[2]	Texture	Remarks
0-11	10YR	3/2	98%	10YR	4/4	2%			Sandy Loam	Little gravelly
11-16+	10YR	4/1	80%	10YR	5/4	20%			Fine Sandy Loam	With gravel

[1] Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2]Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- [ ] Histosol (A1)
- [ ] Histic Epipedon (A2)
- [ ] Black Histic (A3) (except in MLRA 143)
- [ ] Hydrogen Sulfide (A4)
- [ ] Stratified Layers (A5)
- [ ] Depleted Below Dark Surface (A11)
- [ ] Thick Dark Surface (A12)
- [ ] Sandy Muck Mineral (S1)
- [ ] Sandy Gleyed Matrix (S4)
- [ ] Sandy Redox (S5)
- [ ] Stripped Matrix (S6) (Drop in LRR R?
- [ ] Dark Surface (S7) (MLRA 149B of LRR S)
- [ ] Polyvalue Below Surface (S8) (LRR R, S)
- [ ] Thin Dark Surface (S9) (LRR R, S)
- [ ] Loamy Mucky Mineral (F1)
- [ ] Loamy Gleyed Matrix (F2)
- [x] Depleted Matrix (F3)
- [x] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [ ] Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- [ ] 2 cm Muck (A10) (LRR K, L, S)
- [ ] Coast Prairie Redox (A16) (LRR K, L, R)
- [ ] 5 cm Mucky Peat or Peat (S3)
- [ ] Dark Surface (S7) (LRR K, L)
- [ ] Polyvalue Below Surface (S8) (LRR K, L)
- [ ] Thin Dark Surface (S9) (LRR K, L)
- [ ] Iron-Manganese Masses (F12)
- [ ] Piedmont Floodplain Soils (F19)
- [ ] Red Parent Material (TF2)
- [ ] Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes (●) No ( )

Remarks:

Hydrology

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [x] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Water-Stained Leaves (B9)
- [ ] Aquatic Fauna (B13)
- [ ] Marl Deposits (B15)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Oxidized Rhizospheres along Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Recent Iron Reduction in Tilled Soils (C6)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [x] Drainage Patterns (B10)
- [ ] Moss Trim Lines (B16)
- [ ] Dry Season Water Table (C2)
- [ ] Crayfish Burrows (C8)
- [ ] Saturation Visible on Aerial Imagery (C9)
- [ ] Stunted or Stressed Plants (D1)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4
- [x] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ( ) No (●) Depth (inches):

Water Table Present? Yes ( ) No (●) Depth (inches):

Saturation Present? (includes capillary fringe) Yes ( ) No (●) Depth (inches):

Wetland Hydrology Present? Yes (●) No ( )

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 28-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** N-1U

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Flat

Soil Map Unit Name: Collamer silt loam, 2 to 6 percent slopes **Cover Type:** OF

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) **(If no, explain in Remarks.)**

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes (●) No ( )

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** **(If needed, explain any answers in Remarks.)**

Summary of Findings - Attach site map showing sampling point locations, transects, important features, et

Hydrophytic Vegetation Present?	Yes ( ) No (●)	**Is the Sampled Area within a Wetland?** Yes ( ) No (●)
Hydric Soil Present?	Yes ( ) No (●)	
Wetland Hydrology Present?	Yes ( ) No (●)	If yes, optional Wetland Site ID:

Remarks:
Photo # 67S

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15' Radius)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		

Herb Stratum (Plot size: 5' Radius)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1. Carex sp.	85	☑	43.6%	FAC
2. Galium mollugo	30	☑	15.4%	UPL
3. Asclepias syriaca	15	☐	7.7%	UPL
4. Solidago canadensis	15	☐	7.7%	FACU
5. Taraxacum officinale	10	☐	5.1%	FACU
6. Trifolium pratense	15	☐	7.7%	FACU
7. Daucus carota	10	☐	5.1%	UPL
8. Picris hieracioides	5	☐	2.6%	UPL
9. Vicia sp.	10	☐	5.1%	FAC
10.	0	☐	0.0%	
	195	= Total Cover		

Woody Vine Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC:	1	(A)
Total Number of Dominant Species Across All Strata:	2	(B)
Percent of dominant Species That Are OBL, FACW, or FAC:	50.0%	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:		
OBL species	0	x 1 =	0	
FACW species	0	x 2 =	0	
FAC species	95	x 3 =	285	
FACU species	40	x 4 =	160	
UPL species	60	x 5 =	300	
Column Totals:	195	(A)	745	(B)

Prevalence Index = B/A = 3.821

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☐ **Dominance Test is > 50%**
- ☐ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Hydrophytic Vegetation Present? Yes ( ) No (●)

Remarks: (Include photo numbers here or on a separate sheet.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: N-1U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		Matrix %	Redox Features Color (moist)		Redox %	Type [1]	Loc [2]	Texture	Remarks
0-16	10YR	3/3	100%						Silt Loam	
16-20	10YR	4/4	75%	10YR	5/3	25%	C	M	Sandy Loam	

[1] Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2]Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ◉

Remarks:

Hydrology

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 28-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** N-1W

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Flat

Soil Map Unit Name: Collamer silt loam, 2 to 6 percent slopes **Cover Type:** WM

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) **(If no, explain in Remarks.)**

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes (●) No ( )

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** **(If needed, explain any answers in Remarks.)**

Summary of Findings - Attach site map showing sampling point locations, transects, important features, et

Hydrophytic Vegetation Present?	Yes (●) No ( )	**Is the Sampled Area within a Wetland?** Yes (●) No ( )
Hydric Soil Present?	Yes (●) No ( )	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes (●) No ( )	

Remarks:
Photo # 66NW

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15' Radius)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		

Herb Stratum (Plot size: 5' Radius)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1. Phragmites australis	100	☑	100.0%	FACW
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	100	= Total Cover		

Woody Vine Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC:	1	(A)
Total Number of Dominant Species Across All Strata:	1	(B)
Percent of dominant Species That Are OBL, FACW, or FAC:	100.0%	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:		
OBL species	0	x 1 =	0	
FACW species	100	x 2 =	200	
FAC species	0	x 3 =	0	
FACU species	0	x 4 =	0	
UPL species	0	x 5 =	0	
Column Totals:	100	(A)	200	(B)

Prevalence Index = B/A = 2.000

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☑ **Dominance Test is > 50%**
- ☑ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Hydrophytic Vegetation Present? Yes (●) No ( )

Remarks: (Include photo numbers here or on a separate sheet.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: N-1W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-11	10YR 3/2	95%	10YR 4/6	5%	C	M	Silt Loam	
11-18	10YR 5/4	95%	10YR 5/6	5%	C	M	Sandy Loam	

[1] Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains   [2]Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- [ ] Histosol (A1)
- [ ] Histic Epipedon (A2)
- [ ] Black Histic (A3) (except in MLRA 143)
- [ ] Hydrogen Sulfide (A4)
- [ ] Stratified Layers (A5)
- [ ] Depleted Below Dark Surface (A11)
- [ ] Thick Dark Surface (A12)
- [ ] Sandy Muck Mineral (S1)
- [ ] Sandy Gleyed Matrix (S4)
- [ ] Sandy Redox (S5)
- [ ] Stripped Matrix (S6) (Drop in LRR R?
- [ ] Dark Surface (S7) (MLRA 149B of LRR S)
- [ ] Polyvalue Below Surface (S8) (LRR R, S)
- [ ] Thin Dark Surface (S9) (LRR R, S)
- [ ] Loamy Mucky Mineral (F1)
- [ ] Loamy Gleyed Matrix (F2)
- [ ] Depleted Matrix (F3)
- [x] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [ ] Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- [ ] 2 cm Muck (A10) (LRR K, L, S)
- [ ] Coast Prairie Redox (A16) (LRR K, L, R)
- [ ] 5 cm Mucky Peat or Peat (S3)
- [ ] Dark Surface (S7) (LRR K, L)
- [ ] Polyvalue Below Surface (S8) (LRR K, L)
- [ ] Thin Dark Surface (S9) (LRR K, L)
- [ ] Iron-Manganese Masses (F12)
- [ ] Piedmont Floodplain Soils (F19)
- [ ] Red Parent Material (TF2)
- [ ] Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes (●) No ( )

Remarks:

Hydrology

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [ ] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Water-Stained Leaves (B9)
- [ ] Aquatic Fauna (B13)
- [ ] Marl Deposits (B15)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Oxidized Rhizospheres along Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Recent Iron Reduction in Tilled Soils (C6)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [x] Drainage Patterns (B10)
- [ ] Moss Trim Lines (B16)
- [ ] Dry Season Water Table (C2)
- [ ] Crayfish Burrows (C8)
- [x] Saturation Visible on Aerial Imagery (C9)
- [ ] Stunted or Stressed Plants (D1)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4
- [x] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ( ) No (●) Depth (inches):

Water Table Present? Yes ( ) No (●) Depth (inches):

Saturation Present? (includes capillary fringe) Yes ( ) No (●) Depth (inches):

Wetland Hydrology Present? Yes (●) No ( )

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 28-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** N-2U

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Hillside

Soil Map Unit Name: Dunkirk silt loam, rolling **Cover Type:** OF

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) **(If no, explain in Remarks.)**

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes (●) No ( )

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** **(If needed, explain any answers in Remarks.)**

Summary of Findings - Attach site map showing sampling point locations, transects, important features, et

Hydrophytic Vegetation Present?	Yes ( ) No (●)	**Is the Sampled Area within a Wetland?** Yes ( ) No (●)
Hydric Soil Present?	Yes ( ) No (●)	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes ( ) No (●)	

Remarks:
Flag # N-211, Photo # 69S

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30' Radius)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15' Radius)				
1. Pinus sylvestris	20	☑	100.0%	UPL
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	20	= Total Cover		
Herb Stratum (Plot size: 5' Radius)				
1. Rubus allegheniensis	90	☑	81.8%	FACU
2. Solidago canadensis	20	☐	18.2%	FACU
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	110	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC:	0	(A)
Total Number of Dominant Species Across All Strata:	2	(B)
Percent of dominant Species That Are OBL, FACW, or FAC:	0.0%	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:		
OBL species	0	x 1 =	0	
FACW species	0	x 2 =	0	
FAC species	0	x 3 =	0	
FACU species	110	x 4 =	440	
UPL species	20	x 5 =	100	
Column Totals:	130	(A)	540	(B)

Prevalence Index = B/A = 4.154

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☐ **Dominance Test is > 50%**
- ☐ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Hydrophytic Vegetation Present? Yes ( ) No (●)

Remarks: (Include photo numbers here or on a separate sheet.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: N-2U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		Matrix %	Redox Features Color (moist)		Redox %	Type [1]	Loc²	Texture	Remarks
0-16	10YR	4/3	100%						Sandy Loam	
16-20	10YR	5/6	100%						Sandy Loam	

[1] Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ²Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ◉

Remarks:

Hydrology

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 28-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** N-2W

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Flat

Soil Map Unit Name: Dunkirk silt loam, rolling **Cover Type:** SSW

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) **(If no, explain in Remarks.)**

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes (●) No ( )

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** **(If needed, explain any answers in Remarks.)**

Summary of Findings - Attach site map showing sampling point locations, transects, important features, et

Hydrophytic Vegetation Present?	Yes (●) No ( )	**Is the Sampled Area within a Wetland?** Yes (●) No ( )
Hydric Soil Present?	Yes (●) No ( )	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes (●) No ( )	

Remarks:
Flag # N-211, Photo # 68SW

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30' Radius)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15' Radius)				
1. Cornus amomum	45	☑	81.8%	FACW
2. Rhamnus cathartica	10	☐	18.2%	FAC
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	55	= Total Cover		
Herb Stratum (Plot size: 5' Radius)				
1. Cornus amomum	35	☐	17.8%	FACW
2. Symphyotrichum novae-angliae	10	☐	5.1%	FACW
3. Aster sp.	65	☑	33.0%	FAC
4. Lythrum salicaria	2	☐	1.0%	OBL
5. Carex sp.	85	☑	43.1%	FAC
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	197	= Total Cover		
Woody Vine Stratum (Plot size: 30' Radius)				
1. Vitis riparia	15	☐	100.0%	FAC
2.	0	☐	0.0%	
	15	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC:	4	(A)
Total Number of Dominant Species Across All Strata:	4	(B)
Percent of dominant Species That Are OBL, FACW, or FAC:	100.0%	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	2	x 1 =	2
FACW species	90	x 2 =	180
FAC species	175	x 3 =	525
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	267 (A)		707 (B)

Prevalence Index = B/A = 2.648

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☑ Dominance Test is > 50%
- ☑ Prevalence Index is ≤3.0 [1]
- ☐ Morphological Adaptations [1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation [1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes (●) No ( )

Remarks: (Include photo numbers here or on a separate sheet.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: N-2W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		Matrix %	Redox Features Color (moist)		Redox %	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR	3/1	95%	10YR	4/4	5%	C	M	Silt Loam	
12-18	10YR	5/4	90%	10YR	5/6	10%	C	M	Sandy Loam	

[1] Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2]Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- [ ] Histosol (A1)
- [ ] Histic Epipedon (A2)
- [ ] Black Histic (A3) (except in MLRA 143)
- [ ] Hydrogen Sulfide (A4)
- [ ] Stratified Layers (A5)
- [ ] Depleted Below Dark Surface (A11)
- [ ] Thick Dark Surface (A12)
- [ ] Sandy Muck Mineral (S1)
- [ ] Sandy Gleyed Matrix (S4)
- [ ] Sandy Redox (S5)
- [ ] Stripped Matrix (S6) (Drop in LRR R?
- [ ] Dark Surface (S7) (MLRA 149B of LRR S)
- [ ] Polyvalue Below Surface (S8) (LRR R, S)
- [ ] Thin Dark Surface (S9) (LRR R, S)
- [ ] Loamy Mucky Mineral (F1)
- [ ] Loamy Gleyed Matrix (F2)
- [ ] Depleted Matrix (F3)
- [x] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [ ] Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- [ ] 2 cm Muck (A10) (LRR K, L, S)
- [ ] Coast Prairie Redox (A16) (LRR K, L, R)
- [ ] 5 cm Mucky Peat or Peat (S3)
- [ ] Dark Surface (S7) (LRR K, L)
- [ ] Polyvalue Below Surface (S8) (LRR K, L)
- [ ] Thin Dark Surface (S9) (LRR K, L)
- [ ] Iron-Manganese Masses (F12)
- [ ] Piedmont Floodplain Soils (F19)
- [ ] Red Parent Material (TF2)
- [ ] Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes (●) No ( )

Remarks:

Hydrology

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [ ] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Water-Stained Leaves (B9)
- [ ] Aquatic Fauna (B13)
- [ ] Marl Deposits (B15)
- [ ] Hydrogen Sulfide Odor (C1)
- [x] Oxidized Rhizospheres along Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Recent Iron Reduction in Tilled Soils (C6)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Drainage Patterns (B10)
- [ ] Moss Trim Lines (B16)
- [ ] Dry Season Water Table (C2)
- [ ] Crayfish Burrows (C8)
- [ ] Saturation Visible on Aerial Imagery (C9)
- [ ] Stunted or Stressed Plants (D1)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] Microtopographic Relief (D4
- [x] FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ( )	No (●)	Depth (inches):
Water Table Present?	Yes ( )	No (●)	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes ( )	No (●)	Depth (inches):

Wetland Hydrology Present? Yes (●) No ( )

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 01-Oct-12

Applicant/Owner: **State:** NY **Sampling Point:** O-1U

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Flat

Soil Map Unit Name: Niagara silt loam, 0 to 4 percent slopes **Cover Type:** OF

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (●) No ○ **(If no, explain in Remarks.)**

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes (●) No ○

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** **(If needed, explain any answers in Remarks.)**

Summary of Findings - Attach site map showing sampling point locations, transects, important features, et

Hydrophytic Vegetation Present?	Yes ○	No (●)
Hydric Soil Present?	Yes ○	No (●)
Wetland Hydrology Present?	Yes ○	No (●)

Is the Sampled Area within a Wetland? Yes ○ No (●)

If yes, optional Wetland Site ID:

Remarks:
Flag # O-1, Photo # 85SW

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15' Radius)				
1. Rhus typhina	20	☑	100.0%	UPL
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	20	= Total Cover		
Herb Stratum (Plot size: 5' Radius)				
1. Lonicera sp.	15	☐	14.3%	FACU
2. Verbascum thapsus	10	☐	9.5%	UPL
3. Solidago canadensis	80	☑	76.2%	FACU
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	105	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC:	0	(A)
Total Number of Dominant Species Across All Strata:	2	(B)
Percent of dominant Species That Are OBL, FACW, or FAC:	0.0%	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:		
OBL species	0	x 1 =	0	
FACW species	0	x 2 =	0	
FAC species	0	x 3 =	0	
FACU species	95	x 4 =	380	
UPL species	30	x 5 =	150	
Column Totals:	125	(A)	530	(B)

Prevalence Index = B/A = 4.240

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☐ **Dominance Test is > 50%**
- ☐ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Hydrophytic Vegetation Present? Yes ○ No (●)

Remarks: (Include photo numbers here or on a separate sheet.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: O-1U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		Matrix %	Redox Features Color (moist)		Redox %	Type [1]	Loc²	Texture	Remarks
0-13	10YR	3/3	100%						Silt Loam	
13-20	10YR	5/6	100%						Sandy Loam	

[1] Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ²Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ●

Remarks:

Hydrology

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ● Depth (inches):

Water Table Present? Yes ○ No ● Depth (inches):

Saturation Present? (includes capillary fringe) Yes ○ No ● Depth (inches):

Wetland Hydrology Present? Yes ○ No ●

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 01-Oct-12

Applicant/Owner: **State:** NY **Sampling Point:** O-1W

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Flat

Soil Map Unit Name: Niagara silt loam, 0 to 4 percent slopes **Cover Type:** WM

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) **(If no, explain in Remarks.)**

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes (●) No ( )

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** **(If needed, explain any answers in Remarks.)**

Summary of Findings - Attach site map showing sampling point locations, transects, important features, et

Hydrophytic Vegetation Present?	Yes (●) No ( )	**Is the Sampled Area within a Wetland?** Yes (●) No ( )
Hydric Soil Present?	Yes (●) No ( )	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes (●) No ( )	

Remarks:
Flag # O-1, Photo # 84N

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1. Acer saccharinum	15	☑ 100.0%	FACW
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	15	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' Radius)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Herb Stratum (Plot size: 5' Radius)			
1. Phragmites australis	80	☑ 43.2%	FACW
2. Typha latifolia	30	☐ 16.2%	OBL
3. Aster sp.	65	☑ 35.1%	FAC
4. Acer saccharinum	5	☐ 2.7%	FACW
5. Lysimachia nummularia	5	☐ 2.7%	FACW
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	185	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC:	3	(A)
Total Number of Dominant Species Across All Strata:	3	(B)
Percent of dominant Species That Are OBL, FACW, or FAC:	100.0%	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:		
OBL species	30	x 1 =	30	
FACW species	105	x 2 =	210	
FAC species	65	x 3 =	195	
FACU species	0	x 4 =	0	
UPL species	0	x 5 =	0	
Column Totals:	200	(A)	435	(B)

Prevalence Index = B/A = 2.175

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☑ **Dominance Test is > 50%**
- ☑ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Hydrophytic Vegetation Present? Yes (●) No ( )

Remarks: (Include photo numbers here or on a separate sheet.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: O-1W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		Matrix %	Redox Color (moist)		Redox %	Type[1]	Loc[2]	Texture	Remarks
0-7	10YR	3/2	95%	7.5YR	4/6	5%	C	M	Sandy Loam	
7-15	10YR	4/2	95%	10YR	4/4	5%	D	M	Sandy Loam	
15-18+	10YR	5/2	60%	10YR	4/4	40%			Sandy Loam	

[1] Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2]Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks:

Hydrology

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☑ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ◉	No ○	Depth (inches): 4
Water Table Present?	Yes ○	No ◉	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes ◉	No ○	Depth (inches):

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 01-Oct-12

Applicant/Owner: **State:** NY **Sampling Point:** P-1U

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Flat

Soil Map Unit Name: Niagara silt loam, 0 to 4 percent slopes **Cover Type:** OF

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) **(If no, explain in Remarks.)**

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes (●) No ( )

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** **(If needed, explain any answers in Remarks.)**

Summary of Findings - Attach site map showing sampling point locations, transects, important features, et

Hydrophytic Vegetation Present?	Yes ( ) No (●)	**Is the Sampled Area within a Wetland?** Yes ( ) No (●)
Hydric Soil Present?	Yes ( ) No (●)	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes ( ) No (●)	

Remarks:
Flag # P-3, Photo # 87SW

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15' Radius)				
1. Rhus typhina	25	☑	100.0%	UPL
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	25	= Total Cover		
Herb Stratum (Plot size: 5' Radius)				
1. Symphyotrichum novae-angliae	10	☐	6.7%	FACW
2. Solidago canadensis	85	☑	56.7%	FACU
3. Cornus alba	15	☐	10.0%	FACW
4. Poa sp.	40	☑	26.7%	FAC
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	150	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC:	1	(A)
Total Number of Dominant Species Across All Strata:	3	(B)
Percent of dominant Species That Are OBL, FACW, or FAC:	33.3%	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:		
OBL species	0	x 1 =	0	
FACW species	25	x 2 =	50	
FAC species	40	x 3 =	120	
FACU species	85	x 4 =	340	
UPL species	25	x 5 =	125	
Column Totals:	175	(A)	635	(B)

Prevalence Index = B/A = 3.629

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☐ **Dominance Test is > 50%**
- ☐ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Hydrophytic Vegetation Present? Yes ( ) No (●)

Remarks: (Include photo numbers here or on a separate sheet.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: P-1U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		Matrix %	Redox Color (moist)		Redox %	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR	4/3	95%	10YR	5/6	5%	C	M	Silty Clay Loam	
12-18	10YR	4/4	95%	10YR	5/6	5%	C	M	Fine Sandy Loam	

[1] Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2]Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ◉

Remarks:

Hydrology

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 01-Oct-12

Applicant/Owner: **State:** NY **Sampling Point:** P-1W

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Flat

Soil Map Unit Name: Niagara silt loam, 0 to 4 percent slopes **Cover Type:** DFW

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) **(If no, explain in Remarks.)**

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes (●) No ( )

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** **(If needed, explain any answers in Remarks.)**

Summary of Findings - Attach site map showing sampling point locations, transects, important features, et

Hydrophytic Vegetation Present?	Yes (●) No ( )	**Is the Sampled Area within a Wetland?**	Yes (●) No ( )
Hydric Soil Present?	Yes (●) No ( )	If yes, optional Wetland Site ID:	
Wetland Hydrology Present?	Yes (●) No ( )		

Remarks:
Flag # P-3, Photo # 86S

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1. Acer saccharinum	50	☑	100.0%	FACW
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	50	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15' Radius)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1. Cornus amomum	10	☑	100.0%	FACW
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	10	= Total Cover		

Herb Stratum (Plot size: 5' Radius)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1. Phragmites australis	95	☑	95.0%	FACW
2. Tussilago farfara	5	☐	5.0%	FACU
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	100	= Total Cover		

Woody Vine Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC:	3	(A)
Total Number of Dominant Species Across All Strata:	3	(B)
Percent of dominant Species That Are OBL, FACW, or FAC:	100.0%	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	155	x 2 =	310
FAC species	0	x 3 =	0
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	160 (A)		330 (B)

Prevalence Index = B/A = 2.063

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☑ **Dominance Test is > 50%**
- ☑ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Hydrophytic Vegetation Present? Yes (●) No ( )

Remarks: (Include photo numbers here or on a separate sheet.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: P-1W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		Matrix %	Redox Features Color (moist)		Redox %	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR	3/1	98%	10YR	4/4	2%	C	M	Silt Loam	
12-20	10YR	5/6	100%						Sandy Loam	

[1] Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2]Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks:

Hydrology

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☑ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☑ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ◉	No ○	Depth (inches): 1
Water Table Present?	Yes ○	No ◉	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes ◉	No ○	Depth (inches):

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 27-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** UP-1

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Flat

Soil Map Unit Name: Collamer silt loam, 2 to 6 percent slopes **Cover Type:** SSU

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (●) No ○ **(If no, explain in Remarks.)**

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes (●) No ○

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** **(If needed, explain any answers in Remarks.)**

Summary of Findings - Attach site map showing sampling point locations, transects, important features, et

Hydrophytic Vegetation Present?	Yes ○ No (●)	**Is the Sampled Area within a Wetland?** Yes ○ No (●)
Hydric Soil Present?	Yes ○ No (●)	
Wetland Hydrology Present?	Yes ○ No (●)	If yes, optional Wetland Site ID:

Remarks:
Flag #F-5, Photo # 31NW

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15' Radius)				
1. Fraxinus americana	45	☑	60.0%	FACU
2. Rhamnus cathartica	30	☑	40.0%	FAC
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	75	= Total Cover		
Herb Stratum (Plot size: 5' Radius)				
1. Poa sp.	70	☑	51.9%	FAC
2. Galium mollugo	5	☐	3.7%	UPL
3. Asclepias syriaca	5	☐	3.7%	UPL
4. Solidago canadensis	30	☑	22.2%	FACU
5. Aster sp.	20	☐	14.8%	FAC
6. Achillea millefolium	5	☐	3.7%	FACU
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	135	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC:	2	(A)
Total Number of Dominant Species Across All Strata:	4	(B)
Percent of dominant Species That Are OBL, FACW, or FAC:	50.0%	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:		
OBL species	0	x 1 =	0	
FACW species	0	x 2 =	0	
FAC species	120	x 3 =	360	
FACU species	80	x 4 =	320	
UPL species	10	x 5 =	50	
Column Totals:	210	(A)	730	(B)

Prevalence Index = B/A = 3.476

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☐ **Dominance Test is > 50%**
- ☐ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Hydrophytic Vegetation Present? Yes ○ No (●)

Remarks: (Include photo numbers here or on a separate sheet.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: UP-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		Matrix %	Redox Features Color (moist)		Redox %	Type [1]	Loc²	Texture	Remarks
0-12	10YR	4/3	100%						Silt Loam	Rocky below

[1] Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ²Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ◉

Remarks:

Hydrology

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 27-Sep-12

Applicant/Owner: **State:** NY **Sampling Point:** UP-2

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Flat

Soil Map Unit Name: Ontario gravelly loam, 8 to 15 percent slopes **Cover Type:** OF

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) **(If no, explain in Remarks.)**

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes (●) No ( )

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** **(If needed, explain any answers in Remarks.)**

Summary of Findings - Attach site map showing sampling point locations, transects, important features, et

Hydrophytic Vegetation Present?	Yes ( ) No (●)	**Is the Sampled Area within a Wetland?** Yes ( ) No (●)
Hydric Soil Present?	Yes ( ) No (●)	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes ( ) No (●)	

Remarks:
Photo # 37SW

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15' Radius)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' Radius)				
1. Fragaria virginiana	5	☐	3.7%	FACU
2. Oxalis stricta	5	☐	3.7%	FACU
3. Daucus carota	35	☑	25.9%	UPL
4. Achillea millefolium	5	☐	3.7%	FACU
5. Ambrosia artemisiifolia	60	☑	44.4%	FACU
6. Dichanthelium clandestinum	10	☐	7.4%	FACW
7. Picris sp.	15	☐	11.1%	FACU
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	135	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	0	x 3 =	0
FACU species	90	x 4 =	360
UPL species	35	x 5 =	175
Column Totals:	135 (A)		555 (B)

Prevalence Index = B/A = 4.111

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☐ **Dominance Test is > 50%**
- ☐ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Hydrophytic Vegetation Present? Yes ( ) No (●)

Remarks: (Include photo numbers here or on a separate sheet.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: UP-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		Matrix %	Redox Features Color (moist)		Redox %	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR	4/3	100%						Silt Loam	
18-22+	10YR	4/4	95%	10YR	5/4	5%	C	M	Silt Loam	

[1] Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2]Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ◉

Remarks:

Hydrology

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 01-Oct-12

Applicant/Owner: **State:** NY **Sampling Point:** UP-3

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Flat

Soil Map Unit Name: Ontario loam, 2 to 8 percent slopes **Cover Type:** DFU

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) **(If no, explain in Remarks.)**

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes (●) No ( )

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** **(If needed, explain any answers in Remarks.)**

Summary of Findings - Attach site map showing sampling point locations, transects, important features, et

Hydrophytic Vegetation Present?	Yes ( ) No (●)	**Is the Sampled Area within a Wetland?**	Yes ( ) No (●)
Hydric Soil Present?	Yes ( ) No (●)	If yes, optional Wetland Site ID:	
Wetland Hydrology Present?	Yes ( ) No (●)		

Remarks:
Photos # 88N, 89S

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover		Indicator Status
Tree Stratum (Plot size: 30' Radius)				
1. Prunus serotina	60	☑	60.0%	FACU
2. Malus sp.	40	☑	40.0%	FACU
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	100	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15' Radius)				
1. Rhamnus cathartica	15	☑	37.5%	FAC
2. Carya cordiformis	25	☑	62.5%	FAC
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	40	= Total Cover		
Herb Stratum (Plot size: 5' Radius)				
1. Solidago canadensis	35	☑	46.7%	FACU
2. Lonicera sp.	25	☑	33.3%	FACU
3. Toxicodendron radicans	15	☑	20.0%	FAC
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	75	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC:	3	(A)
Total Number of Dominant Species Across All Strata:	7	(B)
Percent of dominant Species That Are OBL, FACW, or FAC:	42.9%	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:		
OBL species	0	x 1 =	0	
FACW species	0	x 2 =	0	
FAC species	55	x 3 =	165	
FACU species	160	x 4 =	640	
UPL species	0	x 5 =	0	
Column Totals:	215	(A)	805	(B)

Prevalence Index = B/A = 3.744

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☐ **Dominance Test is > 50%**
- ☐ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Hydrophytic Vegetation Present? Yes ( ) No (●)

Remarks: (Include photo numbers here or on a separate sheet.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: UP-3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		Matrix %	Redox Color (moist)		Redox %	Type[1]	Loc[2]	Texture	Remarks
0-11	10YR	4/3	100%						Silt Loam	
11-18	10YR	4/4	100%						Fine Sandy Loam	

[1] Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains   [2]Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ◉

Remarks:

Hydrology

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: IDA-2033A/OCIDA-Sewer/Road Improvements **City/County:** Clay/Onondaga **Sampling Date:** 01-Oct-12

Applicant/Owner: **State:** NY **Sampling Point:** UP-4

Investigator(s): B. Workman, A. Robedee **Landform (hillslope, terrace, etc.):** Flat

Soil Map Unit Name: Niagara silt loam, 0 to 4 percent slopes **Cover Type:** OF

Are climatic/hydrologic conditions on the site typical for this time of year? Yes (●) No ○ **(If no, explain in Remarks.)**

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes (●) No ○

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** **(If needed, explain any answers in Remarks.)**

Summary of Findings - Attach site map showing sampling point locations, transects, important features, et

Hydrophytic Vegetation Present?	Yes ○ No (●)	**Is the Sampled Area within a Wetland?** Yes ○ No (●)
Hydric Soil Present?	Yes ○ No (●)	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes ○ No (●)	

Remarks:
Photos # 90N, 91S

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15' Radius)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' Radius)				
1. Centaurea maculosa	55	☑	28.2%	UPL
2. Vicia sp.	5	☐	2.6%	FAC
3. Taraxacum officinale	15	☐	7.7%	FACU
4. Galium mollugo	20	☐	10.3%	UPL
5. Plantago major	35	☐	17.9%	FACU
6. Carex sp.	65	☑	33.3%	FAC
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	195	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC:	1	(A)
Total Number of Dominant Species Across All Strata:	2	(B)
Percent of dominant Species That Are OBL, FACW, or FAC:	50.0%	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	70	x 3 =	210
FACU species	50	x 4 =	200
UPL species	75	x 5 =	375
Column Totals:	195 (A)		785 (B)

Prevalence Index = B/A = 4.026

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☐ **Dominance Test is > 50%**
- ☐ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Hydrophytic Vegetation Present? Yes ○ No (●)

Remarks: (Include photo numbers here or on a separate sheet.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil

Sampling Point: UP-4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		Matrix %	Redox Color (moist)		Redox %	Type[1]	Loc[2]	Texture	Remarks
0-14	10YR	3/3	100%						Silty Clay Loam	
14-18	10YR	5/6	90%	10YR	6/1	5%	C	M	Clay Loam	
				10YR	4/3	5%	D	M	Clay Loam	

[1] Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2]Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3) (except in MLRA 143)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6) (Drop in LRR R?
- ☐ Dark Surface (S7) (MLRA 149B of LRR S)
- ☐ Polyvalue Below Surface (S8) (LRR R, S)
- ☐ Thin Dark Surface (S9) (LRR R, S)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, S)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12)
- ☐ Piedmont Floodplain Soils (F19)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ◉

Remarks:

Hydrology

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

APPENDIX C – JD Information

CHECKLIST OF INFORMATION INCLUDED WITH REQUESTS FOR JURISDICTIONAL DETERMINATIONS (JD)

1. Name (including POC if a corporation or other entity), complete mailing addresses and phone numbers of the following:

   Current Property Owner:

   Name: ______________________
   Address: ______________________
   Phone Number: ______________________

   Applicant (Project Sponsor):

   Name: ______________________
   Address: ______________________
   Phone Number: ______________________

   Wetland Consultant:

   Name: Terrestrial Environmental Specialists, Inc..
   Address: 23 County Route 6, Suite A, Phoenix, New York 13135
   Phone Number: 315-695-7228

2. 8½ x 11 Location Map **(see Figure 8)** showing:
   - UTM Grid Coordinates
   - Stream order and location
   - Head and discharge coordinates of each stream
   - Stream identification (TNWs, perennial RPWs, seasonal RPWs, or non-RPWs)

3. Cover letter **(included in report or to be provided)** describing the purpose of the request, a general description of the proposed project, the size (acres) of the parcel, and the size of the limits of the project site or review area (if smaller than the parcel).

4. Delineation report, including the following supporting information:

   - Description of any current and/or historic land uses on the site **(see Section 4.1 Site Description)**

   - DEC Wetlands Maps, NWI Maps, Soil Survey Maps **(see Figures 2, 3, and 4, respectively)**

   - Watershed size, drainage area size **(see Figure 8)**

   - Discussion of whether tributaries (streams) on the site are TNWs, perennial RPWs, seasonal RPWs, or non-RPWs **(see Figures 8 and 9)**

   - Waters of the U.S. – indicate presence of waters of U.S. in review area (check all that apply):
     - ☐ TNWs, including territorial seas
     - ☐ Wetlands adjacent to TNWs
     - ☒ Relatively permanent waters (RPWs) that flow directly or indirectly into TNWs
     - ☒ Non-RPWs that flow directly or indirectly into TNWs
     - ☒ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
     - ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs

CHECKLIST OF INFORMATION INCLUDED WITH REQUESTS FOR JURISDICTIONAL DETERMINATIONS (JD)

- ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
- ☐ Impoundments of jurisdictional waters
- ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

- If wetland on the site either abuts or is adjacent to a tributary, identify which tributary and discuss below:

Explanation: Wetlands A, B, D, I and J are associated with tributaries of Mud Creek. Wetlands L and N are associated with Shaver Creek. .

- If connection to a TNW, explain connection below:

Explanation: RPW's on the site have a surface water connection to the Oneida River, a TNW.

- Project wetlands are **0.5-3** aerial (straight) miles and **0.5-3** river miles from TNW.
- Project waters are **0.5-3** aerial (straight) miles and **0.5-3** river miles from TNW.

- Description of tributary substrate composition (e.g. silts, sands, gravel, etc.) **(see Section 4.3 Wetlands/Water Resources Descriptions)**

- Justification for proposed "isolated" (SWANCC) or non-jurisdictional determinations on any wetlands or streams **N/A**

- Description of vegetative cover types on the site **(see Section 4.2 Site Ecology and Section 4.3 Wetlands/Water Resources)**

- Wetland Delineation Forms for each cover type **(see Appendix B, Field Data Sheets)**

- Color photographs of all representative areas of the site **(see Appendix A, Photographs)**

Additional Air Emission Estimates
White Pine Commerce Park
Final Generic Environmental Impact Statement

The Onondaga County Industrial Development Agency (OCIDA) is proposing to develop a modern industrial park at its existing 339.26 acre White Pine Commerce Park property, located in the Town of Clay, New York. Pursuant to the NY State Environmental Quality Review Act (SEQRA), the OCIDA prepared a Generic Environmental Impact Statement (DGEIS) in 2012 for the proposed park, formerly referred to as the Clay Business Park.

The OCIDA has determined that additional air quality information may facilitate development decisions at the Park. The information below is provided in additional to information contained in the Draft GEIS issued in September 2012.

Several industry sectors have been identified as potential uses of the Park. The following list is not exhaustive and should not be interpreted as prohibiting any other potential uses or industries. This list is based on OCIDA knowledge of industry sectors showing interest in locating in the Upstate New York Region. These potential uses include:

- Manufacturing
  - Packaging
  - Solar (Thermal/Photovoltaic)
  - Electronics (Sensors and Controls)
  - Plastic and Metal Components
  - Biofuels

- Office Services

- Data Management
  - Data Centers

- Food Processing
  - Fruits & Vegetables
  - Sauces
  - Fish & Meat
  - Dry Goods
  - Alcohol & Spirits

- Electricity Generation (On-Site Use or Back-up)
  - Natural-gas fired turbines

Emission estimates are based on industry profiles prepared by the U.S Environmental Protection Agency (EPA), New York State Department of Environmental Conservation (NYSDEC) and other state environmental agencies and industry groups. Emissions are also based on actual industrial source information.

As discussed in the Draft GEIS (Chapter 1) up to 2.5 million square feet of development space may be constructed at the White Pine Commerce Park. The full build-out scenario that follows could reasonably be expected to occur given the existing physical conditions of the site. The scenario includes:

- A combined total of approximately 1.5 million square feet (SF) of manufacturing/assembly space

- Approximately 210,000 SF of laboratory, research and development (R&D) space
- Approximately 235,000 SF of logistics, warehousing, and/or shipping & receiving space
- Approximately 50,000 SF of office and administration space
- Approximately 175,000 SF of outdoor utility space, maintenance areas and service/storage yards
- Approximately 34,000 SF of on-site energy generation or electrical substation space
- Approximately 12,500 SF for wastewater treatment systems or pump stations

Significant sources of stationary air emissions are not expected from many of the possible uses at the Park. However, some manufacturing processes, R&D, and energy generation required for some operations could be sources of emissions. The estimated total emissions from potential industrial tenants at the proposed White Pine Commerce Park considered in the analysis are presented below and in the accompanying calculations.

Pollutant	Estimated Emissions (tons/year)	NYSDEC Major Source Threshold (tons/year)	US EPA "Presumed to Conform" Threshold (tons/year)
Nitrogen oxides (NO_x)	48.49	100	100
Carbon monoxide (CO)	46.17	100	100
Particulates (PM)	27.22	100	100
Volatile organic compounds (VOC)	48.88	50	50
Sulfur dioxide (SO_2)	0.93	100	100

Pursuant to 40 CFR 93, Subpart B, a conformity determination is not required to be completed for the proposed Park based on current assumptions about future uses. The estimated emissions are "presumed to conform" with the State Implementation Plan (US EPA Thresholds) and are not anticipated to cause or contribute to any violation of air quality standards (as discussed in the DGEIS).

The estimated emissions from the possible mix of industries that may locate at the Park are also below the NYSDEC Major Source (Title V) permit thresholds. It is important to note that these limits would apply individually to each facility at the Park.

Proposed White Pine Commerce Park
NYS Route 31, Town of Clay, NY
Final Generic Environmental Impact Statement
Air Emission Calculations

The following calculations are based on actual emission estimates from several industrial sources and actual manufacturing facility emissions. Because there are no data regarding the specific products to be manufactured, industrial processes to be used, or potential throughputs at the White Pine Commerce Park, these calculations also used emission factors and guidance from US EPA's *AP-42, Compilation of Air Pollutant Emission Factors* .

Manufacturing Uses	***Emission Estimates***
Packaging	
Packaging manufacturing is assumed to consist of bioplastic production. These processes are increasing in use and similar to conventional plastics manufacturing, but use feedstocks from renewable sources. VOC emissions result from the materials and processes used in plastics production. Particulate emissions may also be emitted, depending on the material produced.	
AP-42 , Section 6.6, contains emission factors for several types of plastics manufacturing. Based on these factors, emissions from packaging manufacturing are estimated at 3 tons per year of VOC and 5 tons per year of particulate emissions.	3 tpy VOC 5 tpy PM
Solar	
Several different types of solar panels are currently being manufactured. For the purposes of this estimate, it is assumed that panels would be manufactured using the cadmium-telluride process.	10 tpy PM
Based on a review of existing facility permits, particulate emissions are estimated at 10 tons per year. VOC emissions are estimated at 2 tons per year.	2 tpy VOC
Electronics	
For the purposes of this estimate, it is assumed that electronics manufacturing would consist largely of assembly processes using components manufactured elsewhere. As a result, emissions would be generated mainly from parts cleaning and similar processes. These processes typically use low evaporation solvents to reduce emissions. VOC emissions from electronics manufacturing are estimated at 5 tons per year.	5 tpy VOC
Plastic and Metal Components	
For the purposes of this estimate, it is assumed that plastic components would be manufactured at the facility from raw materials. Metal components would be formed from intermediate products (e.g. bars, wires, conduits) and not forged at the facility. Processes such as brazing, welding, heat-treatment, and surface coating may be utilized.	5 tpy VOC
As discussed above, emissions from plastics manufacturing are estimated at 5 tons per year of VOC and 5 tons per year of particulate emissions. Emissions from metal component manufacturing are estimated to be similar. While VOC emissions would not result from forming and shaping of metal products, VOCs would be emitted from surface coating operations. Particulate emissions would result from welding, cutting, grinding, and similar operations.	5 tpy PM
For the purposes of this estimate it is assumed that process heating for plastic and metal component manufacturing would not be required.	

Biofuels

Biofuel production is expected to be biodiesel or bioethanol.

For the purposes of this estimate, biodiesel production is assumed to use vegetable oils. These oils typically have high boiling point and low vapor pressures, and processing is typically performed at temperatures below 200 degF. As a result, only small amounts of VOC are released during processing. Reclamation of methanol used in the process may generate moderate amounts of VOC.

Emission factors for biodiesel production were not available. Based on consultant experience with chemical manufacturing operations, emissions from biodiesel production are estimated at 10 tons per year of VOC. 10 tpy VOC

Bioethanol is produced by fermentation of cellulose-containing plant material. Prior to fermentation, the material must be treated to release the cellulose for use in the fermentation process. It is assumed that a low temperature and low pressure process, such as concentrated acid hydrolysis, would be used for pretreatment. Emissions from bioethanol production are estimated at 10 tons per year of VOC.

It is likely that a biofuel production facility would require process heating. It is assumed that this heat would be generated via a 20 MMBTU/hr natural gas-fired boiler. Emissions from the use of this boiler on a continuous basis, based on *AP-42* , Section 1.4, are as follows:

Estimated natural gas use: 172 MMSCF/yr

Pollutant	Emission Factor (lb/MMSCF)	Emissions (tons/yr)	
Nitrogen oxides (NOx)	100	8.59	171.7647 MMSCF
Carbon monoxide (CO)	84	7.21	
Particulates	7.6	0.65	
Volatile Organic Compounds (VOC)	5.5	0.47	
Sulfur dioxide (SO2)	0.6	0.05	

<u>Food Production</u>

Fruits/Vegetables/Sauces

VOC is released during the processing and canning of fruits, vegetables and sauces. Emission factors for food production were not available, but estimated from an existing food production facility in Montgomery County NY. Emissions are estimated at 10 tons per year of VOC. 10 tpy VOC

It is likely that a fruit/vegetable/sauce production facility would require process heating. It is assumed that this heat would be generated via a 20 MMBTU/hr natural gas-fired boiler. Emissions from the use of this boiler on a continuous basis, based on *AP-42* , Section 1.4, are as follows:

Estimated natural gas use: 172 MMSCF/yr

Pollutant	Emission Factor (lb/MMSCF)	Emissions (tons/yr)	
Nitrogen oxides (NOx)	100	8.59	171.7647 MMSCF
Carbon monoxide (CO)	84	7.21	
Particulates	7.6	0.65	
Volatile Organic Compounds (VOC)	5.5	0.47	
Sulfur dioxide (SO2)	0.6	0.05	

Fish/Meat

It is assumed that fish/meat production would consist of processed foods. No significant emissions are expected from these processes. However it is likely that process heating would be required. It is assumed that it would be generated via a 5 MMBTU/hr natural gas-fired boiler. Emissions from the use of this boiler on a continuous basis, based on *AP-42* , Section 1.4, are as follows:

Estimated natural gas use: 43 MMSCF/yr

Pollutant	Emission Factor (lb/MMSCF)	Emissions (tons/yr)	
Nitrogen oxides (NOx)	100	2.15	42.94118 MMSCF
Carbon monoxide (CO)	84	1.80	
Particulates	7.6	0.16	
Volatile Organic Compounds (VOC)	5.5	0.12	
Sulfur dioxide (SO2)	0.6	0.01	

Dry Goods

Particulate emissions are released during the processing of dried goods. Emission factors for dry good production were not available, but estimated from information on existing production facility emissions. Emissions are estimated at 2 tons per year of particulates. 2 tpy PM

Dry goods production is not expected to require significant amounts of process heating. If heating is required, it is assumed that it would be generated via a 5 MMBTU/hr natural gas-fired boiler. Emissions from the use of this boiler on a continuous basis, based on *AP-42* , Section 1.4, are as follows:

Estimated natural gas use: 43 MMSCF/yr

Pollutant	Emission Factor (lb/MMSCF)	Emissions (tons/yr)		
Nitrogen oxides (NOx)	100	2.15	42.94118	MMSCF
Carbon monoxide (CO)	84	1.80		
Particulates	7.6	0.16		
Volatile Organic Compounds (VOC)	5.5	0.12		
Sulfur dioxide (SO2)	0.6	0.01		

Alcohol and Spirits

VOC emissions are released during fermentation and distillation steps of alcohol production. *AP-42* , Section 9.12.3, provides some limited emission factors for fermentation. Based on these factors, emissions from fermentation are estimated at 3 tons per year of VOC. Based on actual distillation operations, emissions are estimated at 2 tons per year of VOC. It is also expected that material handling operations would generate particulate emissions of 2 tons per year.

2 tpy PM
5 tpy VOC

It is likely that alcohol and spirits production would require process heating. It is assumed that it would be generated via a 5 MMBTU/hr natural gas-fired boiler. Emissions from the use of this boiler on a continuous basis, based on *AP-42* , Section 1.4, are as follows:

Estimated natural gas use: 43 MMSCF/yr

Pollutant	Emission Factor (lb/MMSCF)	Emissions (tons/yr)		
Nitrogen oxides (NOx)	100	2.15	42.94118	MMSCF
Carbon monoxide (CO)	84	1.80		
Particulates	7.6	0.16		
Volatile Organic Compounds (VOC)	5.5	0.12		
Sulfur dioxide (SO2)	0.6	0.01		

Data Centers

During normal operation, no emissions would be expected from a data center located at the Park. In order to maintain services during periods of electrical service interruption, any data center would include several emergency generators. These generators would meet the latest EPA standards for non-road engines. A total generator capacity of 25,000 kWe is estimated for data centers. Not all of this capacity would be used at one time, as several generators would serve as backups to other generators. As a result, the effective capacity of the generators would be approximately 17,500 kWe.

Generators are typically tested at low load levels (10%) on a weekly basis for one half-hour. Approximately 65 MW-hr per year would result from testing operations. For the purposes of this estimate, it is assumed that full backup power (80% load) would be required for 30 hours per year, or 420 MW-hr per year.

The estimated emissions are based on the EPA emission standards for large emergency generators and *AP-42* , Section 3.4.

Estimated annual use: 485 MW-hr

Pollutant	Emission Factor (lb/MW-hr)	Emissions (tons/yr)		
Nitrogen oxides (NOx)	14.11	3.42	485	MW-hr
Carbon monoxide (CO)	7.72	0.17		
Particulates	0.44	0.01		
Volatile Organic Compounds (VOC)	3.37	0.07		

Sulfur dioxide (SO2)	2.75	0.06

On-Site Electricity Generation

The Park may utilize on-site electricity generation. It is assumed that electricity would be generated using natural gas-fired turbines. The estimated emissions below are based on a 3.5 megawatt turbine operating on a continuous basis. The estimates for NOx, VOC and CO are based on manufacturer's specifications for a representative turbine. Estimates for other pollutants are based on AP-42, Section 3.1.

Estimated natural gas use: 428,977 MMBTU/yr

Pollutant	Emission Factor (lb/MMBTU)	Emissions (tons/yr)	
Nitrogen oxides (NOx)	0.1	21.45	428977.2 MMBTU
Carbon monoxide (CO)	0.122	26.17	
Particulates	0.0066	1.42	
Volatile Organic Compounds (VOC)	0.035	7.51	
Sulfur dioxide (SO2)	0.0034	0.73	

Air Emission Totals

Pollutant	**Emissions (tons/yr)**
Nitrogen oxides (NOx)	**48.49**
Carbon monoxide (CO)	**46.17**
Particulates	**27.22**
Volatile Organic Compounds (VOC)	**48.88**
Sulfur dioxide (SO2)	**0.93**

Air Quality Assessment Information Sources:

http://www.srsbiodiesel.com/Degumming.aspx
http://www.jatrophaworld.org/makingbiodiesel_56.html
http://en.wikipedia.org/wiki/Biodiesel_production
http://www.hort.purdue.edu/newcrop/ncnu02/v5-017.html

BeechNut/Hero emission estimate (food)
St. Gobain emissions (plastics)
Avantor Distillation emissions (methanol recovery & alcohol distillation)
St. Joseph Hospital emissions (turbine)

plastics: AP-42 indicates relatively low emissions.. ~2.5 tons per 1 million pounds for polystyrene, ~2 tons for PETE

alcohol/spirits: used 1,000,000-2,000,000 gal/yr, 10% yield (grain to finished product)

http://www.ecy.wa.gov/programs/air/quincydatacenter/docs/A-Revised-Final-Tier2-Risk-Analysis_Vantage_11-28-2012.pdf
generator sizing & primary/backup ratio

http://wwwapp.epa.ohio.gov/dapc/permits_issued/524143.pdf
First solar permit from Ohio.

some info on generators req'd for data centers
http://www.ecy.wa.gov/programs/air/quincydatacenter/index.html

Terrestrial Environmental Specialists, Inc.
23 COUNTY ROUTE 6, SUITE A, PHOENIX, NY 13135
(315) 695-7228 fax: (315) 695-3277 www.tesenvironmental.com

September 16, 2013

Ms. Robyn Niver, Biologist
U.S. Fish and Wildlife Service
3817 Luker Road
Cortland, New York 13045

Re: Indiana Bat Habitat Assessment and Proposed Conservation Measures for the OCIDA White Pine Commerce Park and Sanitary Sewer Line in the Town of Clay, Onondaga County, New York
TES File No. 2033B

Dear Robyn:

Terrestrial Environmental Specialists, Inc. (TES) performed an Indiana bat (*Myotis sodalis*) summer roost assessment on two areas in Onondaga County, New York. These assessments were conducted at the proposed White Pine Commerce Park site in the Town of Clay and on a proposed sanitary sewer line route also in the Town of Clay.

The proposed White Pine Commerce Park site is located north of NYS Route 31 and east of Caughdenoy Road (Figure 1). The proposed sanitary sewer line is located between the Oak Orchard Waste Water Treatment Plant and the White Pine Commerce Park site (Figure 2).

The Onondaga County Industrial Development Agency (OCIDA) White Pine Commerce Park site was reviewed on June 18, 2013, for potential roost trees. Seventeen (17) sample plots were examined at the site. The habitat assessment along the sewer line was performed on June 14, 2013. Sixteen (16) plots were examined along the sewer line. The data compiled from the assessment areas have been put into Tables 1 and 2 and are attached to this letter report. Figures and photographs are also attached at the end of this report.

Based on previous information that TES received from Mr. Carl Herzog, Biologist with the New York State Department of Environmental Conservation (NYSDEC), there are two known summer roost sites approximately 4.5 to 5.3 miles southwest of the proposed White Pine Commerce Park site and approximately 2.5 and 4 miles southwest of the proposed sanitary sewer line route.

The proposed White Pine Commerce Park site was dominated by green and white ash and red maple trees (Table 1). These trees were found to range from approximately 35 to 90 feet tall and had diameters at breast height (dbh) between 6.5 to 20.0 inches (Table 1). However, four sample plots (2, 3, 5, 15, and 16) within the site did include shagbark hickory and American elm with exfoliating bark (Table 1 and Figure 3).

TES mapped wooded land within the proposed White Pine Commerce Park site using recent aerial photography (Figure 3). The total acreage within the site is approximately 339 acres. Of this there is approximately 147 acres of wooded land within the site. The total wooded area to be cleared is only 22.5 acres (15.3%) of the wooded land within the site. This is a minor impact to forested lands on and in the vicinity of the project. However, in order to prevent any potential chance of a direct “take” of an Indiana bat at the site, OCIDA proposes to cut all wooded sections between October 31 to March 31 [to be consistent with United States Fish and Wildlife Service (USFWS) guidelines].

Overall, the dominant trees within the sanitary sewer line route included green ash and American elm. These trees were found to range from approximately 25 to 70 feet tall and had diameters at breast height (dbh) between 3.0 to 18.0 inches (Table 2). With the exclusion of two sample plots, no trees with exfoliating bark and/or crevices were found on either living or dead trees (Table 2). Sample plots 1 and 5 contained trees with either peeling bark or holes; however, these trees were located along the edge of the sewer line route (Table 2 and Figures 4-1 through 4-6).

TES mapped wooded land within the sanitary sewer line route using aerial photography (Figures 4-1 through 4-6). The total acreage within the proposed sanitary sewer route is 46.96 acres (Figure 6). Of this there is approximately 15.49 acres of wooded land within the proposed route (Figure 6). The total wooded area to be cleared is only 8.26% of the proposed sewer line route (Figure 6). This is a minor impact to forested lands on and in the vicinity of the sewer line project. However, in order to prevent any potential chance of a direct "take" of an Indiana bat at the proposed sanitary sewer route, OCIDA proposes to cut all wooded sections between October 31 to March 31 (to be consistent with USFWS guidelines). No disturbance to wetlands (including forested wetlands) will occur, since directional boring is being proposed in those areas.

A substantial area of wooded land will remain on the White Pine Commerce Park site. Approximately 124.5 acres (+/- 84.7%) of wooded uplands and wetlands will remain, much of which is located north of an existing New York Power Authority transmission line corridor (Figure 5).

OCIDA proposes no use of chemicals (*e.g.* colorants, copper sulfate) in and around stormwater management ponds. OCIDA will also install orange fencing to mark the limits of clearing.

In closing, we do not believe that the development of the proposed White Pine Commerce Park and the sanitary sewer line is a significant impact to Indiana bat. OCIDA proposes to follow USFWS guidelines during and after construction. OCIDA has modified their plans to minimize impacts to wetland and wooded areas at the site to the maximum extent practicable, while still remaining a viable project.

I trust this information is suitable for your project review needs. If you have any questions, please feel free to contact me.

Sincerely,
TERRESTRIAL ENVIRONMENTAL SPECIALISTS, INC.

Donald L. Coogan, Jr.
Vice President

DLC/dmm
Enclosures

cc: Ms. Mary Beth Primo – OCIDA
Mr. Walter Kalina – CHA
Mr. John Klucsik Esq.

Table 1. Plot Data for the OCIDA White Pine Commerce Park Site

Plot No.	Figure No.	Photo No.	Cover Type	Dominant Tree Species	Height Averages (feet)	DBH Ranges (inches)	Comments
Plot 1	3	1	Deciduous Forest Upland	*Fraxinus americana, Prunus serotina*	60	*F. americana* 6.5-6.8 *P. serotina* 12.7-29.2	-
Plot 2	3	2	Scrub-Shrub Upland	*Fraxinus pennsylvanica, Ulmus americana, Carya ovata*	*F. pennsylvanica* 60 *U. americana* 70 *C. ovata*.70	*F. pennsylvanica* 12.5 *U. americana* 11.0 *C. ovata*.20.0	most trees were on the edge of the plot. *Ulmus americana* and *Carya ovata* had exfoliating bark.
Plot 3	3	3	Deciduous Forest Upland	*Carya ovata, Carya cordiformis, Fraxinus americana, Prunus serotina*	*C. ovata* 80 *C. cordiformis* 80 *F. americana* 65 *P. serotina* 65	*C. ovata* 5.0-25.5 *C. cordiformis* 8.1-24.8 *F. americana* 10.5 *P. serotina* 10.5	some *Carya ovata* have exfoliating bark
Plot 4	3	4	Deciduous Forest Upland	*Carya ovata, Carya cordiformis, Acer rubrum. Prunus serotina*	*C. ovata* 70 *C. cordiformis* 70 *A. rubrum* 80 *P. serotina* 80	*C. ovata* 9.3 *C. cordiformis* 7.5 *A. rubrum* 7.3-20.2 P. *serotina* 14.4	trees did not have exfoliating bark
Plot 5	3	5	Deciduous Forest Upland	*Carya ovata, Acer rubrum.*	60-90	*C. ovata* 5.0-12.7 *A. rubrum* 10.5	many trees with exfoliating bark over 12'' dbh
Plot 6	3	6	Mixed Forest Upland	*Tsuga canadensis, Fagus grandifolia, Betula alleghaniensis*	*T. canadensis* 60 *F. grandifolia* 70 *B. alleghaniensis* 70	*T. canadensis* 12.5-13.7 *F. grandifolia* 12.3 *B. alleghaniensis* 9.9-14.2	-
Plot 7	3	7	Mixed Forest Upland	*Carya cordiformis, Liriodendron tulipifera, Acer saccharinum, Betula alleghaniensis, Fagus grandifolia, Tsuga canadensis*	*C. cordiformis*80 *L. tulipifera* 80 *A. saccharinum* 60 *B. alleghaniensis* 50 *F. grandifolia* 40 *T. canadensis* 50	*C. cordiformis* 16.5 *L. tulipifera* 15.2 *A. saccharinum* 7.8 *B. alleghaniensis* 6.0 *F. grandifolia* 6.5 *T. canadensis* 8.5	-
Plot 8	3	8	Mixed Forest Upland	*Tsuga canadensis, Fagus grandifolia, Acer saccharinum*	*T. canadensis* 60 *F. grandifolia* 70 *A. saccharinum* 70	*T. canadensis* 10.3-13.1 *F. grandifolia* 7.5-10.7 *A. saccharinum* 4.6	-

Table 1. (cont.)

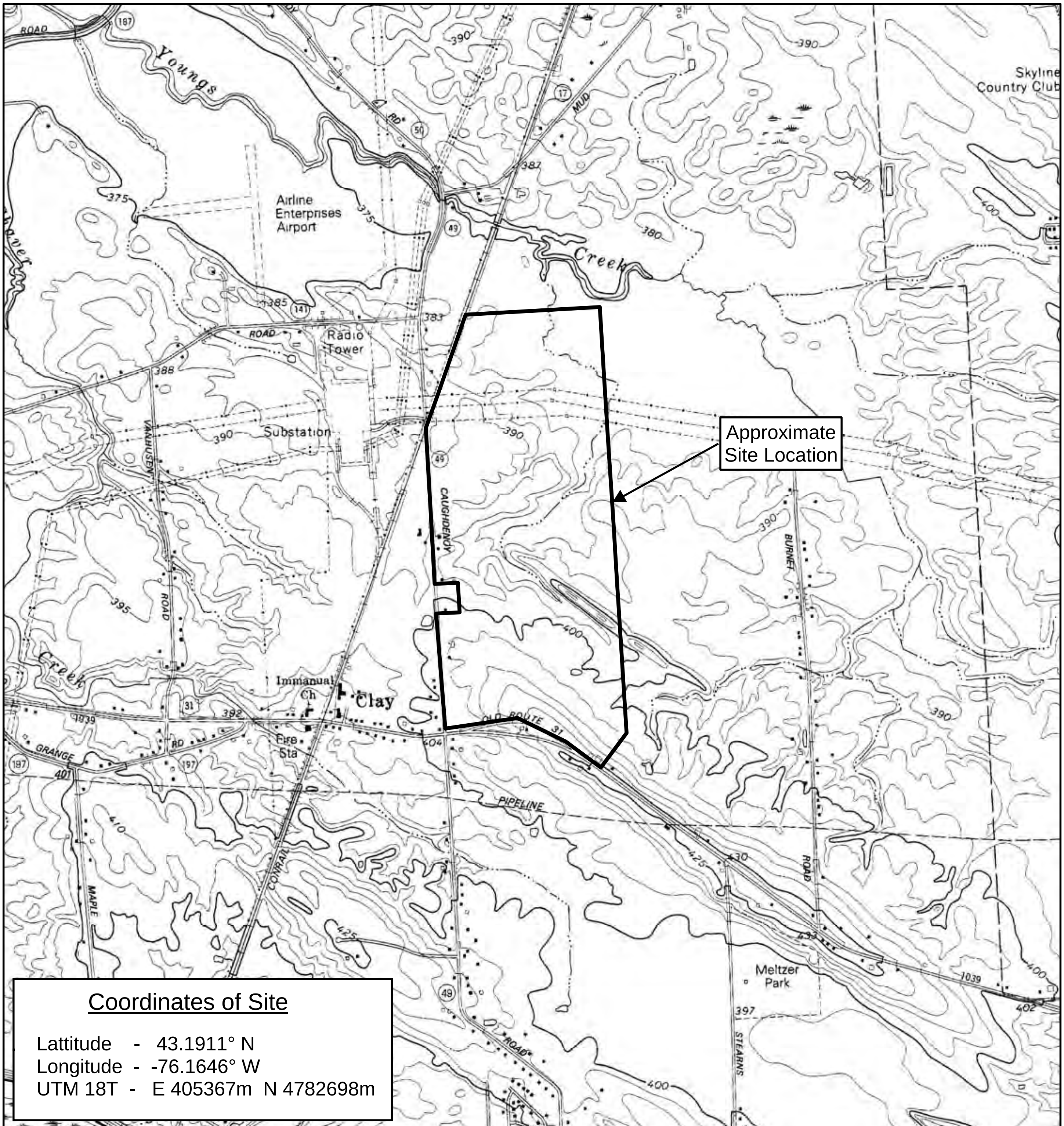
Plot No.	Figure No.	Photo No.	Cover Type	Dominant Tree Species	Height Averages (feet)	DBH Ranges (inches)	Comments
Plot 9	3	9	Deciduous Forest Upland	*Liriodendron tulipifera, Acer rubrum, Fraxinus americana*	*L. tulipifera* 80 *A. rubrum* 65 *F. americana* 65	*L. tulipifera* 10.0-13.5 *A. rubrum* 6.0-11.4 *F. americana* 6.0	-
Plot 10	3	10	Deciduous Forest Upland	*Liriodendron tulipifera, Acer rubrum, Fraxinus americana*	*L. tulipifera* 70 *A. rubrum* 65 *F. americana* 65	*L. tulipifera* 8.5-10.7 *A. rubrum* 7.4-14.0 *F. americana* 9.5	-
Plot 11	3	11-12	Mixed Forest Upland	*Picea abies, Acer rubrum, Fraxinus americana*	70	*P. abies* 6.9-19.7 *A. rubrum* 8.0-20.0 *F. americana* 10.0	-
Plot 12	3	13	Scrub-Shrub Upland	*Fraxinus pennsylvanica*	35	10.0	-
Plot 13	3	14	Deciduous Forest Upland	*Fraxinus americana, Acer rubrum, Populus tremuloides, Ulmus americana*	*F. americana* 60 *A. rubrum* 60 *P. tremuloides* 70 *U. americana* 60	*F. americana* 7.3-9.7 *A. rubrum* 8.0-8.8 *P. tremuloides* 11.2-13.6 *U. americana* 5.0	-
Plot 14	3	15	Deciduous Forest Wetland	*Acer saccharinum, Tsuga canadensis, Carya cordiformis, Tilia americana*	*A. saccharinum* 75 *T. canadensis* 55 *C. cordiformis* 90 *T. americana* 75	*A. saccharinum* 10.0-16.7 *T. canadensis* 7.0-11.0 *C. cordiformis* 12.4-14.5 *T. americana* 10.2	-
Plot 15	3	16	Deciduous Forest Wetland	*Fraxinus pennsylvanica, Acer rubrum, Ulmus americana*	70-80	*F. pennsylvanica* 6.0-17.0 *A. rubrum* 13.0-16.0 *U. americana* 12.5	*Ulmus americana* dead with exfoliating bark within plot
Plot 16	3	17	Deciduous Forest Wetland	*Carya ovata, Acer rubrum, Fraxinus pennsylvanica, Ulmus americana*	*C. ovata* 80 *A. rubrum* 85 *F. pennsylvanica* 80 *U. americana* 65	*C. ovata* 6.0-14.0 *A. rubrum* 11.5-18.0 *F. pennsylvanica* 9.5 *U. americana* 5.0	*Carya ovata* found throughout plot with exfoliating bark
Plot 17	3	18	Deciduous Forest Wetland	*Acer rubrum, Fraxinus pennsylvanica*	*A. rubrum* 80 *F. pennsylvanica* 70	*A. rubrum* 4.5-20.0 *F. pennsylvanica* 9.0	-

Table 2. Plot Data for the OCIDA Sewer Line Right-of-Way

Plot No.	Figure No.	Photo No.	Cover Type	Dominant Tree Species	Height Averages (feet)	DBH Ranges (inches)	Comments
Plot 1	4-1	19	Deciduous Forest Upland	*Fraxinus pennsylvanica, Ulmus americana*	40-50	6.6-14.5	most trees were on the edge of the plot. One *Ulmus americana* was dead with peeling bark at the top
Plot 2	4-1	20	Deciduous Forest Upland	*Fraxinus pennsylvanica, Acer negundo*	40-50	*F. pennsylvanica* 4.4-5.1 *A. negundo* 8.0-12.4	-
Plot 3	4-1	21	Deciduous Forest Upland	*Fraxinus pennsylvanica, Ulmus americana*	60-70	*F. pennsylvanica* 6.5-11.6 *U. americana* 3.5	-
Plot 4	4-1	22	Deciduous Forest Upland	*Fraxinus pennsylvanica, Acer rubrum, Salix* sp., *Robinia pseudoacacia*	*F. pennsylvanica* 50 *A. rubrum* 80 *Salix* sp.50 *R. pseudoacacia* 50	*F. pennsylvanica* 10.0-14.0 *A. rubrum* 16.0 *Salix* sp. 13.2-13.5 *R. pseudoacacia* 14.0	-
Plot 5	4-2	23	Deciduous Forest Upland	*Acer rubrum, Fraxinus pennsylvanica, Acer negundo, Prunus serotina, Ulmus americana*	*A. rubrum* 66 *F. pennsylvanica* 66 *A. negundo* 30 *P. serotina* 30 *U. americana* 30	*A. rubrum* 10.0-20.5 *F. pennsylvanica* 12.0-18.0 *A. negundo* 7.2-10.1 *P. serotina* 4.0 *U. americana* 6.8	a dead tree with holes in the top found outside of the sewer line right-of-way
Plot 6	4-2	24	Deciduous Forest Upland	*Fraxinus pennsylvanica, Ulmus americana*	70	*F. pennsylvanica* 7.4-13.0 *U. americana* 3.0	-
Plot 7	4-2	25	Deciduous Forest Upland	*Fraxinus pennsylvanica, Ulmus americana*	25	*F. pennsylvanica* 3.0-4.0 *U. americana* 3.5	-
Plot 8	4-2	26	Deciduous Forest Upland	*Fraxinus pennsylvanica, Populus deltoides*	*F. pennsylvanica* 25 *P. deltoides* 80	*F. pennsylvanica* 3.0-4.0 *P. deltoides* 23.0	-
Plot 9	4-3	27	Deciduous Forest Upland	*Quercus rubra, Acer saccharinum, Fraxinus americana, Prunus serotina, Populus deltoides*	*Q. rubra* 70 *A. saccharinum* 55 *F. americana* 70 *P. serotina* 70 *P. deltoides* 70	*Q. rubra* 12.5 *A. saccharinum* 5.7-7.1 *F. americana* 7.5 *P. serotina* 7.7 *P. deltoides* 22.0	

Table 2. (cont.)

Plot No.	Figure No.	Photo No.	Cover Type	Dominant Tree Species	Height Averages (feet)	DBH Ranges (inches)	Comments
Plot 10	4-3	28	Deciduous Forest Upland	*Quercus rubra, Acer saccharinum, Liriodendron tulipifera , Betula alleghaniensis, Tsuga canadensis*	*Q. rubra 80* *A. saccharinum 65* *L. tulipifera 80* *B. alleghaniensis 30* *T. canadensis 65*	*Q. rubra* 57.7 *A. saccharinum* 15.7 *L. tulipifera* 8.7-12.6 *B. alleghaniensis* 4.0 *T. canadensis* 16.3	-
Plot 11	4-3	29	Deciduous Forest Upland	*Populus tremuloides, Ulmus americana*	70	*P. tremuloides* 9.0-18.0 *U. americana* 4.0	-
Plot 12	4-5	30	Deciduous Forest Upland	*Populus tremuloides, Ulmus americana, Fraxinus pennsylvanica*	*P. tremuloides* 25 *U. americana* 30 *F. pennsylvanica* 25	*P. tremuloides* 8.3 *U. americana* 3.5-12.0 *F. pennsylvanica* 5.2-6.3	-
Plot 13	4-5	31	Deciduous Forest Upland	*Acer saccharinum, Populus tremuloides, Betula alleghaniensis, Fraxinus americana*	*A. saccharinum* 50 *P. tremuloides* 75 *B. alleghaniensis* 50 *F. americana* 75	*A. saccharinum* 6.7 *P. tremuloides* 10.9-15.0 *B. alleghaniensis* 5.5-7.5 *F. americana* 4.6	-
Plot 14	4-5	32	Deciduous Forest Upland	*Fraxinus pennsylvanica, Acer rubrum, Populus tremuloides*	*F. pennsylvanica* 65 *A. rubrum* 75 *P. tremuloides* 75	*F. pennsylvanica* 3.6-5.7 *A. rubrum* 3.2-8.5 *P. tremuloides* 14.0	-
Plot 15	4-6	33	Deciduous Forest Upland	*Fraxinus americana*	*F. americana* 25	*F. americana* 3.9-4.8	-
Plot 16	4-6	34	Mixed Forest Upland	*Acer saccharinum, Betula alleghaniensis, Tsuga canadensis*	*A. saccharinum* 75 *B. alleghaniensis* 60 *T. canadensis* 60	*A. saccharinum* 3.5-170 *B. alleghaniensis* 2.5 *T. canadensis* 10.7-13.9	-



Coordinates of Site

Lattitude - 43.1911° N
Longitude - -76.1646° W
UTM 18T - E 405367m N 4782698m

Prepared by TERRESTRIAL ENVIRONMENTAL SPECIALISTS, Inc.

0 2,000 Feet

1 inch = 2,000 feet

N

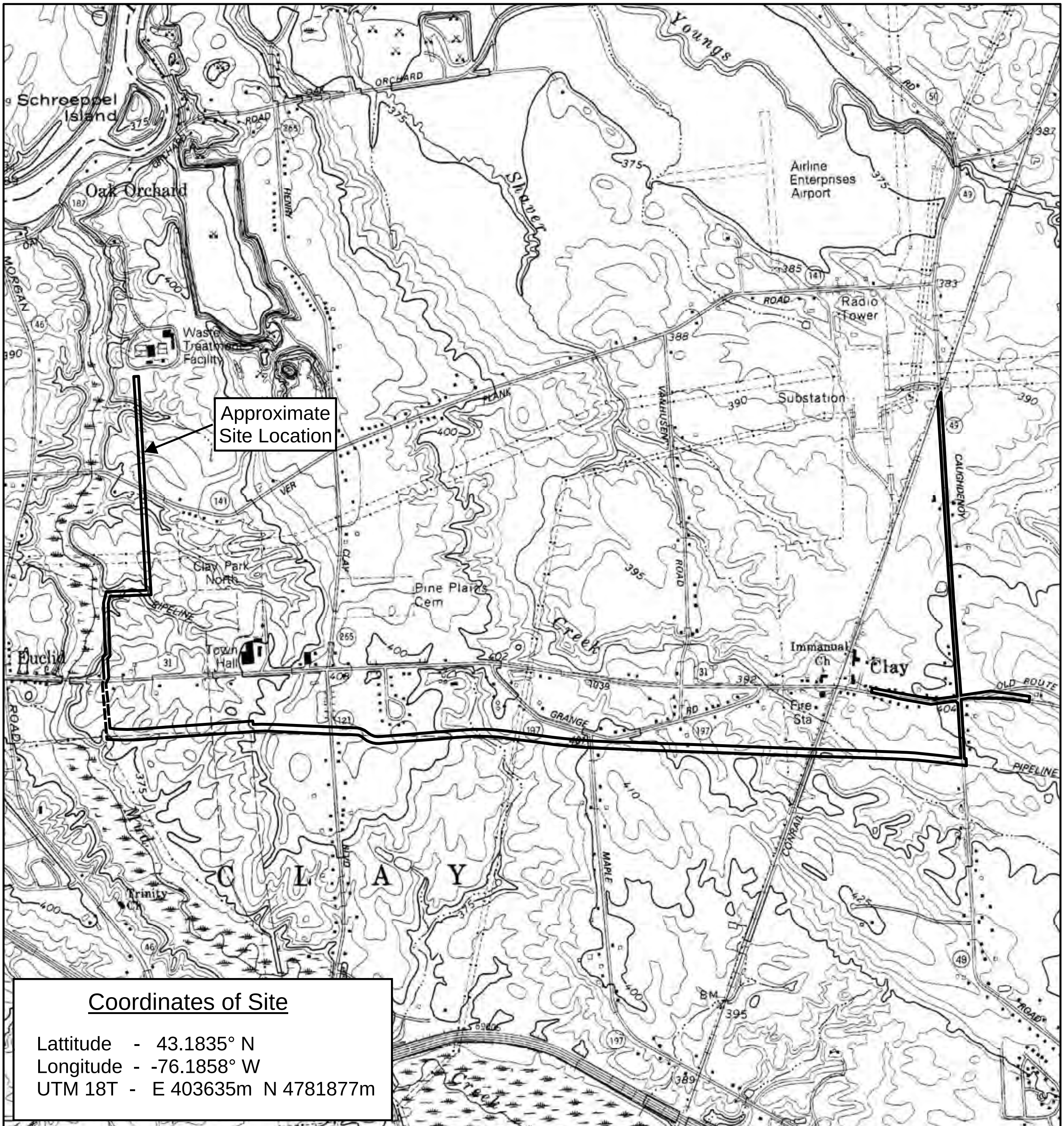
Figure 1. NYS DOT Topographic Map

Site Location

Brewerton Quadrangle

1989

TES File: IDA-2033B\2033B-Site-DOT-Fig1.mxd\8-27-2013



Coordinates of Site

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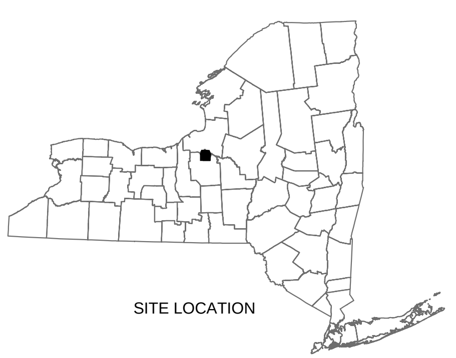
Longitude - -76.1858° W
UTM 18T - E 403635m N 4781877m



Prepared by TERRESTRIAL ENVIRONMENTAL SPECIALISTS, Inc.

0 2,000 Feet

1 inch = 2,000 feet

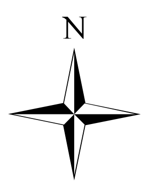


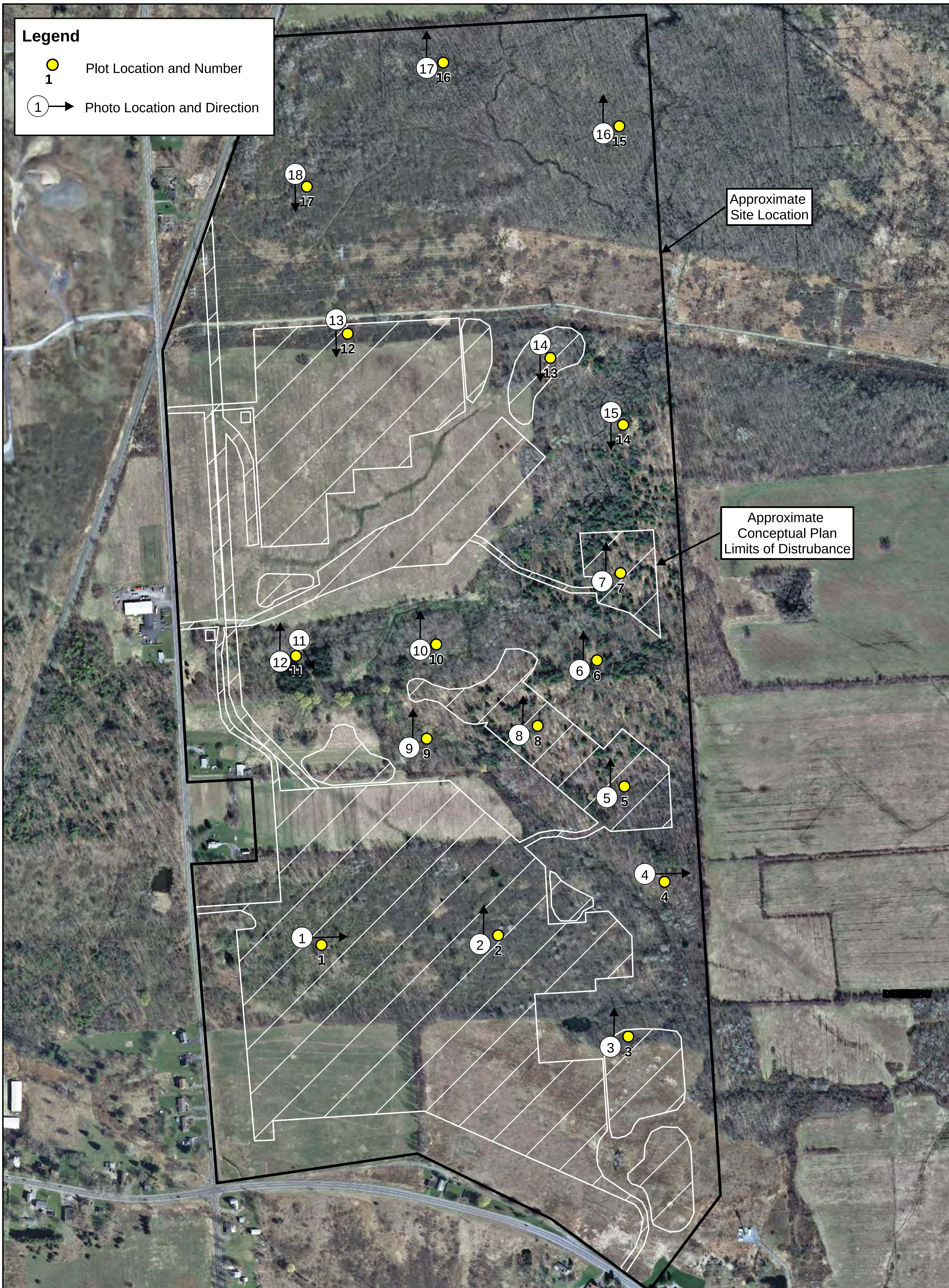
Figure 2. NYS DOT Topographic Map

Site Location

Brewerton Quadrangle

1989

TES File: IDA-2033B\2033B-Pipeline-Fig2.mxd\8-27-2013



N

0 500

Feet

1 inch = 500 feet

Aerial Photograph obtained from NYS GIS Clearinghouse 2012

Figure Prepared by Terrestrial Environmental Specialists, Inc.

Figure 3.

OCIDA White Pine Commerce Park Indiana Bat Habitat Assessment

Aerial Photograph of Site with Plot and Photograph Locations

TES File: IDA-2033B\2033B-Aerial-Site.mxd\8-27-2013

Aerial Photograph Obtained from NYS GIS Clearinghouse 2009

Figure Prepared by Terrestrial Environmental Specialists, Inc.

Figure 4-1.

OCIDA Sanitary Sewer Line Indiana Bat Habitat Assessment

Aerial Photograph of Site with Plot and Photograph Locations

Sheet 1 of 6

TES File: IDA-2033B\2033B-Pipeline-Aerial1of6.mxd\8-27-2013

N

0 300

Feet

1 inch = 300 feet

Aerial Photograph Obtained from NYS GIS Clearinghouse 2009

Figure Prepared by Terrestrial Environmental Specialists, Inc.

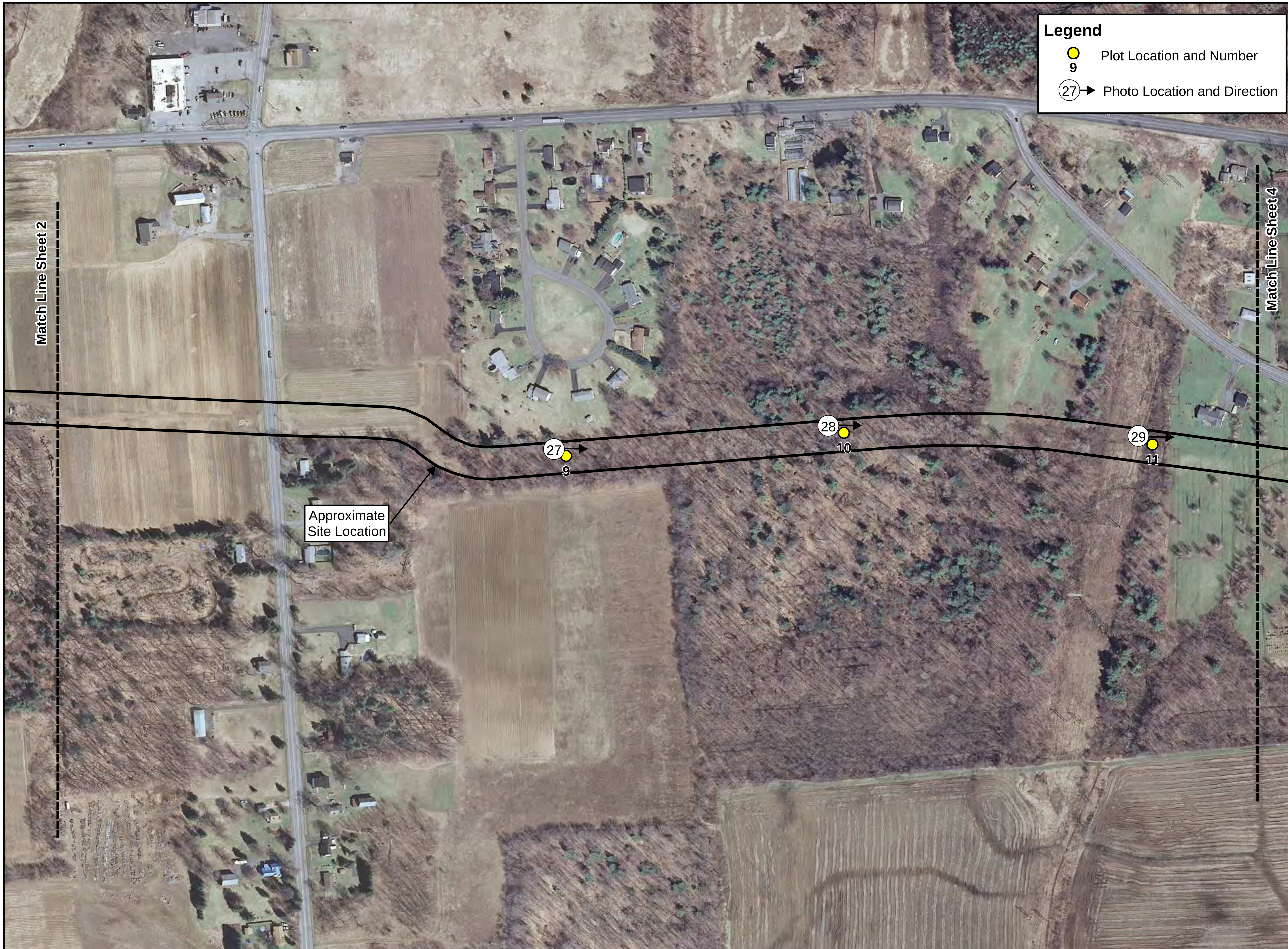
Figure 4-2.

OCIDA Sanitary Sewer Line Indiana Bat Habitat Assessment

Aerial Photograph of Site with Plot and Photograph Locations

Sheet 2 of 6

TES File: IDA-2033B\2033B-Pipeline-Aerial2of6.mxd\8-27-2013



N

0 300

Feet

1 inch = 300 feet

Aerial Photograph Obtained from NYS GIS Clearinghouse 2009

Figure Prepared by Terrestrial Environmental Specialists, Inc.

Figure 4-3.

OCIDA Sanitary Sewer Line Indiana Bat Habitat Assessment

Aerial Photograph of Site with Plot and Photograph Locations

Sheet 3 of 6

TES File: IDA-2033B\2033B-Pipeline-Aerial3of6.mxd\8-27-2013

Aerial Photograph Obtained from NYS GIS Clearinghouse 2009

Figure Prepared by Terrestrial Environmental Specialists, Inc.

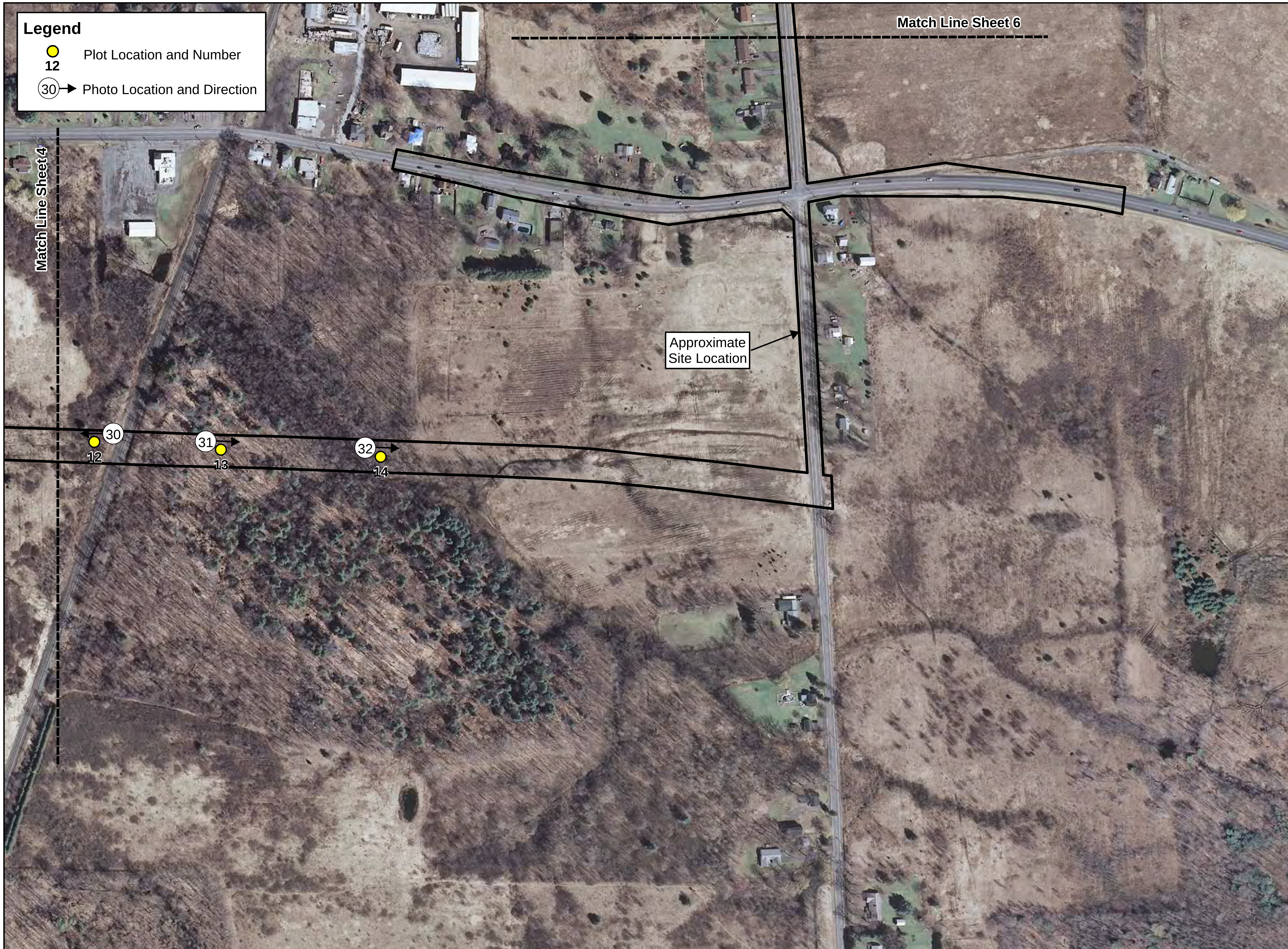
Figure 4-4.

OCIDA Sanitary Sewer Line Indiana Bat Habitat Assessment

Aerial Photograph of Site with Plot and Photograph Locations

Sheet 4 of 6

TES File: IDA-2033B\2033B-Pipeline-Aerial4of6.mxd\8-27-2013



N
0 300
Feet
1 inch = 300 feet

Aerial Photograph Obtained from NYS GIS Clearinghouse 2009

Figure Prepared by Terrestrial Environmental Specialists, Inc.

Figure 4-5.

OCIDA Sanitary Sewer Line Indiana Bat Habitat Assessment

Aerial Photograph of Site with Plot and Photograph Locations

Sheet 5 of 6

TES File: IDA-2033B\2033B-Pipeline-Aerial5of6.mxd\8-27-2013

Aerial Photograph Obtained from NYS GIS Clearinghouse 2009

Figure Prepared by Terrestrial Environmental Specialists, Inc.

N

0 300

Feet

1 inch = 300 feet

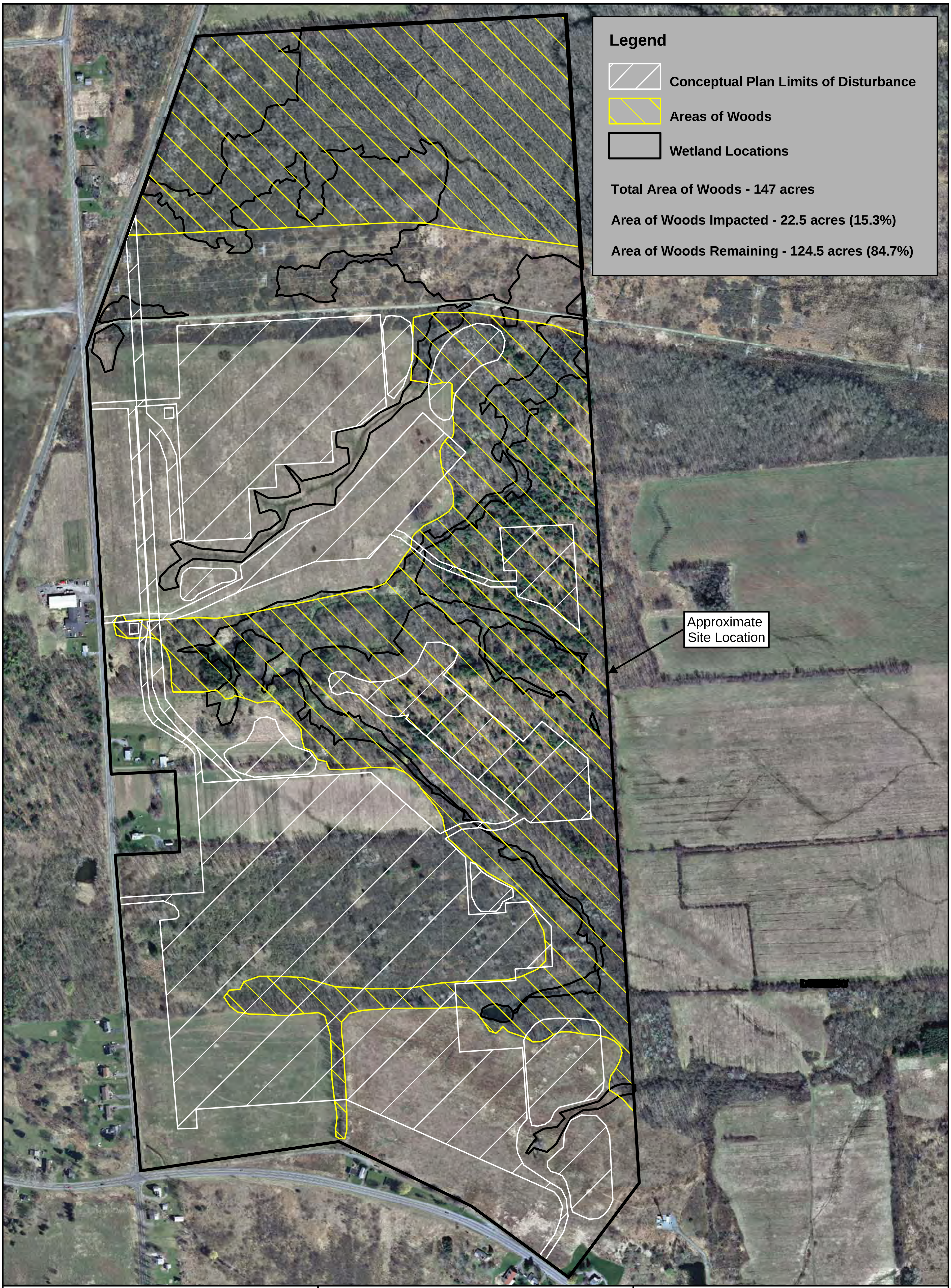
Figure 4-6.

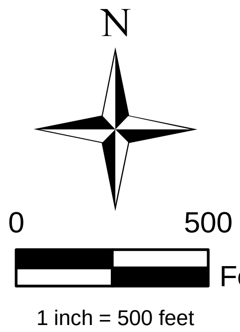
OCIDA Sanitary Sewer Line Indiana Bat Habitat Assessment

Aerial Photograph of Site with Plot and Photograph Locations

Sheet 6 of 6

TES File: IDA-2033B\2033B-Pipeline-Aerial6of6.mxd\8-27-2013





Aerial Photograph obtained from NYS GIS Clearinghouse 2012

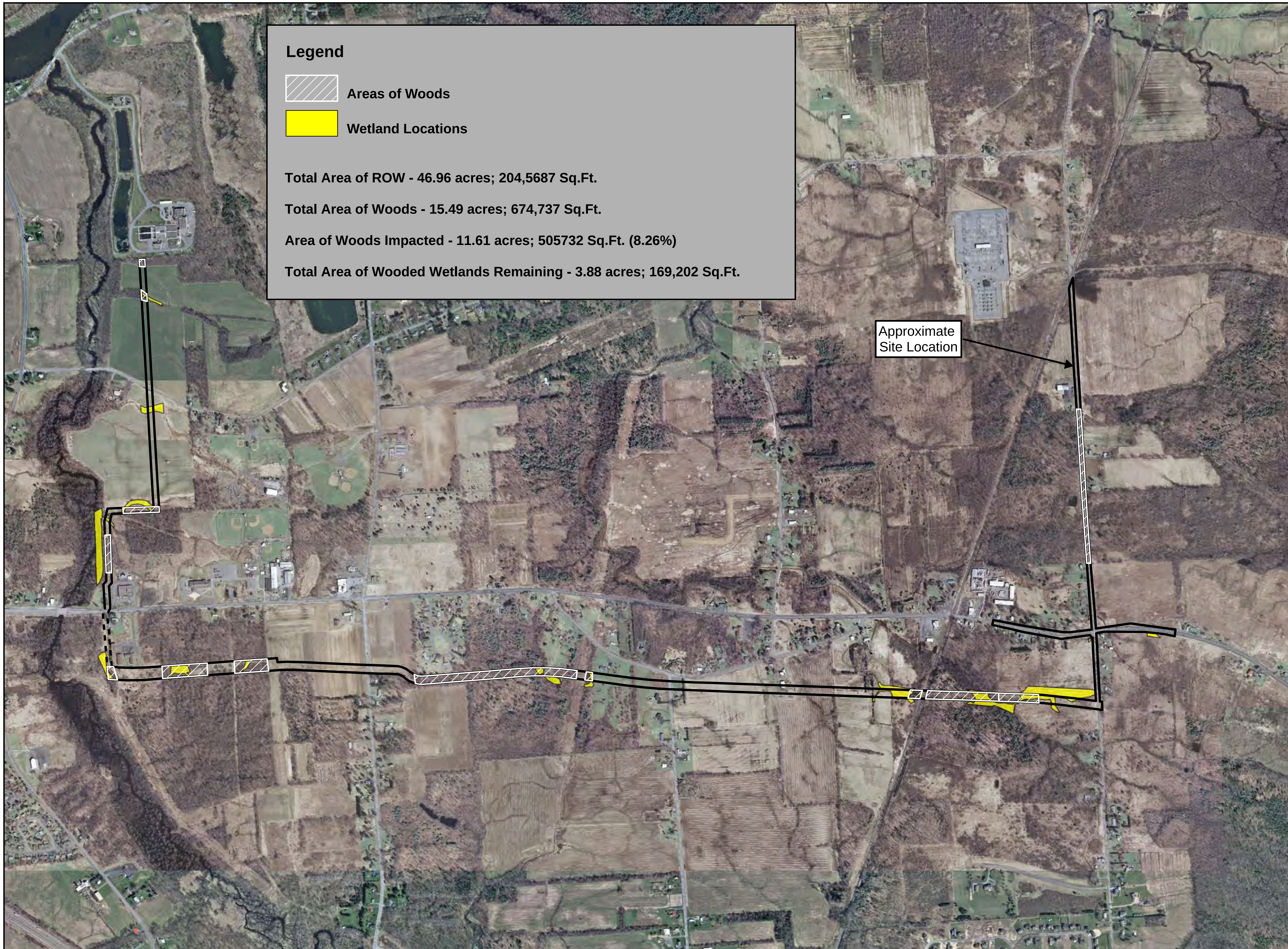
Figure Prepared by Terrestrial Environmental Specialists, Inc.

Figure 5.

OCIDA White Pine Commerce Park

Aerial Photograph of Site with Conceptual Plan Limits of Disturbance, Areas of Woods, and Wetland Locations

TES File: IDA-2033B\2033B-Aerial-Site-LOD-Forested.mxd\8-27-2013



Aerial Photograph Obtained from NYS GIS Clearinghouse 2012

Figure Prepared by Terrestrial Environmental Specialists, Inc.

Figure 6.

OCIDA Sanitary Sewer Line

Aerial Photograph of Site with Areas of Woods and Wetland Locations

TES File: IDA-2033B\2033B-Pipeline-Woods.mxd\8-27-2013


Photo 1.


Photo 2.


Photo 3.


Photo 4.


Photo 5.


Photo 6.


Photo 7.


Photo 8.

Photo 9.

Photo 10.

Photo 11.

Photo 12.

Photo 13.

Photo 14.

Photo 15.

Photo 16.

Photo 17.

Photo 18.

Photo 19.

Photo 20.

Photo 21.

Photo 22.

Photo 23.

Photo 24.

Photo 25.

Photo 26.

Photo 27.

Photo 28.


Photo 29.


Photo 30.


Photo 31.


Photo 32.


Photo 33.


Photo 34.

White Pine Commerce Park

Phase 1 Archeological Survey Report

Town of Clay, Onondaga County, New York

Prepared for:

Clough Harbour & Associates
441 South Salina Street
Syracuse, New York 13202
P. 315.471.3920
F. 315.471.3569
www.chacompanies.com

Onondaga County Industrial Development Agency
333 W. Washington Street, Suite 130
Syracuse, New York 13202
P. 315.435.3770
F. 315.435.3669

Prepared by:

EDR Environmental Services, LLC (EDR)
217 Montgomery St., Suite 1000
Syracuse, New York 13202
P. 315.471.0688
F. 315.471.1061
www.edrcompanies.com

September 2013

Phase 1 Archeological Survey

White Pine Commerce Park

(formerly Clay Business Park)

Town of Clay, Onondaga County, New York

Prepared for:

Clough Harbour & Associates
441 South Salina Street
Syracuse, New York 13202
P: 315.471.3920
F: 315.471.3569
http://www.chacompanies.com

and

Onondaga County Industrial Development Agency
333 W. Washington Street, Suite 130
Syracuse, New York 13202
P: 315.435.3770
F: 315.435.3669

Prepared by:

EDR Environmental Services, LLC
217 Montgomery Street, Suite 1000
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P: 315.471.0688
F: 315.471.1061
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September 2013

MANAGEMENT SUMMARY

NYSOPRHP Project Review Number:	12PR04065
Involved State and Federal Agencies:	Onondaga County Industrial Development Agency (SEQRA) NYSDEC SPDES General Permit
Phase of Survey:	Phase 1
Location Information:	Town of Clay, Onondaga County
Survey Area:	
Project Description:	Commercial/industrial park and associated infrastructure, including approximately 4 miles of new sewer line
Project Area:	approximately 340 acres
USGS 7.5-Minute Quadrangle Map:	*Brewerton, N.Y.*
Archeological Survey Overview:	
Number/interval of shovel tests:	1,414 in total (1,377 shovel tests at approximately 15 meter/50 foot interval; 37 shovel tests at approximately 7.5 meter/25 foot interval; 6 radial shovel tests at 7.5 meter/25 foot interval)
Number/size of excavation units:	None; Phase 1 only
Pedestrian surface survey:	775 feet (236 m) in agricultural field
Surface survey transect interval:	16.4 feet (5m) x 3 transects
Results of Archeological Survey:	
Pre-contact sites identified:	None
Historic sites identified:	2 (Caughdenoy Road MDS 1 & Caughdenoy Road MDS 2)
Report Authors:	Patrick J. Heaton, RPA; T. Arron Kotlensky, RPA; Grant Johnson; Eric Lockard; Francis McCormick
Date of Report:	September 2013

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1.0 INTRODUCTION

1.1 Purpose of the Investigation

On behalf of CHA and the Onondaga County Industrial Development Agency (OCIDA), EDR Environmental Services, LLC (EDR) conducted a Phase 1 archeological survey for the proposed White Pine Commerce Park (formerly Clay Business Park), located in the Town of Clay, in Onondaga County, New York. The purpose of the Phase 1 survey is to determine whether archeological sites are located in the areas that may be affected by the proposed Project. The information included in this Phase 1 archeological survey report is intended to assist OCIDA in their review of the proposed Project under the State Environmental Quality Review Act (SEQRA). The Phase 1 survey was conducted under the supervision of a Registered Professional Archeologist (RPA) in a manner consistent with the New York Archaeological Council's 1994 *Standards for Cultural Resources Investigations and the Curation of Archaeological Collections in New York* State (the *NYAC Standards*; NYAC, 1994). The Phase 1 report was prepared in accordance with the New York State Office of Parks, Recreation, and Historic Preservation's (NYSOPRHP's) *Phase 1 Archeological Report Format Requirements* (NYSOPRHP, 2005).

1.2 Project Location and Description

OCIDA is proposing to develop the White Pine Commerce Park (the Project), which will be a modern industrial facility in the Town of Clay, Onondaga County, New York (see Figure 1). The Project site is located northeast of the intersection of New York State (NYS) Route 31 and Caughdenoy Road and includes approximately 340 acres of undeveloped land that includes former farmland, vacant fields, shrublands, wetlands, and forested areas with elevations between approximately 380 and 420 feet above mean sea level (amsl; see Figures 2 and 3; Appendix A: Photographs 1-10). The Project site is located near major transportation routes and is located adjacent to numerous existing utilities. The National Grid Clay substation is located on the west side of Caughdenoy Road opposite the northern portion of the Project site. The northern portion of the Project site includes several areas of wetlands and small drainages that drain northward toward Youngs Creek, located north of the property. A New York Power Authority (NYPA) electric transmission line right-of-way crosses the northern portion of the Project site in an east-west direction perpendicular to Caughdenoy Road. The transmission lines originate at the National Grid Clay electrical substation just west of the site. An active CSX rail line right-of-way crosses Caughdenoy Road adjacent to the site, and forms part of the northwestern boundary of the site. Nearby utilities include public water, electric, fiber optic and broadband, telephone, and natural gas services.

Although specific tenants and uses have yet to be determined, and site plan has yet to be developed, the Project is anticipated to include a mix of commercial and industrial uses. These uses may include office, research, manufacturing, assembly, warehousing, and distribution facilities in a campus environment. Industrial facilities or related infrastructure could be located in any of the six "buildable areas" within the site (Figure 4). These areas include approximately 110 acres of land that will be developed as buildings, parking, roadways and support/ancillary facilities. Additional acreage will be required to provide for stormwater management and as setbacks and natural buffers around the periphery of the Park. In total, the Project will encompass approximately 182 acres, or about one-half of the Park's total acreage. The remaining areas will be set aside as natural areas to avoid and/or minimize impacts to environmentally sensitive features including State and federal wetlands and State-regulated wetland buffers.

In addition, the Project will require installation of a new approximately four-mile sewer line. The proposed sewer line would connect the Project site to existing wastewater treatment facilities at the Oak Orchard Wastewater Treatment Plant (WWTP), which is located approximately three miles west-northwest of the Project site adjacent to the Oneida River. The proposed route of the sewer line (as presently envisioned) is shown on Figures 2 and 3. The sewer line will run within the road shoulder of Caughdenoy Road from the CSX railroad crossing southward to an existing waterline right of way that intersects Caughdenoy Road approximately 950 feet south of NYS Route 31. The proposed sewer line will then run parallel to the existing water line from Caughdenoy Road to the Oak Orchard WWTP.

1.3 Summary of Previous Cultural Resources Review of the Project

Activities to date related to cultural resources concerns for the Project have included the following:

- EDR previously prepared a *Phase 1A Cultural Resources Survey* for the Project (EDR, 2012), which was submitted to NYSOPRHP for their review on September 14, 2012. Significant portions of the Phase 1A report are reproduced herein so that this report constitutes a complete stand-alone Phase 1 archeological survey report for the Project in accordance with NYSOPRHP's 2005 *Phase 1 Archeological Report Format Requirements*. The Phase 1A report concluded that in general the Project site had relatively low potential to contain archeological sites and recommended that a limited Phase 1B archeological survey (totaling no more than 500 shovel tests) would be appropriate for the Project site.
- In correspondence dated October 16, 2012, Philip Perazio (NYSOPRHP staff) responded that NYSOPRHP did not agree with EDR's recommended level of effort and instead indicated that a complete Phase 1B archeological survey of the entire project site would be necessary (Perazio, 2012; see Appendix B).
- In March 2013, EDR provided to NYSOPRHP additional information regarding the site, including a map entitled "Existing Site Conditions" prepared by CHA [this map is included in this report as Figure 4], which shows the extents of wetlands and limits of developable areas on the site (approximately 187 acres of the 340-acre site are developable)

- On March 19, 2013 EDR spoke with Philip Perazio to discuss NYSOPRHP's recommendations regarding the need for and scope of the Phase 1B survey. This discussion is memorialized in Meeting Minutes (EDR, 2013) and email correspondence (Perazio, 2013a) included in Appendix B of this report. NYSOPRHP recommended that an appropriate Phase 1B testing strategy for the Project site would be shovel testing (at 50-foot intervals, in most instances, in accordance with the *NYAC Standards*) in limited areas within the Project site.

The scope of the Phase 1 archeological survey described herein was developed in consultation with NYSOPRHP as described above and memorialized in correspondence included in Appendix B. The scope (or research design) for the Phase 1 survey is further described in Section 4.1 of this report.

2.0 BACKGROUND RESEARCH

2.1 Geology and Soils

The Project site is located on a relatively level area south of Youngs Creek within the Erie-Ontario Plain physiographic province. The plain generally consists of limestone, siltstone, and shale of the Silurian and Devonian Periods (SCS, 1977). Topography on the site is gently sloping with elevations generally ranging from 380 to 420 feet above mean sea level (amsl; see Figure 2). A small, linear, steeply sloped esker rises to an elevation 420 feet (amsl) is located in the eastern portion of the Project site. An esker is a long ridge of sand and gravel that is a typical feature in glaciated areas. The esker within the Project site is readily apparent on topographic mapping (see Figure 2) and is labeled on Figure 3.

EDR reviewed the *Soil Survey of Onondaga County, New York* (SCS, 1977) for data concerning soils within the Project site as well as electronic data for Onondaga County from the Natural Resources Conservation Service (NRCS, 2012). The Project site is primarily within the Collamer-Niagara General Soil Map Unit and the remainder of the site is within the Niagara-Collamer, Ontario-Hilton, Williamson-Niagara, Arkport-Colonie, and Niagara Canandaiqua General Soil Map Units. The majority of Project-related soil disturbance will occur within the Collamer-Niagara General Soil Map Unit, which is characterized as "deep, moderately well drained and somewhat poorly drained, medium- and high-lime soils that have a medium-textured to moderately fine-textured subsoil; on lake plains" (SCS, 1977). These soils formed in lacustrine deposits of silt, very fine sand and moderate amounts of clay (SCS, 1977). The dominant soil series within the Project site (Figure 5) include Niagara silt loam (NgA), Collamer silt loam (ChA/ChB), and Ontario loam (OgB). Cumulatively, these soils cover over 69% of the Project site. Table 1 summarizes typical characteristics for the dominant soils (i.e., those soils that cover more than 35 acres) located within the Project site.

Table 1. Dominant Soils within the Project Site

Map Unit Name & Acres within the Project site	Soil Horizon & Depth	Description	Slope Drainage & Landform
Niagara silt loam (NgA) 134 acres ~39% of the Project site	0-23cm (0-9in) 23-28cm (9-11in) 28-58cm (11-23in) 58-99cm (23-39in) 99-127cm (39-50in)	Very dark grayish-brown silt loam Pale-brown silt loam Brown very fine sandy loam Grayish-brown heavy silt loam Brown weakly stratified silt loam and very fine sandy loam With thin layers of loamy very fine sand	(NgA): 0-4% slopes Somewhat poorly drained; On moderately low lake plains from which runoff is slow or from which they receive runoff or seepage from adjacent higher lying soils.

Map Unit Name & Acres within the Project site	Soil Horizon & Depth	Description	Slope Drainage & Landform
Collamer silt loam (ChA, ChB) 106 acres ~31% of the Project site	0-25cm (0-10in) 25-40cm (10-16in) 40-61cm (16-24in) 61-81cm (24-32in) 81-107cm (32-42in) 107-127cm (42-50in)	Dark grayish brown silt loam Yellowish brown silt loam Dark brown silt loam Brown heavy silt loam Brown heavy silt loam Weakly stratified reddish-brown silt loam with thinner layers of brown	(ChA): 0-2% slopes (ChB): 2-6% slopes Moderately well drained; On undulating tops in lake plains.
Ontario loam(OgB) 38 acres ~11% of the Project site	0-18cm (0-7in) 18-36cm (7-14in) 36-48cm (14-19in) 48-71cm (19-28in) 71-81cm (28-32in) 81-152cm (32-60in)	Dark brown loam Brown very fine sandy loam Dark brown gravelly loam Dark brown heavy gravelly loam Brown gravelly loam Brown gravelly loam	(OgB): 2-8% slope Well drained; On upland till plains and drumlins.

2.2 Previously Identified Archeological Sites

In accordance with the New York State Office of Parks, Recreation and Historic Preservation (NYSOPRHP) *Phase 1 Archeological Report Format Requirements* (NYSOPRHP, 2005), this Phase 1 report includes a summary of previously identified archeological sites located within one mile of the Project. EDR retained Croshier Archeological Services to conduct a review of the consolidated archeological site files of the NYSOPRHP and New York State Museum (NYSM) to identify documented archeological sites. This investigation revealed that a total of 15 archeological sites are located within one mile of the Project (Figure 6).

Table 2. Archeological Sites Located in the Vicinity of the Project

Site Identifier	Site Name	Time Period	Description	Distance from Project
NYSM 7311	ACP Onondaga No#	Unknown Prehistoric	Camp (documented in Parker, 1922)	0.0 mile (proposed sewer line intersects site)
067.03.0004	Site	Unknown Prehistoric	Area is disturbed	0.1 mile
067.03.0112	Flagler Site	Historic	Map-documented dwelling with fieldstone-lined foundation with burned sills and joists	0.1 mile
067.03.0154	Treatment Plant Pre-contact Site	Unknown Prehistoric	Pre-contact Native American Site	0.2 mile
NYSM 4232	ACP Onondaga 80A, 80B	Unknown Prehistoric	Village/Hamlet and Burial/Cemetery Site(s)	0.2 mile
067.03.0111	Dr. Snyder Site	Historic	Map-documented wood frame dwelling with mortared fieldstone foundation	0.3 mile
067.03.0110	Vandenberg Site	Historic	Map-documented dwelling with stone foundation and stone lined well	0.3 mile
NYSM 6633	-	Unknown Prehistoric	Old site file(s) from 1913 map; locations along Oneida Lake and Oneida River	0.3 mile
067.03.0003	Site	Unknown Prehistoric	Potential Cemetery (may be the same site as NYSM 4232)	0.4 mile
067.03.0001	Oak Orchard and Caughdenoy Locks	Historic	Limestone locks part of a waterway designed to connect Erie Canal in Rome to Erie Canal in Oswego	0.6 mile
075.18.0004	Frame Saw Mill	Historic	Map-documented saw mill	0.6 mile
075.18.0033	Schroeppel Mansion Prehistoric Site	Unknown Prehistoric	Flakes, cores, and bifaces present along with other artifacts	0.7 mile
NYSM 7010	ACP Onondaga 80C	Unknown Prehistoric	Camps	0.7 mile

Site Identifier	Site Name	Time Period	Description	Distance from Project
NYSM 6632	-	Unknown Prehistoric	Old site file(s) from 1913 map; locations along Oneida Lake and Oneida River	0.7 mile
067.03.0169	Sand Hill Burial	Woodland or Contact Period	Remains of an Indian male were found in sand bed; 1 piece of pottery also recovered (not described)	0.8 mile
067.03.0068	NMPC – CT #1	Unknown Prehistoric	5 dark grey chert flakes found	1 mile

As indicated in Table 2 and Figure 6, the proposed sewer line route intersects NYSM Site 7311, which is located north of NYS Route 31 and east of Morgan Road. The site is described as a "campsite" reported in the *Archaeological History of New York State* (Parker 1922), which implies a general area from which Native American artifacts have been recovered or reported. This site description usually indicates the presence of small camp sites and/or lithic scatters. The other sites in the vicinity of the Project include sites identified by archeologists active in the early-twentieth century or during more recent archeology surveys conducted in association with the planning and construction of housing developments, road improvements, and utility lines and their associated facilities. Information regarding these sites varied in detail within the NYSOPRHP site files. The majority of these sites are reported Native American sites. In addition, there are five historic-period sites located within one mile of the Project. These are for the most part dwellings and industrial sites depicted on historic maps.

2.3 Previously Identified Historic-Architectural Resources

EDR reviewed the State Preservation Historical Information Network Exchange (SPHINX) database maintained by NYSOPRHP to identify significant historic buildings and/or districts located within one mile of the Project (Table 3; Figure 6). The only property listed on, or determined eligible for listing on the National Register of Historic Places (NRHP) within one mile of the Project is the Schroeppel House (Site #90NR02140), which is located approximately 0.7 mile from the western terminus of the proposed sewer line.

Table 3. Historic Resources Located in the Vicinity of the Project

Site Identifier	Property Name, Address, and/or Description	Determination	Distance from Project (Miles)
90NR02140	Schroeppel House	NRHP-Listed	0.7

The Schroeppel House is a wood frame residential dwelling constructed in the form of a prostyle tetrastyle temple. Construction of the house began in 1818. The house is located beside the Oneida River and is an illustration of the spread of fashion and architectural sophistication into north central New York along the river and canal systems which were the channels of economic development in the early decades of the nineteenth century (Harwood, 1982).

2.4 Previous Cultural Resource Surveys

Nine cultural resource surveys have been previously undertaken within the one-mile radius study area. The locations of previously surveyed areas are depicted in Figure 6 and brief summaries are provided below:

- Cultural resource surveys were undertaken for the Oak Orchard Service Area (McDowell-Loudan, 1976a, 1976b, 1976c). These surveys are located to the west of the Project site. The May 1976 Phase I investigation located two archeological sites within the surveyed area containing flints and scattered debris. Both sites were thoroughly disturbed and noted to be very swampy, but deemed to have potential for culturally significant materials. The June 1976 survey was a Phase II investigation of the south lagoon area where artifacts had been found in the previous survey. Though nineteen artifacts were recovered, the site was determined to be severely disturbed and deemed not culturally significant. The July 1976 report summarized the findings of the Phase I and II surveys, noting that the artifacts recovered were likely moved by the scraping of topsoil from their original location, and therefore the sites did not have archeological integrity. No structures were found in any survey.
- A cultural resources survey was conducted for the NYSDOT PIN 3750.70 Morgan Road Project (New York State Museum, 1985). This survey area is located to the northwest of the Project site. No archeological sites were located, but 9 historic structures were found within the surveyed area. Of these structures, one (the Schroeppel House) is on the National Register of Historic Places and is therefore architecturally significant. No other structures were determined architecturally significant. The limits of this cultural resources survey extended beyond the limits of the one-mile-radius study area.
- Cultural resource investigations were undertaken for the Niagara Mohawk Power Corporation Clay-Teall #11 Euclid 115 kV Tap (Collamer & Associates, Inc., 1992). The surveys are located to the southwest of the Project site. The limits of this cultural resources survey extended beyond the limits of the one-mile-radius study area. A Phase IA survey indicated moderate to high sensitivity for prehistoric sites and one previously identified archeological site. The Phase IB survey conducted in July 1992 discovered three artifacts, believed to be scattered stray deposits that were not deemed culturally significant. A prehistoric site was noted outside of the survey area. No historic architectural structures are noted.
- Cultural resource surveys were undertaken for the Route 31 Realignment (New York State Museum, 1996, 1998). These surveys are located to the west of the Project site. The 1996 survey found no prehistoric cultural materials. Thirty-one map-documented structures were identified. Three historic sites were identified, each with partially exposed structural ruins and related cultural materials. All three historic sites were considered subject to potential impact from proposed construction. The 1998 survey was an addendum to the previous survey, and no additional architectural survey was conducted. No prehistoric

sites were discovered, but two historic sites were identified. One was associated with a site discovered in the previous survey. No further testing was recommended.

- Cultural resource surveys were conducted at the Vandenberg Site (New York State Museum, 2001, 2008). These surveys are located to the west of the Project site, and within the Route 31 Realignment survey area. The 2001 survey was a Phase II site examination that discovered 5,766 artifacts. Cultural material included ceramic tableware, glass, pipes, dolls and tools. The site was determined to be eligible for inclusion in the National Register of Historic Places under criterion D. The 2008 survey was a Phase III data recovery that included the excavation and analysis of 1,749 artifacts associated with the 140-year occupation of the house.
- A Phase I cultural resources survey was conducted for the Fairway East Extension Nos. 2 & 3 and Streamwood Townhouses Extension No. 1 (Columbia Heritage, Ltd., 2002). This survey is located to the southwest of the Project site. Aside from scattered surface debris, no archeological sites were found. Two structures were located within the survey area. Neither was determined to be architecturally significant. The limits of this cultural resources survey extended beyond the limits of the one-mile-radius study area.
- A cultural resources survey was conducted for the PIN 2002.05 Ashley Landing Subdivision (Regional Heritage Preservation Program, 2003). This surveyed area is located northwest of the Project site, and the limits of this cultural resources survey extended beyond the limits of the one-mile-radius study area. No archeological sites were discovered. No architectural survey was conducted.
- Cultural resource surveys were conducted for the Horseshoe Island Sewer Project (Hartgen Archeological Associates, Inc., 2002, 2003). These surveys are located to the northwest of the Project site. Phase IA and Phase IB cultural resource surveys were conducted in October 2002. No archeological sites or architecturally significant structures were noted. A Phase IB addendum survey was conducted in April 2003. No archeological sites were located. Two artifacts were found, and deemed random finds and not culturally significant.
- Phase IA and IB cultural resource surveys were conducted for the Metropolitan Water Board Terminal Reservoir Compliance Project (Fisher Associates, 2011). The survey area is located to the west of the Project site. Two prehistoric sites believed to be camps were discovered, and no historic structures were identified. Material uncovered during the Phase IB was scattered and not considered culturally significant.

2.5 History of the Project Site

Archives and repositories consulted during EDR's research for the Project included the collections of the Onondaga Historical Association in Syracuse, the Local History collection of the Central Branch of the Onondaga County Public Library, Ancestry.com and other on-line history resources, and EDR's in-house collection of reference materials. Sources reviewed for the Project included the *History of Onondaga County, New York* (Clayton, 1878), *Onondaga's*

Centennial (Bruce, 1896), and *Past and Present in Syracuse and Onondaga County, New York* (Beauchamp, 1908). Historic maps reviewed as part of the Phase 1 survey included the 1854 Fagan *Map of Onondaga County* (Figure 7), the 1860 Sweet *Map of Onondaga County* (Figure 8), the 1874 Sweet *Atlas of Onondaga County* (Figure 9), the 1889 Sweet *Atlas of Onondaga County* (Figure 10), the 1898 USGS *Syracuse, NY* topographic survey (Figure 11), and the 1943 USGS *Brewerton, NY* topographic survey (Figure 12). In addition, EDR conducted an interview with the President of the Clay Historical Association (Young, 2013) to inquire about two structures that are depicted on historic maps within the Project site (see below). Based on review of historic maps, the Project site is primarily located in Lots 27 and 39 of the original military township of Cicero. The proposed sewer line follows the route of Caughdenoy Road south from the Project site and then runs from east to west south of Route 31, parallel to the road, and turns north parallel to and east of Mud Creek (see Figure 3). Both Caughdenoy Road and NYS Route 31 are shown on all maps reviewed.

At the time of European contact and colonization in the eighteenth century, the Project site was located within the territory of the Onondaga Nation of the Iroquois Confederacy. During the Revolutionary War, the Onondaga were initially neutral, but ultimately fought with the British against the American colonists. Following the war, many relocated to the Six Nations Reserve in Canada and in 1788 the Onondaga ceded all their New York lands to the state except for a reservation in what would become Onondaga County (Schein, 1993). Onondaga County was formed in 1794 from Herkimer and Tioga Counties, and named after the Onondaga Indians (Rivette, 2005). The Project site is located in the present day Town of Clay, which was a meeting place and hunting ground for the Onondaga Iroquois. The present day Bear Road is allegedly named for the abundance of bears and game that were hunted by the Onondagas along this path, and Three Rivers Point is reported to have been the meeting place of various councils of the Iroquois Confederacy, and French and English explorers (Clay Historical Association, 1978). A series of Indian campsites has been documented on both shores of the Oneida River, along with eel weirs and traps of Onondaga and Oneida origin (Parker, 1922: 666-668). A site at Oak Orchard reefs is reported to be the location of a burial ground from an eighteenth century Indian massacre that has been extensively looted by artifact collectors (Bruce, 1896: 827; Clay Historical Association, 1978: 25).

The Town of Clay was originally part of the military township of Cicero. The New Military Tract was a 1.5 million-acre tract set aside by the state in 1782 for soldiers of the Revolutionary War (Rivette, 2005; Schein, 1993; Schein, 2005). The land was divided into 28 townships, each containing 100 lots of 600 acres in a uniform grid pattern. Although the land was set aside for veterans, many of them either neglected to claim their land or sold their land to speculators and the area was settled primarily by migrants from Connecticut, Massachusetts, Pennsylvania and eastern New York (Schein, 1993; Brownell, 2005). The military township of Cicero was originally part of the Town of Lysander, but became its own township in 1807. The Town of Clay was formed from Cicero in 1827, and comprised fifty lots of the military township (Bruce, 1896). While two or three families are reported to have settled in the Town of Clay prior to 1791, Patrick McGee is historically referred to as the first white settler (Beauchamp, 1908). McGee first passed through the area as a British prisoner of war in 1780, reportedly impressed by the natural beauty present at Three Rivers Point. He returned to the area in 1791, and permanently located at Three Rivers Point in 1793, where he built the first log cabin in town. McGee also is said to have built the first frame house in the Town of Clay in 1808. Additional early settlers of note include Adam Coon in 1798 and Simeon Baker in 1799. No further noteworthy settlement occurred until 1807, when Joshua Kinne, Elijah Pinckney and John Lynn arrived in the area (Bruce, 1896).

The area population began to grow more significantly beginning in 1810 with the arrival of many new settlers, including the Young family, who came from Schoharie County near Albany, and built homes around the junction of Caughdenoy and Verplank Roads. Comprised initially of five brothers and three sisters, their Germanic language and customs led to the area surrounding their homes to be called "Dutch Settlement." The settlement was later referred to as Young, and was home to the first post office in the Town of Clay. The Youngs organized a Lutheran congregation (the oldest Lutheran church in the county) in 1824, incorporating and building a church in 1833. Originally called Dutch Settlement Church, this location served them until 1915, when a new church was built to the south, in the village of Clay, and named Immanuel Lutheran Church (Clay Historical Association, 1978). This church still stands to the west of the Project site on Route 31. The area around the Project site had originally been named Cigarville, after several cigar manufactories located around the intersection of Caughdenoy Road and Route 31. While the first dominant industry in Clay was barrel making for the Syracuse salt trade and Oswego flour market, the abundance of tobacco farming likely contributed to the growth of cigar manufacturing near the Project site (Bruce, 1896; Rivette, 2005). By 1869, over 275,000 pounds of tobacco a year were harvested in the Town of Clay (Clay Historical Association, 1878).

The locations of map-documented structures (MDS) within the Project site are shown on Figures 3 (Sheet 2), 7-12, and 13. Information about these sites provided by historic map sources is summarized in Table 4.

Table 4. Summary of Map-Documented Structures within the Project Site.

MDS Site #	1854 Fagan Map (Figure 7)	1860 Sweet Map (Figure 8)	1874 Sweet Atlas (Figure 9)	1889 Sweet Atlas (Figure 10)	1898 USGS Survey (Figure 11)	1943 USGS Survey (Figure 12)
1	H. Summer	H. Summers	I. Van Vleck	I. Van Vleck	structure (not identified)	structure (not identified)
2	C. Mogg	W.H. Ostrander Cigar Mfg.	L. Freeman	L. Freeman	structure (not identified)	structure (not identified)

The 1854 Fagan *Map of Onondaga County* (see Figure 7) shows the location of roads and two farms within the Project site, which are attributed to H. Summer (MDS Site 1) and C. Mogg (MDS Site 2). The 1850 census lists a

Henry Summers (there is no listing for an “H.Summer” in the Town of Clay for that, or any other census reviewed) as a farmer, and C. Mogg as a lumberman (U.S. Census Bureau, 1850). Cigar manufactories are first noted on the 1860 Sweet *Map of Onondaga County* (see Figure 8), one within the Project area attributed to W.H. Ostrander (located at MDS Site 2, in the structure formerly attributed to C. Mogg) and the J.W. Caughtry Cigar Manufactory located just outside the Project boundary to the west. The occupation listed for Ostrander in the 1860 census is farmer, though a cigar manufacturer named William L. Coughtry is noted as living in that residence. A farm located along Caughdenoy Road and just outside the Project boundary is attributed to P.J. Young, and the 1860 census lists a Peter Young as a farmer (US Census Bureau, 1860). On the 1874 Sweet *Map of Onondaga County*, MDS Site 1 is identified as the I. Van Vleck residence, and MDS Site 2 is attributed to I. Freeman and no cigar manufactory noted (see Figure 9). The 1870 census lists Isaac Van Vleck and Irving Freeman as farmers in the Town of Clay (U.S. Census, 1870). The 1874 Sweet map is the first appearance of the name Cigarville at the present location of the hamlet of Clay, with a post office noted at the station of the Syracuse Northern railroad.

The Cigarville railroad station was built around 1871, following the opening of the Syracuse Northern railroad from Syracuse to Sandy Creek. The railroad right of way forms the northwest boundary of the Project site. Cigarville was one of three stations in the Town of Clay, with another located in Young. A post office was also located in Young, but closed as the settlement in Cigarville continued to grow. The post office at Cigarville opened in December of 1871, and its first postmaster was Jacob W. Coughtry of the J.W. Coughtry & Sons Cigar Manufacturers. Coughtry was appointed the postmaster again in 1889, following a four-year term in the position by William Cullings, who was another cigar manufacturer at Cigarville. Cullings’ son Arthur was the fourth postmaster in 1894 and, previous to that, had formed a group of musicians called the Cigarville Band, who performed at churches and picnics in the area (Clay Historical Association, 1878).

The Syracuse Northern railroad was taken over by the Rome, Watertown & Ogdensburg Railroad in 1875, and the New York Central railroad obtained a perpetual lease of the line in 1891. The 1889 Sweet *Map of Onondaga County* still notes the railroad as the Syracuse Northern and also shows that the Coughtry cigar manufactory has relocated to a site along the railroad (Figure 10). Three properties between the railroad and Caughdenoy Road are attributed to John or Jacob W. Coughtry, one of which was known as the “bee hive” and provided a shelter to tobacco workers (Clay Historical Association, 1878). Within the Project site, MDS Sites 1 and 2 are still identified as the Van Vleck and Freeman properties, while the Young property (outside the Project site) is now owned by P. Schell, and no new structures noted. Peter Schell is listed in the 1880 census as a farmer, and the occupations of Van Vleck and Freeman are the same (U.S. Census Bureau, 1880). The 1898 USGS topographical map of Syracuse, New York does not show structures located at both MDS Sites 1 and 2, and does not depict any new structures located in the Project site. This is the last map reviewed to identify the area as Cigarville (Figure 11).

That year also marked the decline of Cigarville, as the estimated 75 to 100 Coughtry cigar workers went on strike, which lasted long enough to force the factory to close. Within five years, the building had burned. Attempts by some of the previous Coughtry workers to form a new cigar manufacturing business failed, leading to the end of the industry in Cigarville. The village was renamed Clay in 1903, after a petition by the J. Weller Kraut company for a name change to relieve confusion regarding mail delivery (Clay Historical Association, 1878). By the 1930s, sauerkraut production had come to dominate the area economy, with at least one factory located on the former site of the Coughtry cigar manufactory (Bogardus, 1933). The 1943 USGS topographic map of Brewerton, New York (Figure12) shows MDS Sites 1 and 2 and a cluster of structures around the intersection of the railroad and Route 31. In 1943 the Project site remained agricultural and undeveloped, with no new structures built.

The character of the land in the Project site through the rest of the twentieth century remained relatively unchanged, with no new construction. Review of historical aerial photography of the Project site conducted as part of two previously prepared Environmental Site Assessments (ESAs; CS Consulting Engineers, Inc., 1991; C&S Engineers, Inc., 2004) indicates that agricultural use of the Project site continued through the 1970s, and that former fields began to take on a fallow appearance with significant vegetation growth during the 1980s and 1990s. In June 2004, a site walkover conducted as part of an ESA noted that a vacant, 40x35-foot, two-story house and 25-x40-foot three-car garage were located at MDS Site 2, with a septic tank and leach field located east of the house (C&S Engineers, Inc., 2004). The house and garage stood at MDS Site 2 until approximately 4-5 years ago, when the buildings were demolished and removed (Provo, 2012).

2.6 Existing Conditions

A reconnaissance-level field visit to the Project site and proposed sewer line route was conducted by a Registered Professional Archeologist on August 15, 2012. The site visit included observations and photography from public rights of way. A complete pedestrian survey of the Project site and proposed sewer line was conducted as part of the Phase 1 survey during June-July 2013. Existing conditions within the Project site are shown on Figure 3 and in photographs included in Appendix A (see Photographs 1-74). Observations of existing conditions within the Project site include the following:

- No named streams occur within the Project site, however the proposed sewer line crosses Shaver Creek (see Figure 3). Unnamed tributaries to Youngs Creek are located in the northern part of the Project site. Both Youngs Creek and Shaver Creek are tributaries to the Oneida River, which is the nearest major water feature and is located 0.5 mile northwest of the western end of the proposed sewer line. The northern terminus of proposed road improvements located at Mud Mill Road is adjacent to Youngs Creek.

- The Project site is relatively flat to gently sloping terrain and bordered by NYS Route 31 to the south and Caughdenoy Road to the west. The majority of the site has slopes that do not exceed 8%; steeper slopes are primarily confined to the linear esker feature in the eastern portion of the site and in isolated areas along the sewer line (see Figure 2).
- The Project site is characterized by large undeveloped areas of former farmland, as well as fallow fields, shrublands, wetlands and forested areas, all of which are in various stages of natural succession (Appendix A: Photographs 1-5). The CSX Railroad forms a portion of the northwestern boundary of the site (Photograph 6). A NYPA electric transmission line right-of-way crosses the northern portion of the Project site (Photographs 7-8).
- The former locations of two structures depicted on historic maps (or MDS) are located within the Project site on the east side of Caughdenoy Road (see MDS Sites 1 and 2 on Figure 3: Sheet 2). No standing structures are present at these sites and both sites are overgrown with vegetation (Photographs 9-10).

The only standing structure within the Project site is a mid-to-late-twentieth-century residence located at 8700 Caughdenoy Road (see Figure 3: Sheet 2; Appendix A: Photograph 11). The locations of structures immediately adjacent to the Project site are shown on Figure 3A. Photographs of these buildings are included in Appendix A (Photographs 12-23). Summary descriptions of these buildings are provided in Table 5.

Table 5. Buildings Within and Adjacent to the Project Site.

Address	Description	Photograph (see Appendix A)
8700 Caughdenoy Road (within the Project site)	Mid-to-late 20th century two-story split-level ranch house with vinyl siding and windows.	11
8676 Caughdenoy Road	Front-gabled farm house ca. 1860 with vinyl siding and windows, detached modern garage.	12
8271 Caughdenoy Road (Jerome Fire Equipment Co., Inc.)	Late 20th-century concrete block fire engine service center.	13
8725 Caughdenoy Road	Mid-20th-century 1.5-story wood shingle-clad house with attached garage.	14
8617 Caughdenoy Road.	Late 20th-century 1.5-story vinyl-clad house with attached garage.	15
8613 Caughdenoy Road	Late 20th-century 1.5-story vinyl-clad house with attached garage.	15
8611 Caughdenoy Road.	Late 20th-century split-level ranch house.	16
8607 Caughdenoy Road.	Late 20th-century one-story ranch house with attached garage, clad in vinyl siding.	17
8603 Caughdenoy Road.	Late 20th-century two-story ranch house with attached garage, clad in vinyl siding.	18
8587 Caughdenoy Road	Late 20th-century one-story ranch house with attached garage, clad in wood shingles.	18
5064 NYS Route 31.	Late 19th-century two-story house with mid-19th century Greek Revival rear wing, with aluminum siding and replacement windows.	19

Address	Description	Photograph (see Appendix A)
5117 NYS Route 31.	Mid-to-late 20th century one-story ranch house with aluminum siding.	20
5117 NYS Route 31, associated garage.	Late 20th century concrete block garage.	21
5170 NYS Route 31.	Mid-19th century Greek Revival farm house, with vinyl siding, and late 20th century attached garage.	22
5170 NYS Route 31, associated barn.	Large, late 19th century barn with wood clapboard siding, some original windows, and some replacement windows and door.	23

None of the buildings located immediately adjacent to the Project site appear to satisfy NRHP-eligibility criteria.

Both sides of Caughdenoy Road (adjacent to the Project site) are flanked by drainage ditches and utility markers indicate the presence of water, gas, and telecommunication lines (Photographs 6 and 24).

The route of the proposed sewer line runs south from the CSX railroad crossing along Caughdenoy Road, along the western perimeter of the Project site. Both sides of Caughdenoy Road are flanked by drainage ditches. Hydrants and gas line markers indicate the presence of buried utilities within the road shoulders (Photographs 25-31). South of NYS Route 31, the proposed sewer line follows the route of an existing water line westward from Caughdenoy Road to just east of Mud Creek. This portion of the proposed sewer line traverses areas that include active agricultural fields, as well as successional/shrubland areas and maintained lawns (Photographs 32-37). Approximately 300 feet east of Mud Creek, the proposed sewer line route turns north and runs parallel to Mud Creek to the Oak Orchard WWTP. This portion of the proposed sewer line traverses areas that include active agricultural fields, successional/shrubland areas, and forested areas (Photographs 38-40; 66-74).

3.0 ARCHEOLOGICAL SENSITIVITY ASSESSMENT

3.1 Prehistoric Native-American Archeological Sensitivity Assessment

As described in Section 2.2 of this report and shown on Figure 6, all of the previously identified Native American archeological sites located in the vicinity of the Project site are located along Mud Creek and/or the Oneida River. Archeological site inventories prepared in the early-twentieth century (e.g., Beauchamp, 1908; Parker, 1922) describe Native American sites located along the Oneida River, including a larger settlement (possibly a village) and burials in the vicinity of Oak Orchard. Historical sources and recent archeological survey reports state that Native American sites in Clay are typically located on sandy soils close to major waterways (Bruce, 1896:25-27; Fisher Associates, Inc., 2011; Kisselburgh, 1978; McDowell-Loudan, 1976a; Thompson, 1978). An unidentified historical source suggests that Caughdenoy Road follows the route of an Indian footpath (Horner, 1978:61).

The Project site includes approximately 11.41 acres of delineated wetlands and as described in Section 2.1 of this report, significant portions of the Project site are characterized by somewhat poorly drained soils. These areas should be considered as having a low potential for the presence of Native American archeological sites. However, an esker (a linear glacial landform) is located within the eastern portion of the Project site. As described previously, well-drained, elevated, sandy soils generally represent preferred locations for Native American archeological sites and use as burial sites within the Town of Clay (and central New York more generally). The area in the immediate vicinity of the esker (i.e., within approximately 200 feet) should be considered as having a higher relative potential for Native American archeological sites to be present. In addition, per consultation with NYSOPRHP staff, the areas along the margins of the wetlands within the Project site should be considered archeologically sensitive because they represent marginal/boundary areas between ecotones, which are typically high-resource areas favored by hunter-gatherers (i.e., prehistoric Native American populations; Perazio, 2012; EDR, 2013a; see Appendix B).

A portion of the route of the proposed sewer line runs east of, and generally parallel to, Mud Creek, and passes through the area of one previously reported Native American archeological site (NYSM Site 7311). The western terminus of the proposed sewer line route is also located in proximity to the known archeological sites in the vicinity of Oak Orchard. The portion of the proposed sewer line that runs parallel to Mud Creek should be considered as having a higher relative potential for Native American archeological sites to be present.

3.2 Historic Period Archeological Sensitivity Assessment

As described in Section 2.5 of this report, there are two farmstead and/or residential sites depicted within the Project site (both on the east side of Caughdenoy Road) on historic maps of the area from the mid-nineteenth through mid-twentieth centuries (Figures 7-12). Potential archeological resources associated with these sites could include foundations, structural remains, artifact scatters, and other features, such as wells, privies, and cisterns. Areas located in the immediate vicinity (within approximately 200 feet) of the two MDS sites (see Figure 3) should be considered as having a high potential for the presence of historic-period archeological resources. The remaining portions of the Project site exhibit minimal (if any) likelihood for significant historic period archeological sites to be present.

3.3 Prior Ground Disturbance

Previous ground disturbance within the Project site is for the most part limited to previous agricultural activities. These types of activities, particularly plowing, are not considered significant in terms of their potential to affect the integrity of archeological resources (NYAC, 1994; NYSOPRHP, 2005). The NYPA transmission line right-of-way within the northern portion of the Project site is previously disturbed (associated with construction of the NYPA line during the 1960s). Additionally, some areas immediately adjacent to existing roads along the periphery of the Project site include drainage ditches, culverts, and buried utilities. With the exception of these areas, the Project site in general does not appear to have been subjected to significant previous disturbance.

The portion of the proposed sewer line route that is located parallel to Caughdenoy Road include previously disturbed areas, as evidenced by drainage ditches, hydrants, and buried utility markers. The portion of the proposed sewer line between Caughdenoy Road and the Oak Orchard WWTP is located within the right-of-way for an existing waterline; however, the proposed sewer line is intended to be installed within a new trench (i.e., it will not be installed within areas previously disturbed by installation of the water line).

To verify the locations of existing buried utilities and identify areas of previous disturbance, EDR placed a call with Dig Safely New York (DSNY) to request utility mark-outs prior to conducting the Phase 1 archeological survey fieldwork. The DSNY request was made on June 17, 2013 and utility mark outs were conducted by responders between June 17 and June 20, 2013. Utility mark-out responders included:

- Metropolitan Water Board (Water)
- National Grid / Central / Electric (Electric)
- National Grid / Central / Gas (Gas)
- Onondaga County Water Authority (Water)
- Verizon / Onondaga (Fiber-optic, Telephone)
- Buckeye Pipeline Company (Petroleum products pipeline)
- Elantic Telecom, Inc (Fiber-optic)
- Onondaga County / Department Of Water - Environment Protection (Drainage, Sewer)

- Time Warner Cable | Syracuse (Fiber-optic, Cable television)
- Town Of Clay (Highway, Culverts, Sewer, Water)
- NYS DoT Syracuse - Region #3 (Traffic Signals)
- Fiber Technologies, LLC (Fiber-optic)
- Metropolitan Water Board (Water)
- National Grid / Central / Electric (Electric)
- National Grid / Central / Gas (Gas)

As a component of the Phase 1 archeological survey fieldwork, the locations of all utility markers (such as pin flags or spray paint markings) were recorded by EDR personnel using GPS equipment with reported sub-meter accuracy and marked on field notes for later reporting (see Figure 13). In addition to utility mark-outs, existing ditches, paved surfaces, storm drains, fire hydrants, and other indications of previous disturbance were recorded with GPS and/or field notes. Representative depictions of previously disturbed areas and utility markings are shown in Appendix A: Photographs 68, 69, 71, 73, and 74. Areas previously disturbed by existing utilities are not considered archeologically sensitive.

4.0 PHASE 1 ARCHEOLOGICAL SURVEY

4.1 Phase 1 Archeological Survey Scope and Fieldwork Methods

As described in Section 1.3 of this report, the scope (or research design) for the Phase 1 archeological survey described herein was developed in consultation with NYSOPRHP as memorialized in correspondence included in Appendix B. As a result on discussion between EDR and NYSOPRHP regarding the appropriate scope for the Phase 1 survey (see Section 1.3 and Appendix B), NYSOPRHP recommended that an appropriate Phase 1 testing strategy for the Project site would be shovel testing (at 50-foot intervals, in most instances, in accordance with the *NYAC Standards*) in the following areas:

a. The vicinity of the esker (see Section 2.1 and Figure 3).
b. The areas around the two MDS depicted on historic maps (see Section 2.5 and 3.2). NYSOPRHP's 2005 *Phase 1 Archeological Report Format Requirements* indicate that shovel tests should be dug at 7.5 meter (25 foot) intervals in yard areas of standing or map-documented historic structures.
c. Within all areas identified as "Buildable Areas" on CHA's "Existing Site Conditions" map (i.e., Figure 4), a 100-foot-wide strip along the edges of wetlands and wetland buffers. As described in Section 3.1, the areas along the margins of the wetlands within the Project site are considered archeologically sensitive because they represent marginal/boundary areas between ecotones, which are typically high-resource areas favored by hunter-gatherers (i.e., prehistoric Native American populations; Perazio, 2012; EDR, 2013; see Appendix B). In these areas shovel tests should be excavated in three parallel transects at 50-foot intervals (along the edge of the wetland/wetland buffer boundary, 50 feet perpendicular to the wetland/wetland buffer boundary, and 100 feet from the wetland/wetland buffer boundary).
d. Other than these areas, NYSOPRHP recommended that Phase 1 testing would not be necessary in the remaining portions of the 355-acre project site.

EDR and NYSOPRHP agreed to eliminate the vicinity of 'Wetland D" (see Figure 4) from the areas requiring archeological testing. Wetland D is a very low quality wetland that consists of a low relief swale with invasive vegetation that runs through a successional field. It was observed that this wetland was until very recently actively farmed and that if farming was ongoing now there would be no wetland there. Wetland D is unlike the other wetlands on-site, which in general include well defined water courses and more distinct boundaries between wetland and upland areas (TES, 2012). On May 6, 2013, Philip Perazio sent an email to EDR stating NYSOPRHP's concurrence that the vicinity of Wetland D did not need to be included in the Phase 1 archeological survey (Perazio, 2013a; see Appendix B).

EDR employed shovel test pits as the principal archeological survey method for the Phase 1 archeological survey of the Project site. In addition, pedestrian surface survey was conducted along a short portion of the proposed sewer line located within a plowed agricultural field. Shovel tests were approximately 12-20 inches (30-50 cm) in diameter and excavated at least 4 inches (10 cm) into the subsoil stratum or to the limits of practical hand excavation. EDR recorded the locations of all shovel tests with survey-grade GPS equipment with reported sub-meter accuracy, while also noting shovel test locations on field maps.

Stratigraphic profiles, including excavated depth, soil color, and texture, for all shovel tests were recorded on standardized field record sheets (see Appendices C and D). During the course of the Phase 1 fieldwork, EDR consulted with NYSOPRHP regarding the presentation of the stratigraphic profiles within this report. EDR noted that the majority of shovel tests within the Project site did not include cultural materials and proposed that only a sample of the shovel test stratigraphic profiles be included in tabular format within the report. EDR proposed that a 10% sample of the shovel tests, as well as all the shovel tests located in the vicinity of the MDS sites within the Project site, be included in tabular format in the report. NYSOPRHP concurred with this proposal (Perazio, 2013b; see Appendix B). Accordingly, stratigraphic profiles from a representative sample of shovel tests are included in tabular format in Appendix C of this report. Scanned copies of all shovel test records are included in digital format as a PDF included on a CD as Appendix D of this report.

EDR personnel organized shovel testing within the various areas of the Project site as follows:

- *Wetland Margin Areas and Esker*: EDR organized shovel testing of the margin areas around wetlands (including the esker) within the Project site according to the buildable areas designated by CHA on Figure 4 (i.e., Buildable Areas 1-6) and were labeled accordingly by EDR for fieldwork and reporting purposes (Figure 13: Sheets 1-3). In accordance with *NYAC Standards* (1994) as recommended for use by NYSOPRHP, shovel tests within these areas were completed at a 50-foot interval along three transects (with each transect spaced 50 feet apart) that followed the boundaries of delineated wetland areas within the Project site (see Figure 13). EDR designated shovel tests in these areas with a trinomial designation consisting of the Buildable Area number (i.e., Buildable Areas1-6), followed by a transect number (1, 2, or 3), and sequential shovel test number within each transect (e.g. shovel tests 1.1.01, 1.1.02; etc.).

- *MDS Sites 1 and 2*: In addition to testing the margins of wetland areas within the Project site, EDR also completed archeological surveys of two map documented structure (MDS) sites that were identified in the Phase 1A report for the Project. Both MDS sites are located on Caughdenoy Road, along the western margin of the Project site, and contain the remains of former structures detailed on mid-nineteenth to late twentieth century period maps and historic aerial imagery (Figures 7-12, 15, 16). Shovel tests within MDS areas were excavated at variable 25-foot or 50-foot intervals, with the closer interval testing conducted in the vicinity of assumed structure locations that were not readily apparent based on foundation remains or other indications (see Section 4.3 of this report, below). Each potential archeological site area was designated with a letter (e.g., "A", "B", "C"). In these areas, shovel tests were designated with the letter assigned to that potential site area, followed by grid coordinates indicating distances in feet north and east from an arbitrary site datum (e.g., "B.N100-E100", "C.N150-E150", etc.; see Figures 14 and 15).

- *Sewer Line Route*: EDR also completed shovel testing and pedestrian survey of the proposed route of the sewer line that will connect the proposed business park with the nearby Oak Orchard WWTP. In this portion of the Project site, shovel tests followed the center line of the sewer route and were placed at a 50 foot interval along a single transect (see Figure 13: Sheets 3-6). Shovel tests along the sewer line route were designated U1 (i.e., utility line 1) followed by a sequential shovel test number (e.g. shovel tests U1.01, U1.02, etc.).

All soils excavated from shovel tests were screened through 0.25-inch hardware cloth. The presence of clearly modern and recent materials, such as plastic & glass bottle fragments or mid- to late twentieth-century architectural materials, in shovel tests was noted on field forms but these materials were typically not collected for subsequent analysis. If prehistoric Native American and/or potentially significant historic-period artifacts were recovered from a shovel test, EDR archeologists excavated additional "radial" shovel tests per the NYSOPRHP's *Phase 1 Archeological Report Format Requirements* (NYSOPRHP, 2005) in cardinal directions around the original find. The NYSOPRHP guidance indicates when prehistoric Native American artifacts are recovered from an isolated shovel test, then up to eight additional shovel tests will need to be excavated around the original shovel test to determine whether the artifacts represent an isolated find or may indicate the presence of a more substantial archeological site. The additional shovel tests should be excavated at one-meter and three-meter intervals in the cardinal directions (or as appropriate based on the project configuration) around the original shovel test.

Artifacts recovered from shovel tests were placed in plastic bags labeled with standard archeological information, including location and provenience information. Following completion of fieldwork, all recovered materials were washed, identified, inventoried, and re-bagged in labeled and clean 4-mil archival quality plastic bags. All artifacts recovered were then identified and described based on material type and standard descriptive characteristics and included in an artifact inventory (see Appendix E). Photographs of representative artifacts recovered from archeological sites are included in Appendix A (Photographs 98-112).

4.2 Phase 1 Archeological Survey Fieldwork Results

EDR conducted the Phase 1 archeological survey fieldwork for the Project between May 29 and July 10, 2013. Fieldwork was conducted under the direct supervision of Arron Kotlensky, Senior Archeologist with EDR and a Registered Professional Archeologist (RPA), assisted by Diane Bonn, Sam Holmes, and Fran McCormick (Archeological Field Assistants) and Eric Lockard and Connor Liddell (GPS Technicians), with Patrick Heaton (Project Manager, RPA) providing oversight for all of the fieldwork. Photographs of representative conditions encountered during the Phase 1 survey are included in Appendix A (Photographs 42-74).

EDR personnel excavated 1,414 shovel tests (in total) during the course of the Phase 1 survey. Within the proposed business park site, EDR completed a total of 1,095 shovel tests (see Figure 13: Sheets 1-3). These included 959 shovel tests located in the margin areas around previously delineated wetlands and/or the vicinity of the esker located on site. EDR also conducted archeological investigations of two MDS sites (Caughdenoy Road MDS 1 & MDS 2; see Section 4.3, below, and Appendix E) that were identified in the Phase 1A report (EDR, 2012; see Sections 2.5 and 3.2, above). EDR completed a total of 136 shovel tests at both sites (including 51 shovel tests at MDS 1 and 85 shovel tests at MDS 2). In addition, EDR excavated 319 shovel tests and an approximately 600-foot (183-meter) long segment of pedestrian survey in a cultivated field along the proposed route of the sewer line (Figure 13; Sheets 3-6). A summary of the level of effort for the Phase 1 survey is presented in Table 6.

Table 6. Phase 1 Archeological Testing Summary

Archeological Survey Area	Shovel Tests	Comments/ Artifacts Recovered	Archeological Sites Identified	Photographs (Appendix A)
1	1.1.01–1.1.101 1.2.01–1.2.105 1.3.01–1.3.105 A1–A4	Shovel tests 1.1.18, 1.1.22, 1.1.37, 1.1.45 - historic/modern materials recovered; Potential feature A (mound of stones), Shovel tests A1–A4, no artifacts recovered	None	42-46
2	2.1.01–2.1.36 2.2.01–2.2.34 2.3.01–2.3.38	Shovel tests 2.2.17 and 2.3.18 – historic/modern materials recovered	None	47-51
3	3.1.01–3.1.65 3.2.01–3.2.62 3.3.01–3.3.55	Shovel tests 3.1.22 and 3.1.65 - historic/modern materials recovered	None	52-54
4	4.1.01–4.1.43 4.2.01–4.2.34 4.3.01–4.3.30	No cultural materials recovered	None	55-58
5	5.1.01–5.1.74 5.2.01–5.2.58 5.3.01–5.3.52	Shovel test 5.1.23 - historic/modern materials recovered	None	59-62
6	6.1.01–6.1.26 6.2.01–6.2.20 6.3.01–6.3.17	No materials recovered	None	63-65
Sewer line	U1.01–U1.313	U1.30, U1.66, U1.88 - Historic/modern materials recovered	None	66-74

Archeological Survey Area	Shovel Tests	Comments/ Artifacts Recovered	Archeological Sites Identified	Photographs (Appendix A)
Caughdenoy Road MDS 1 Site;	51 shovel tests	Features B1-B4 10 positive shovel tests – Historic/modern materials recovered	Caughdenoy Road MDS 1 Site	75-78; 82-87
Caughdenoy Road MDS 2 Site;	85 shovel tests	Features C1-C8 6 positive shovel tests – Historic/modern materials recovered	Caughdenoy Road MDS 1 Site	79-81; 88-96

Shovel tests typically ranged in depth from approximately 20 to 45 cm (8-18 in) below ground surface (bgs). Observed soils were relatively uniform across the Project site and strongly suggest intensive previous cultivation in several areas (Buildable Area 3, in particular). Soil profiles typically included an upper stratum of uniform, dark grayish brown to brown silt loam with trace pebbles or cobbles, with typical depths ranging between 25 and 35 cm (9-14 in) bgs. These uppermost soils frequently displayed characteristics of a distinct plowzone (uniformity with a lack of pebbles/cobbles) and were underlain by distinct dark yellowish brown to yellowish brown silt loam to silty clay, with trace pebbles and cobbles. The subsoil observed in several shovel tests contained evidence of recent hydric conditions, including immediate water percolation and reduction-oxidation ("redox") indicators. Relatively few larger cobbles or boulders were encountered in shovel tests within the Project site (see Appendices C and D).

Apart from the results of EDR's intensive archeological surveys of the Caughdenoy Road MDS 1 and MDS 2 sites (discussed in detail in Section 4.3, below), the archeological survey of the Project site did not identify any additional archeological sites, prehistoric or historic. Potential archeological features were observed in two areas (other than the Caughdenoy Road MDS 1 and 2 sites). In both cases, the fieldwork conducted for the Phase 1 survey was sufficient to determine that these areas did not warrant further consideration as archeological resources. These areas are described below:

- In Buildable Area 1, EDR personnel encountered a roughly rectilinear mound or pile of field stones flanked by large, mature hardwood trees in proximity to shovel test 1.1.71. This area was designated as potential archeological site "A" (see Figure 13: Sheet 3). To determine whether this mound of fieldstones represented an archeological site, EDR personnel excavated four shovel tests (A1 through A4) around the perimeter of the mound of fieldstones. No artifacts were recovered from these four shovel tests. Additionally, EDR personnel completed a pedestrian reconnaissance of the immediate area and observed no additional evidence of a possible structure or other identifiable archeological feature. Given the extended use of the property for agricultural activities, the assemblage of field stones and mature hardwood trees may represent a pile of fieldstone removed from cultivated fields and/or a cluster of shade trees in a former pasture area. Historic aerial imagery, dating from 1956 and 1972 (Figures 16 and 17), depict a darker shaded area in this area, suggesting that the small copse of trees that remain standing were present historically. No structural footprint or other clear indication of an archeological feature is evident in either image. Based on the results of the Phase 1 survey, EDR determined that the mound of fieldstones did not represent an archeological site.

- Along the route of the proposed sewer line, EDR personnel recovered three (3) mid-nineteenth to early twentieth century domestic site-related artifacts (including a likely fragment of plaster, undecorated white-ware, and a fragment of clear vessel glass) from shovel test U1.30 (see Appendix D: Artifact Inventory; Figure 13: Sheet 4). To determine whether these finds indicated the possible presence of a historic-period archeological site, EDR completed an additional six shovel tests at cardinal directions around shovel test U1.30, to the northwest, north, northeast, west, east, and south at a 25 foot (7.5 m) intervals (areas located southwest and southeast of shovel test U1.30 were heavily disturbed by recent ATV traffic along an unimproved road surface so no shovel tests were excavated at these locations). No additional artifacts were recovered from these shovel tests. In addition to the radial shovel tests, EDR personnel completed a pedestrian reconnaissance in the area of shovel test U1.30 but observed no evidence of obvious structural remains (e.g., foundation masonry, depressions, shaft features). Historic maps (Figures 7-12) do not depict any historic structures in the vicinity of shovel test U1.30. The recovered artifacts likely represent agricultural field scatter and are not considered archeologically significant.

No shovel tests were excavated in areas previously disturbed by existing utilities. The results of the utility mark outs (and results of shovel testing in some areas) indicate that many segments of the proposed sewer line are located in previously disturbed areas (see Figure 13: Sheets 3-6, and Appendix A: Photographs 69, 70, 72).

4.3 Identified Archeological Sites

EDR recovered 214 artifacts from shovel tests during the Phase 1 survey (see Appendix E). No prehistoric Native American artifacts were recovered from any shovel tests during the Phase 1 survey. As described above, when modern artifacts were observed in shovel tests their presence was noted but they were not typically collected for further analysis. Historic-period artifacts recovered during the Phase 1 survey are enumerated in Appendix D. Concentrations of artifacts that warrant consideration as archeological sites were identified in two areas (the Caughdenoy Road MDS 1 site and the Caughdenoy Road MDS 2 site) within the Project site, which are each treated in further detail below.

Caughdenoy Road MDS 1

Site Location

Caughdenoy Road MDS 1 is located within an overgrown area that includes forest and successional vegetation located along the east side of Caughdenoy Road, approximately 2,650 feet north of the intersection with NYS Route 31 (Figure 13: Sheet 2 and Figure 14). The site is bounded on the west by a portion of Caughdenoy Road and on the south by a hedgerow that runs perpendicular to Caughdenoy Road. The area east of the site is forested wetland and area north of the site is open agricultural fields.

Historical Documentation

As described in Section 2.5, Caughdenoy Road MDS 1 is first identified in the 1854 Fagan *Map of Onondaga County* (see Figure 7), which identifies a structure in this location as being occupied by "H. Summer", who is likely the "Henry Summers" listed in the 1850 U.S. census (U.S. Census Bureau, 1850) within the Town of Clay. H. Summers is also listed as the resident of this location in the 1860 Sweet *Map of Onondaga County* (see Figure 8). Henry Summers was a farmer who lived in the Town of Clay from at least 1850 to 1880. Summers was a white farmer born in New York state in 1814 (date of death unknown), eventually marrying Mary Summers (maiden name unknown), with whom he had at least one child, David N. Summers.

The 1874 and 1889 maps (see Figures 9 and 10) identify "I. Van Vleck" as the owner or occupant of MDS 1. Isaac Van Vleck is identified in the 1870 census as a farmer in the Town of Clay. Isaac Van Vleck was born in 1821, possibly in the Town of Salina, to Abraham and Helen Van Vleck. In 1850 Isaac was working as a salt merchant and may have married his wife by this point in time, but by 1860 had become a farmer like his father. At this point, two generations of the Van Vleck family were living together in the Town of Schroeppel, in Oswego County. Isaac, his father, his apparent wife, and their children are listed in the 1870 census as living in the Town of Clay, so the property in question may have been acquired by this point in time (especially considering it is listed in the 1874 Sweet map as belonging to Van Vleck). Given that both Henry Summers and Isaac Van Vleck were identified as farmers in census records and that the physical extent of Caughdenoy Road MDS 1 is relatively limited and appears to have contained with no more than a couple of primary structures, it is reasonable to conclude that this property was used strictly for residential and agricultural purposes.

Aerial photographs of the site from 1956 and 1972 show two or three structures standing at the site (Figures 16 and 17). As noted in the Phase 1A report prepared for the Project (EDR, 2012), an Environmental Site Assessment (ESA) was conducted for this parcel in June of 2004. The ESA noted that a vacant, 40 foot by 35 foot, two-story detached dwelling and 25 foot by 40 foot three-car garage remained standing within the site, with a septic tank and leach field located east of the house (C&S Engineers, Inc., 2004). The house and garage stood at Caughdenoy Road MDS Site 1 until approximately four to five years ago, when the buildings were demolished and removed (Provo, 2012).

Archaeological Reconnaissance and Testing

Archeological survey conducted at the site included a pedestrian reconnaissance and shovel testing. The pedestrian reconnaissance served to identify readily apparent foundation remains and establish preliminary site boundaries (based on foundation remains, vegetation patterns, and other observed surface conditions). The western portion of the site appears to be a formerly open yard that is in the process of being overgrown with successional vegetation (Photographs 75-76). The eastern portion of the site is overgrown with better established (estimated at 30-40 years) successional forest vegetation. Several older hardwood trees (probable shade trees) and areas of shrubby, ornamental vegetation in the western part of the site suggest the former presence of a house and yard, including two Norway spruce, a large, senescent maple, a dwarf white spruce, and multi-flora rose to the south of the Norway spruce and maple trees mentioned above (see Figure 14). Other ornamental and non-native vegetation in the vicinity of the former house site include garlic, mint, day lilies, cherry trees, white birch, and extensive raspberry bushes and wild grapevines, suggesting a mix of domestic gardening and permaculture around the site. Weed vegetation, coupled with hummocky ground surface with bare sub soil and crushed stone, indicates that the former site of the house (in the center of the open yard area) is significantly disturbed. The eastern edge of the former open yard area is defined by a series of berms (or push-piles) that run north-south along the eastern edge of the yard. Surface materials and artifacts recovered from shovel tests in this area included a mixture of modern and recent domestic and architectural debris dating from the nineteenth century through the mid-to-late twentieth century (see below). Conversations with current residents in the area suggest that the house and possible garage remained standing until four or five years ago, at which point they were demolished, which accounts for the well-disturbed soils and push piles (Provo, 2012).

In total, 51 shovel tests were excavated at the site. Shovel testing was performed across the site in a grid pattern, at 50 foot (approximately 15 m) intervals running east from Caughdenoy Road to the western edge of the site (see Figure 14). Shovel tests were designated with a “B” followed by grid coordinates that referenced each shovel test’s distance (in feet) from a site datum (B.N100-E000), which was located at the southwestern most point of the designated site survey area. The northernmost transect of shovel tests began at B.N400-E000, 300 feet (91 m) north of the site datum, and the easternmost shovel tests were dug at B.N100-E350 and B.N150-E350. Additional shovel tests were completed at 25 foot (7.5 m) intervals in the vicinity of observed foundation remains and the presumed former location of the house (see Figure 14). These included five additional shovel tests in the vicinity of the former house site (shovel tests B.N200-E075, B.N225-E050, B.N225-E075, B.N225-E100, and B.N250-E075) and seven additional shovel tests (B.N125-E100, B.N125-E125, B.N125-E150, B.N150-E125, B.N175-E100, B.N175-E125, and B.N175-E150) in the former yard area around the garage foundation (Feature B1, see below).

Across the site, most shovel tests revealed a surface layer of soil characterized by a medium-dark yellow-brown silt-clay loam, changing to a subsoil starting around 8 to 14 inches (20 to 35 cm) in depth, characterized by dark yellow clay loam with higher moisture content. This pattern only deviated in shovel tests either in the vicinity of Feature B1 and within the area of the presumed house site, particularly shovel tests B.N200-E050, B.N200-E100, B.N225-E050, B.N225-E075, and B.N250-E075, all of which were characterized by heavily disturbed soils and all of which yielded artifacts (except for shovel test B.N225-E050). These shovel tests lacked intact topsoil and generally exhibited soils characterized by compact, mixed silt loam and silt clay loam that included gravel/crushed stone, concrete, rock, structural timbers and debris, charcoal/burnt materials, architectural hardware (nails) and fragments of flat glass. The disturbed soils observed in these shovel tests generally represent the location and immediate vicinity of the former house that was demolished at the site ca. 2007-2008 (Provo, 2012).

Archeological Features

The Caughdenoy Road MDS 1 site contains the probable remnants of a house, garage, barn, silo, and well (see Figure 14). The site of the former house, located generally southeast of the remnants of an asphalt driveway intersecting Caughdenoy Road between B.N175-N225 and B.E50-E100 (within the site grid), is characterized by a slightly higher elevation than the area around it (Photographs 75-76). The ground within the house site is marked by several hummocks with depressions, tall weeds and grassy vegetation, and disturbed soils to 80 cm (32 in), which were encountered in shovel tests along the B.N200 and B.N225 transects. No indications of an intact foundation were observed. The surface conditions and soils observed in shovel tests are consistent with a local resident's information that the house was demolished and the site bulldozed within the past few years (Provo, 2012). A structure (presumably the house) is also shown in this general location on aerial photographs from 1956 and 1972 (Figures 16 and 17)

Four extant features were identified through pedestrian survey and shovel testing around Caughdenoy Road MDS 1 during the archeological survey, including a well, two foundations (that appear to represent a garage and a barn), and the circular foundation of a silo (see Figure 14). These features are described as follows:

- **Feature B1** is a rectilinear, poured concrete foundation (Photograph 77), that measures approximately 30 feet (9.1 m) east-west by 12 feet (3.7 m) north-south. The walls of the foundation are about 9 inches (23 cm) wide, rising to 10 inches (25 cm) above the grade of the surrounding area, and are marked by steel anchor bolts that rise vertically from the lip of the foundation, likely intended to fix the walls of the structure to the foundation. The interior of the foundation is recessed vertically to about four inches (10 cm) below the top of the wall. Within the exterior perimeter walls, a thin layer of organic material (primarily leaf litter) overlays a concrete floor. The feature is located between B.N125 and B.N150 feet between B.E100 and B.E150 (see Figure 14). Given the size and orientation of the feature, its proximity to the presumed house site, and its apparent recent (mid-twentieth-century) origin it most likely represents a modern garage/carport structure. A structure is shown in this approximate location on an aerial photograph from 1956 (Figure 16).

- **Feature B2** is a circular poured concrete foundation (Photograph 78) that is approximately 14 feet (4.3 m) in diameter. The concrete lip of the foundation is about one foot (30 cm) wide, rising to 8 inches (20 cm) above the grade of the surrounding area. The foundation and the surrounding area are largely overgrown with weeds, grapevines, and poison ivy. Given its shape, dimensions, and proximity to a possible barn structure (see Feature B3), it appears to represent the base of an agricultural silo. The feature is located near the far northeastern extent of the site, between B.E200 and B.E250 and between B.N425 and B.N450.

- **Feature B3** is comprised of fieldstone wall segments—some of which are capped with poured concrete—that form a rectangular space oriented approximately north-to-south and east-to-west with an extended eastern wall (Photographs 79-80). The northern and southern wall segments of the foundation measure roughly 18 feet (5.5 m) in length, the western wall segment measures approximately 23 feet (7 m), and the eastern wall segment measure approximately 46 feet (14m). The feature is located between approximately B.N375 and B.N425 and between B.E175 and B.E225. The northern end of the extended eastern wall segment is about 15 feet (4.6 m) south and 10 feet (3 m) west of Feature B2 (i.e., the silo foundation). The area east and northeast of the Feature B3 is depressed, open, and overgrown with weed grasses, suggesting the interior space of a former barn structure, likely measuring at least 50 feet by 50 feet (15.2 m x 15.2 m). Given the past agricultural use of the property as well as the feature's shape, dimensions, and proximity to an apparent silo foundation, Feature B3 appears to represent a the foundation of a stock barn. A structure is shown in this approximate location on aerial photographs from 1956 and 1972 (Figures 16 and 17).

- **Feature B4** is a 5 foot by 5 foot (1.5 m x 1.5 m), square, concrete block shaft capped by a rusted sheet of corrugated metal roofing or siding (Photograph 81). The feature appears to represent a well or cistern - the feature's depth could not be determined. Feature B4 is located approximately at B.E150 feet between B.N200 and B.N225, approximately midway between the former house site and barn foundation (i.e., Feature B3).

Artifacts

In total, 71 artifacts were recovered from 10 shovel tests at the site (see Appendix E and Table 7, below). Almost all of the artifacts recovered from the site were from shovel tests located in the immediate vicinity of either Feature B1 (the garage foundation) or the former house site.

Table 7. Summary of Artifacts Recovered at Caughdenoy Road MDS 1.

Shovel Test	Stratum	Depth	Count	Description	Date Range
B.N100-E350	1	0-48 cm	3	nails and wire (architectural); ferrous	19th-20th cent.
B.N175-E100	1	0-25 cm	4	coal ash (3), plastic (1)	unknown/modern
B.N200-E050	2	62-82 cm	1	nail (architectural); ferrous	19th-20th cent.
B.N200-E100	1	0-82 cm	31	roof tile (1), brick (1), nails (7), metal—bullet casing (1), ceramic (14—6 terracotta, 8 white ware), glass (7, vessel & flat)	var.
B.N200-E150	1	0-34 cm	3	white ware (1), nails (2)	19th-20th cent.
B.N225-E075	2	42-64 cm	17	nails (2), metal chain (1), flat/window glass (14)	19th-20th cent.
B.N250-E075	2	40-60 cm	4	bone (3), flat/window glass (1)	unknown
B.N250-E100	2	20-30 cm	1	bone (animal); cut	unknown
B.N250-E200	1	0-35 cm	6	misc. metal (4), ceramic (1), glass (1—food, serving)	19th-20th cent.
B.N350-E050	2	25-75 cm	1	ceramic (1—decorative tile)	unknown
			71	**Total Artifacts—MDS 1 (10 total positive STPs)**	

The majority of recovered artifacts were ceramic, glass, and metal, including white earthenware, flower pot terracotta, architectural metal/hardware (primarily wire nails), flat/window glass with smaller quantities of serving/vessel glassware fragments, and miscellaneous/unidentified metal fragments (Photographs 98-103). A few bone fragments were recovered, including one piece of cut bone, several pieces of coal ash, one piece of plastic, one .22 caliber cartridge, a fragment of roof tile, and one decorative ceramic tile fragment. No prehistoric artifacts were recovered during the survey of the site. Artifacts recovered from the site date between the second half of the nineteenth century and the mid-to-late twentieth century.

In addition, as described above there is a series of push-piles located east of the former house site, located between approximately B.N200 and B.N300 and between B.E175 and B.E225 (see Figure 14). Scattered piles of domestic refuse are distributed on the ground surface across and around these push piles. This refuse includes metal buckets, paint cans, metal drums/barrels, box-springs, metal hardware (bolts, rods, and cables), agricultural implements, automobile/truck parts, rubber tires, concrete blocks/fragments, butchered bone fragments, canning and mason jars, stoneware crocks, plastic jugs/bottles, and glass bottles ((Photograph 82)). None of these materials were collected for further analysis. In general, the dates of the materials included in this scattered rubbish are consistent with the assumed abandonment of the property, i.e., during the mid to late twentieth century.

Taken together, the artifact assemblage recovered from and observed at the site is indicative of a domestic habitation spanning the map documented dates of occupation of the site and does not suggest an earlier, unrecorded occupation of the site or alternative uses of the site that were not recorded by either period maps or other consulted historical records. The locations of foundation remains at the site are generally consistent with what appear to be structures on aerial photographs of the site from 1956 and 1972 (Figures 16 and 17). Based on the terminal dating of the artifact assemblage, the site may have been abandoned as early as the 1960s or 1970s.

Caughdenoy Road MDS 2

Site Location

Caughdenoy Road MDS 2 is located within an overgrown forested area on the east side of Caughdenoy Road, approximately 1,150 feet north of NYS Route 31. The area intensively surveyed around this site measured approximately 350 feet (107m) east to west by 450 feet (137 m) north to south (Figure 13: Sheet 3 and Figure 15).

Historical Documentation

The Caughdenoy Road MDS 2 site is first identified in the 1854 Fagan *Map of Onondaga County* (see Figure 6), which identifies a structure in the location of MDS 2 as belonging to a C. Mogg. This would appear to be Cornelius Mogg, who is listed in the 1850 census as a resident of the Town of Clay and a carpenter born in 1821 (U.S. Census Bureau, 1850). At that time, Cornelius was married to a Corina Mogg. Between the 1850, 1860, and 1870 censuses, her name is spelled Corina, Lavina, and Lovina respectively, though it appears to be the same individual (U.S. Census Bureau, 1850, 1860, 1870). Together they had three sons: Levi, born in 1849; Curtis, born in 1854; and Elmer, born in 1861. Cornelius Mogg remained more or less in the same line of work, listed as a lumberman in the 1860 census and then as a farmer in the 1870 U.S. Census. By 1860, however, the site had become the property of a W. H. Ostrander, who is identified as the owner in the 1860 Sweet *Map of Onondaga County* (Figure 7), which also identifies the site as the location of a cigar manufactory.

Sometime between 1850 and 1860, William H. Ostrander moved from the Town of Danube in Herkimer County to the Town of Clay with his wife Arian (who was just a year or less younger than William) and their young son, Henry. It is unclear if Henry, born in 1849, lived past the age of 11—he is not listed in the 1860, 1870, or 1880 censuses. It appears that the Ostranders took on several boarders over the years; however, these primarily included farm laborers, presumably working on the Ostranders' lands, but also extended family (such as William's brother Orlando, sister-in-law Judeth, nephew Harry, and aunt Polly Diefendorf, all listed as part of the Ostrander household in the 1880 census), and also a couple of cigarmakers. Though the 1860 census lists W. H. Ostrander's occupation as a farmer (which was William's listed occupation in every census recovered), it also identifies a cigar manufacturer named William L. Coughtry as living in that residence (U.S. Census Bureau, 1860). William L. Coughtry was likely related to Jacob W. Coughtry, who owned the J. W. Coughtry & Sons Cigar Manufacturers. However, after the 1860 census, no trace of William L. Coughtry could be found in the Town of Clay. As described in Section 2.5, cigar manufacturing became a prominent industry in Clay in the latter half of the nineteenth century and the crossroads hamlet located along the Rome, Watertown & Ogdensburg Railroad west of the Project site was known as Cigarville[1]. By 1889, the Coughtry cigar manufactory had relocated to a site in Cigarville (see Figure 10).

By 1874 Caughdenoy Road MDS 2 was identified as the property and/or residence of I. Freeman (see Figure 9). This is most likely the Irving Freeman listed in the 1870 census as a farmer in the Town of Clay (U.S. Census Bureau, 1870). Freeman is the last identified property owner on this site, listed in the 1889 Sweet *Map of Onondaga County* (see Figure 9). According to census records, Irving Freeman first appears as a resident of the Town of Clay in 1870 as (a very likely misspelled) "Ervira" Freeman, living with Henry and Margaret Brown, then ages 56 and 48. In 1870, "Ervira" was listed as being 14 years of age, meaning that if the Caughdenoy Road MDS 2 property belonged to him in 1874, then he was no more than 18 years old at the time. It is unclear what the relation was between Irving Freeman and the Browns, if there were any—the Browns did not have any natural children listed as living with them in 1870, and no other conclusive records of the Browns can be found at this time. It is likely that Irving taken in as a boarder and a hired hand. The 1870 census also lists a 22 year-old farmer named Charles Young and a 17 year-old schoolteacher named Mary McCullock living in the Brown household.

Irving was listed as a farmer and a member of the Brown household in the 1880 census as well, along with Irving's wife Rose and a slightly older (28 year-old), unrelated individual named Barker Rhodes, then listed as a telegraph operator. If Irving Freeman was still the owner of the property at MDS 2 at this point in time, then that would suggest that the Browns had also been living there for at least as long. Regardless, in 1900 Irving Freeman was listed as the head of the household, living with his wife Rose and Margaret Brown. By this point in time, Henry Brown may have passed away and Irving was working as a canal superintendent. The 1910 census no longer lists Margaret Brown as a part of the Freeman household, but it does include a Florence Freeman, listed as the daughter of Rose and Irving—who is then listed as a State Official. Finally, in 1920, the Freeman household included Irving, then a County Sherriff, Rose, their daughter Florence (now having taken the name Edgren), and her husband, a bookkeeper named Edward Edgren (USCB, 1900, 1910, 1920). Irving died in 1934.

Aerial photographs of the site from 1956 and 1972 show three or four structures standing at the site (Figures 16 and 17). According to EDR's interviews with a local historian, in the 1960s the property was purchased by the Lombardy Tank Company. These owners brought cattle to the site in September of 1965, but then moved these from the site in

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[1] The Cigarville railroad station was built in what is now the hamlet of Clay around 1871, as was the Cigarville post office. The first historical map to identify the hamlet of Clay as "Cigarville" was the 1874 Sweet *Map of Onondaga County* (see Figure 9); the last historical map to identify the hamlet of Clay as Cigarville was the 1898 USGS topographical map of Syracuse (Figure 11).

January of 1966. The primary house structure on the property, which was described as a one-story building constructed of hewn timbers, burned down by 1970 – possibly as a result of lightning strike. The barn associated with the property was later taken down in the early 1990s (Young, 2013).

Archaeological Reconnaissance and Testing

Archeological survey conducted at the site included a pedestrian reconnaissance and shovel testing. The pedestrian reconnaissance served to identify readily apparent foundation remains and establish preliminary site boundaries (based on foundation remains, vegetation patterns, and other observed surface conditions). The entire site is overgrown with established (estimated at 30-40 years) successional shrub and forest vegetation (Photograph 83). Distinctive vegetation includes a large stand of Japanese knotweed in the southern part of the site (Photograph 84). This stand of Japanese knotweed lies immediately to the south of an overgrown clearing, measuring approximately 50 feet north-south (15m) by 125 feet east-west (38 m), perpendicular to and extending from Caughdenoy Road toward a mature Norway Spruce and a large maple located approximately 50 feet (15m) east and northeast (respectively) of the northern boundary of the Japanese knotweed. As described below, the stand of knotweed appears to be located in an area of disturbed soils with burnt material (assumed to be associated with the former location of the house). The overgrown clearing, north of the knotweed, appears to represent the locations of a historic drive or lane and yard adjacent to the presumed house site.

In total, 85 shovel tests were excavated at the site. Similar to the testing strategy at Caughdenoy Road MDS Site 1, shovel testing was performed across the site in a grid pattern at 50-foot intervals running east from Caughdenoy Road to the western edge of the site (see Figure 15). Shovel tests were designated with a "C" followed by grid coordinates that referenced each shovel test's distance (in feet) from a site datum (C.N200-E000), which was located at the southwestern most point of the designated site survey area. The northernmost transect of shovel tests followed gridline C.N550 and the easternmost shovel tests were excavated along grid line C.E350 (350 feet north and east of the site datum, respectively). Additional shovel tests were excavated at 25-foot intervals in areas extant foundations, suspected locations of former structures, and/or high artifact concentrations. These included transects C.N200 (shovel tests were excavated at 25-foot intervals between C.E075 and C.E225), C.N225 (E075-E.225), C.N250 (E025-E.225), C.N275 (E050-E.225), and C.N300 (E075-E225; see Figure 15).

Across the site, stratigraphy observed in most shovel tests included a surface layer of soil characterized by some variation of silty-loam and silty-clay-loam and generally either a dark brown (occasionally near-black) color, or a neutral, medium-brown color. The shift to subsoil generally occurred between 25 and 35cm in depth, and was accompanied by a color shift to a much lighter, occasionally pale tan-yellow color; the subsoil texture is similar to the surface level, though in many areas included higher clay content.

Archeological Features

A large, dense stand of Japanese knotweed is located within the site between approximately C.N200 and C.N300 and between C.E120 and C.E210 (see Figure 15; Photograph 84). Based on EDR's interview with a local historian, this distinctive area of vegetation represents the former location of the house on the site (Young, 2013). A structure appears to be shown in this approximate location on aerial photographs from 1956 and 1972 (Figures 16 and 17). Shovel tests in this area included disturbed soils with frequent burned material, charcoal, and coal/coal slag as well as relatively greater number of historic period artifacts, including fragments of flat (window glass), small brick fragments, mortar, nails, whiteware and stoneware sherds, vessel glass fragments, and unidentified/miscellaneous metal fragments (see below and Appendix C). A few large fieldstones were observed within this area of knotweed, although no readily apparent pattern or arrangement was observed. These stones may have served at one time as part of a foundation or footings for the former structure in this area. Scattered structural debris, such as asbestos tile fragments and asphalt shingle fragments, were also observed on the ground surface in this area.

Eight extant archeological features were identified at Caughdenoy Road MDS 2, including four wells, one extant silo, one barn foundation, and two fieldstone mounds/piles. These features are as follows:

- **Feature C1** is a large foundation with mixed construction materials including poured concrete, concrete block, and mortared fieldstone that taken together appear to represent the foundation of a barn (Photographs 85-88). The wall segments stand generally 12 to 30 inches (30 to 76 cm) above grade, and include several structural anchor bolts, typically spaced five to six feet (1.5 m to 1.8 m) apart. The full extent of these foundations and the associated structure(s) or extensions is difficult to determine due to the poor state of preservation, density of ground cover, and presence of numerous felled (or blown down) trees over the southern part of the foundation area. The northernmost wall segment measures nearly 81 feet (24 m) in length, running east-west. Another foundation footer runs at least 77 feet (23 m) north-south across the approximate center of the barn, with additional shorter segments running perpendicular to this long foundation wall, suggesting a structure with multiple bays and additions. In total, the foundation covers an area greater of 80 feet (24.4 m) by 80 feet (or more), located between approximately C.N400 and C.N500 and between C.E100 and C.E200. The shorter, interior foundation wall segments exhibit variable construction materials (fieldstone, some capped with cement, and concrete blocks) suggesting multiple episodes of construction. There are also remains of a rectangular, thin-walled, galvanized sheet-metal basin adjacent to the long, center footer that probably served as a watering trough for livestock. Given its overall dimensions, its proximity to a standing concrete silo (Feature C2), the possible livestock-watering trough, and informant testimony (Young, 2013), Feature C1 appears to represent the foundation of a large barn structure. A structure with two perpendicular bays, or two adjacent/connected structures, is shown in this approximate location on aerial photographs from 1956 and 1972 (Figures 16 and 17).

- **Feature C2** is a concrete tower silo, built of concrete blocks with iron stave framing, measuring approximately 12 feet (3.7 m) in its internal diameter and (estimated) 32 feet (10m) in height (Photograph 89). The feature is located at approximately C.N475-E210. It is immediately adjacent to the northeast corner of the barn foundation (Feature C1) - the outside (western) edge of the silo is within three feet (0.9 m) of the eastern edge of the barn foundation. The silo is partially overgrown with ivy.

- **Feature C3** is a modern well, consisting of a capped steel pipe, approximately three inches in diameter and standing 24 inches above surrounding grade (Photograph 90). The well is located at approximately C.N490-E.260. The well is located approximately 50 feet east of the large concrete silo (Feature C2).

- **Feature C4** is a circular fieldstone-lined well, approximately five feet in diameter (Photograph 91). The well is currently filled with rocks and rubble, with standing water observable at approximately four feet below the ground surface. The well is located at approximately C.N315-E135, on the northern side of the large area of dense Japanese knotweed and within 50' west of an old, large maple tree. A very large Norway spruce stands near to this feature, adjacent to C.N350-E150. There is also a recent rubber hose with a steel clamp running from the well, suggesting that it may still be (or was recently) in working order.

- **Feature C5** is a circular stone-lined well, approximately five to six feet in diameter and constructed of large cobblestones and fieldstones. The feature is located at approximately C.N400-E160, south of and nearby the large barn foundation (Feature C1). The well shaft is observable to a depth of approximately three feet below the ground surface, below which it is filled with cinder blocks and large slabs of concrete (Photograph 92), which are assumed to represent demolished portions of the former barn structure and/or foundation. Other, very large slabs of concrete were observed in piles on the ground surface within an area of overgrown vegetation immediately adjacent to the well.

- **Feature C6** is a low mound or push-pile of fieldstones, located between approximately C.N.200-E.250 and C.N250-E275. Scattered piles of domestic refuse are distributed on the ground surface across and around this pile of fieldstones. This refuse includes a metal box spring, rubber tires, metal 50 gallon drums, plastic drinking cups and two-liter soda bottles, pull-tab beer cans, metal (food) cans, miscellaneous metal associated with farm machinery, glass juice and condiment bottles, and a large number of canning jars (Photographs 93-95). None of these materials were collected for further analysis. In general, the dates of the materials included in this scattered rubbish are consistent with the reported abandonment of the property, i.e., during the mid to late twentieth century.

- **Feature C7** is a modern well, similar to Feature C3, located at approximately C.N450-E100 (Photograph 96).

- **Feature C8** is a small fieldstone pile located at approximately C.N460-E340 (Photograph 97). Four oxidized fragments of nails or metal wire were recovered from shovel test C.450-E350 (adjacent to the feature; see below). Otherwise, no indications of a structure or other feature were observed and it is likely that this pile represents stones resulting from field clearing activities.

Artifacts

Artifacts were recovered from a total of 26 shovel tests (see Figure 15), with 121 artifacts recovered from the site (see Appendix E and Table 8, below). The majority of artifacts were recovered from shovel tests located in the immediate vicinity of the presumed house site (i.e., the stand of Japanese knotweed; see Figure 15) and to a lesser extent the area associated with the barn foundation and silo (Features C1 and C2, respectively).

Table 8. Summary of Artifacts Recovered at Caughdenoy Road MDS 2.

Shovel Test	Stratum	Depth	Count	Description	Date Range
C.N200-E075	1	0-5 cm	1	stoneware (1)	19th-20th cent.
C.N200-E100	1	0-28 cm	2	whiteware (1), glass (1); food—serving	20th cent.
C.N200-E125	1	0-33 cm	7	stoneware (2), flat glass (2), coal (2), slag (1)	19th-20th cent.
C.N200-E175	1	0-5 cm	1	whiteware (1)	19th-20th cent.
C.N225-E075	1	0-34 cm	2	brick fragments (2)	19th-20th cent.
C.N225-E125	0	surface	7	tile (4), brick fragments – 1 mortared (3)	19th-20th cent.
C.N225-E125	1	0-41 cm	2	coal fragments (2)	unk.
C.N225-E150	1	0-5 cm	4	stoneware (2), flat glass (1), vessel glass (1)	19th-20th cent.
C.N225-E175	1	0-5 cm	4	flat glass (2), whiteware (2)	19th-20th cent.
C.N225-E225	1	0-24 cm	8	metal button & metal fragments	19th cent.
C.N250-E075	1	0-10 cm	1	flat glass (1)	19th-20th cent.
C.N250-E100	1	0-30 cm	8	mortar (7), flat limestone w/ mortar (1)	unk.
C.N250-E125	1	0-20 cm	5	nail (1), staple (1), flat glass (1), mortar fragment (1), fabric strip (1)	19th-20th cent.
C.N250-E150	1	0-30 cm	3	whiteware (1), flat/window glass (2)	19th-20th cent.
C.N250-E175	1	0-20 cm	6	whiteware (2), coal (2), flat glass (1), brick fragment (1)	19th-20th cent.
C.N275-E075	2	40-80 cm	9	whiteware (1), bullet casing (1), vessel glass (1), nail frag. (1), brick fragment (1), misc. metal (1), mortar fragment (3)	19th-20th cent.
C.N275-E100	1	0-20 cm	4	brick fragment (1), nail (1), ceramic (1), flat glass (1)	19th-20th cent.
C.N275-E125	1	0-20 cm	6	flat glass (2), vessel glass (1), whiteware (1), redware (2)	19th-20th cent.
C.N275-E175	1	0-20 cm	1	nail (1)	19th cent.
C.N275-E200	1	0-20 cm	3	flat glass (1), vessel glass (1), mortar sample (1)	19th-20th cent.
C.N300-E075	1	0-20 cm	7	ceramic (3—white ware), flat glass (3), vessel glass (1)	19th-20th cent.
C.N350-E150	1	0-35 cm	2	steel axehead (1), shotgun casing (1)	var.

Shovel Test	Stratum	Depth	Count	Description	Date Range
C.N450-E100	1	0-28 cm	5	nail (1), misc. metal (2), flat glass (1), rubber hose (1)	19th-20th cent.
C.N450-E150	1	0-30 cm	10	brick fragments (4), vessel glass (2), flat glass (1), slate (1), misc. metal (2—painted/enameled metal)	19th-20th cent.
C.N450-E250	1	0-27 cm	7	nails, plastic-coated metal wire	19th-20th cent.
C.N450-E350	1	0-22 cm	4	nails and/or metal wire fragments	19th-20th cent.
			119	**Total Artifacts—MDS 2 (26 total positive STPs)**	

Artifacts recovered from the site include ceramic, glass (flat and vessel glass fragments), metal hardware (principally architectural in nature), brick fragments and mortar remains, including pieces of stone and brick with mortar attached (Photographs 104-112). The ceramic fragments include whiteware, with a few pieces of very thick, salt-glazed stoneware and two pieces of redware/terracotta. There were approximately twice as many fragments of flat glass as vessel glass, and the majority of metal fragments were architectural hardware (nails, staples, wires, and other forms). Some samples of coal fragments and slag were also recorded, which is consistent with the reported burning of the house at the site during the late 1960s (Young, 2013). Miscellaneous artifacts that were recovered include a button, a bullet casing, a modern plastic and metal shotgun casing, a plastic-coated wire, an enameled metal sign, and a large, historic axe head. No prehistoric artifacts were recorded. The assemblage of artifacts recovered and observed at the site date from the second half of the nineteenth century to the middle-late twentieth century.

The features and artifact assemblage observed at (and recovered from) the site reflect domestic use and agricultural production consistent with the map documented dates of occupation of the site. The locations of foundation remains at the site are generally consistent with what appear to be structures on aerial photographs of the site from 1956 and 1972 (Figures 16 and 17). Features C1, C2, C3, and C4 are all clearly modern (twentieth-century) features. Although at least one occupant of the site during the mid-nineteenth-century was reported to be a cigar manufacturer, no artifacts or features associated with that trade were identified at the site. The burning and disturbed soils observed in shovel tests in the former area of the house on the site are consistent with the reported burning of the house during the late 1960s (Young, 2013).

5.0 SUMMARY AND CONCLUSIONS

5.1 Summary of Archeological Survey Findings

Relative to archeological resources, the results of the Phase 1 survey for the proposed White Pine Commerce Park project can be summarized as follows:

- The scope of work (or research design) for Phase 1 archeological survey/testing for the Project was developed in consultation with NYSOPRHP staff (see Section 4.1 and Appendix B). NYSOPRHP recommended that an appropriate Phase 1 testing strategy for the Project site would be shovel testing (at 50-foot intervals, in most instances, in accordance with the *NYAC Standards*) in the following areas:
    a. The vicinity of the esker (see Section 2.1 and Figure 3).
    b. The areas around the two MDS depicted on historic maps (see Sections 2.5 and 3.2).
    c. A 100-foot-wide strip along the edges of wetlands and wetland buffers.
    d. Other than these areas, NYSOPRHP recommended that Phase 1 testing would not be necessary in the remaining portions of the approximately 340 -acre Project site.

  In addition, EDR excavated shovel tests at 50-foot intervals along the centerline of the proposed sewer line.
- In total, EDR personnel excavated 1,414 shovel tests during the course of the Phase 1 survey. Within the proposed business park site, EDR completed a total of 1,095 shovel tests. These included 959 shovel tests located in the margin areas around previously delineated wetlands and/or the vicinity of the esker located on site, 136 shovel tests at the Caughdenoy Road MDS 1 and MDS 2 sites (51 shovel tests at MDS 1 and 85 shovel tests at MDS 2), and 319 shovel tests along the proposed route of the sewer line.
- No prehistoric Native American artifacts or archeological sites were recovered or identified during the Phase 1 survey.
- EDR personnel recovered 214 artifacts during the Phase 1 survey (see Appendix E). Most of the recovered artifacts were associated with two historic-period sites – the Caughdenoy Road MDS 1 and 2 sites. The remaining artifacts were form the nineteenth and/or twentieth centuries and represented incidental field scatter that is not considered historically significant.
- The Caughdenoy Road MDS 1 site is a farmstead that is documented on historic maps as early as 1854. The Phase 1 survey identified four features at the site (foundations of a garage, barn, silo, and well) and determined the former location of the house at the site, which was razed ca. 2008. Artifacts recovered from shovel tests at the site generally consisted of fragmentary architectural materials (nails and window glass fragments) and small fragments of late-nineteenth to early-twentieth century ceramic and glass vessels. The area around the former house site is significantly disturbed, with stripped and graded areas, hummocks, push-piles and scattered concrete and other demolition debris. The only shaft feature identified at the site

was the well. The large push-piles that mark the eastern edge of the former yard around the house site include large quantities of domestic refuse, including box springs, metal buckets, automobile parts, paint cans, glass bottles, and plastic jugs/bottles.

- The Caughdenoy Road MDS 2 site is also a farmstead that is documented on historic maps as early as 1854. The Phase 1 survey identified eight features at the site (the foundation of a large barn, a partially standing silo, two stone-lined wells, two modern wells, and two piles of fieldstones). The former location of the house at the site, which burned and was razed ca. 1970, was determined by shovel testing. Artifacts recovered from shovel tests at the site generally consisted of fragmentary architectural materials (nails and window glass fragments) and small fragments of late-nineteenth to early-twentieth century ceramic and glass vessels. The area around the former house site is indicated by a dense stand of Japanese knotweed (an invasive species that thrives in disturbed soils). Shovel testing in this area revealed disturbed soils, with significant quantities of burnt material and charcoal, which is consistent with reports that the house burned ca. 1970. The only shaft features identified at the site were two fieldstone-lined wells. A large pile of fieldstone near the former house site included large quantities of domestic refuse, such as metal drums and buckets, glass jars and bottles, and plastic jugs/bottles. Significant portions of the large barn foundation were built with concrete cinder blocks. The partially standing silo and two metal pipes/wells at the site were also clearly of relatively recent/modern construction.
- The archeological testing conducted at the Caughdenoy Road MDS 1 and 2 sites was adequate to determine the spatial boundaries, identify foundations and other features, and generally assess the condition of archeological resources located at both of these sites.

5.2 Conclusions and Recommendations

The Phase 1 archeological survey was conducted in accordance with a work plan (or research design) that was developed in consultation with (and approved by) NYSOPRHP staff. The Phase 1 survey included the proposed location of the White Pine Commerce Park (approximately 340 acres) and a proposed four-mile long sewer line. The survey included the excavation of approximately 1,400 shovel tests from which 214 artifacts were recovered. No Native American archeological sites were identified.

The Phase 1 survey resulted in the identification of two historic-period archeological sites – the Caughdenoy Road MDS 1 and 2 sites. Both of these sites are located within the proposed White Pine Commerce Park project site. Both sites are farmstead sites that are documented on historic maps as early as 1854 and appear to have been abandoned during the mid-to-late twentieth century (ca. 1960s or 1970s). Review of historic maps and sources suggests that both sites were typical farm sites (i.e., both domestic habitation and agricultural production sites) throughout their occupation and use. There are no standing structures at either site, other than a partially standing concrete grain silo. The former locations of the house and adjacent yard area at both sites are extensively disturbed, presumably associated with the demolition of the houses at each site. Extant foundation remains observed at both sites include barns, wells, and a garage. The archeological testing conducted at the sites was adequate to determine the spatial boundaries, identify foundations and other features, and generally assess the condition of archeological resources located at both of these sites.

In the opinion of EDR, the Caughdenoy Road MDS 1 and MDS 2 sites are typical, unremarkable examples of abandoned farm sites. These types of sites are ubiquitous throughout Central New York and numerous examples in the region have previously been studied by archeologists. EDR did not identify any significant historical associations or unusual/remarkable archeological features at either site. In the opinion of EDR, the Caughdenoy Road MDS 1 and 2 sites do not warrant additional archeological research and no additional cultural resources investigations are recommended for the proposed Project.

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Figures

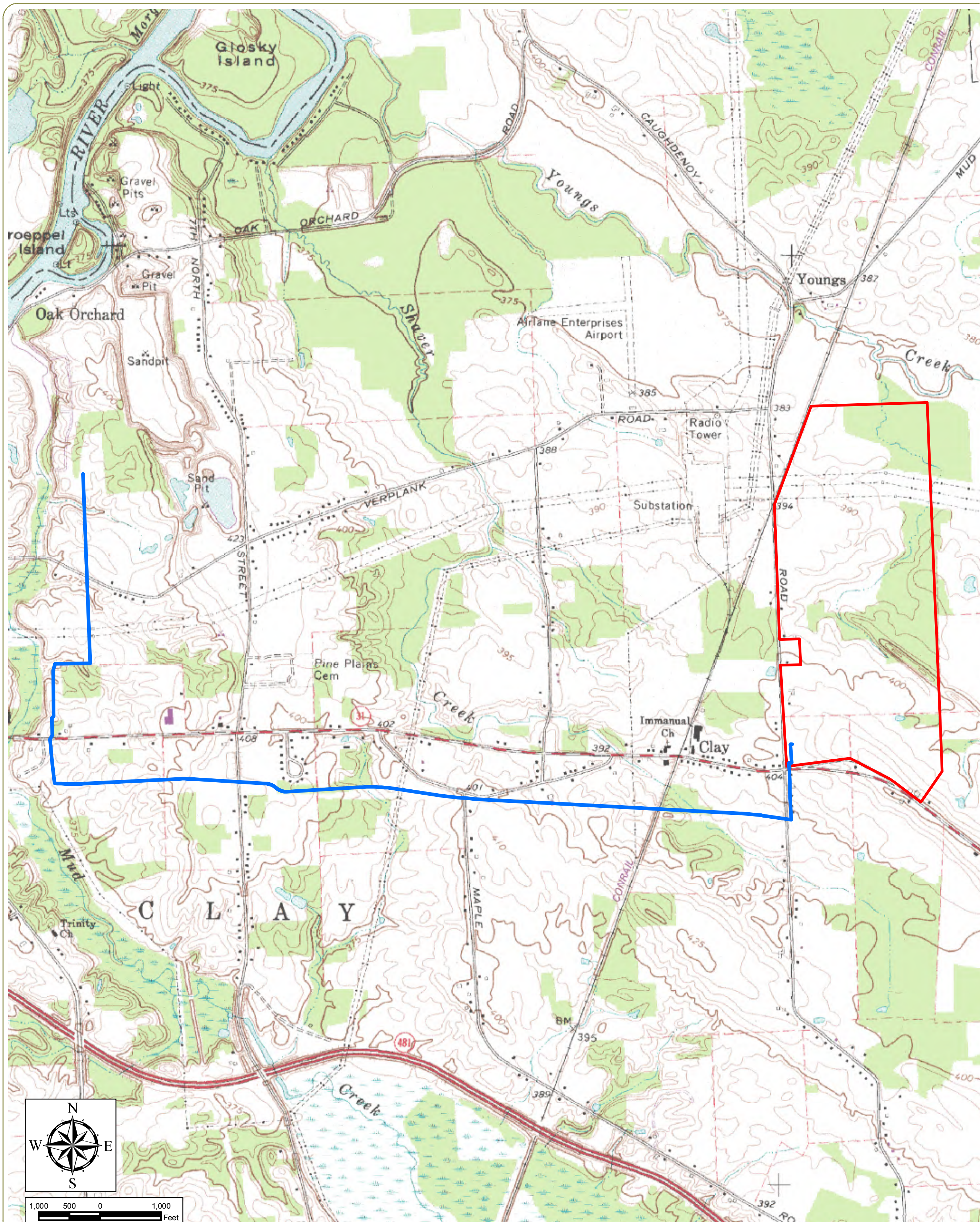
White Pine Commerce Park

Town of Clay, Onondaga County, New York

Figure 1: Regional Project Location

September 2013

Notes: Base Map: ESRI Street Map North America, 2008.



White Pine Commerce Park

Town of Clay, Onondga County, New York

Figure 2: Project Site Topography

September 2013

Notes: USGS 7.5 - minute Brewerton topographic quadrangle.

Proposed Sewerline

Project Site

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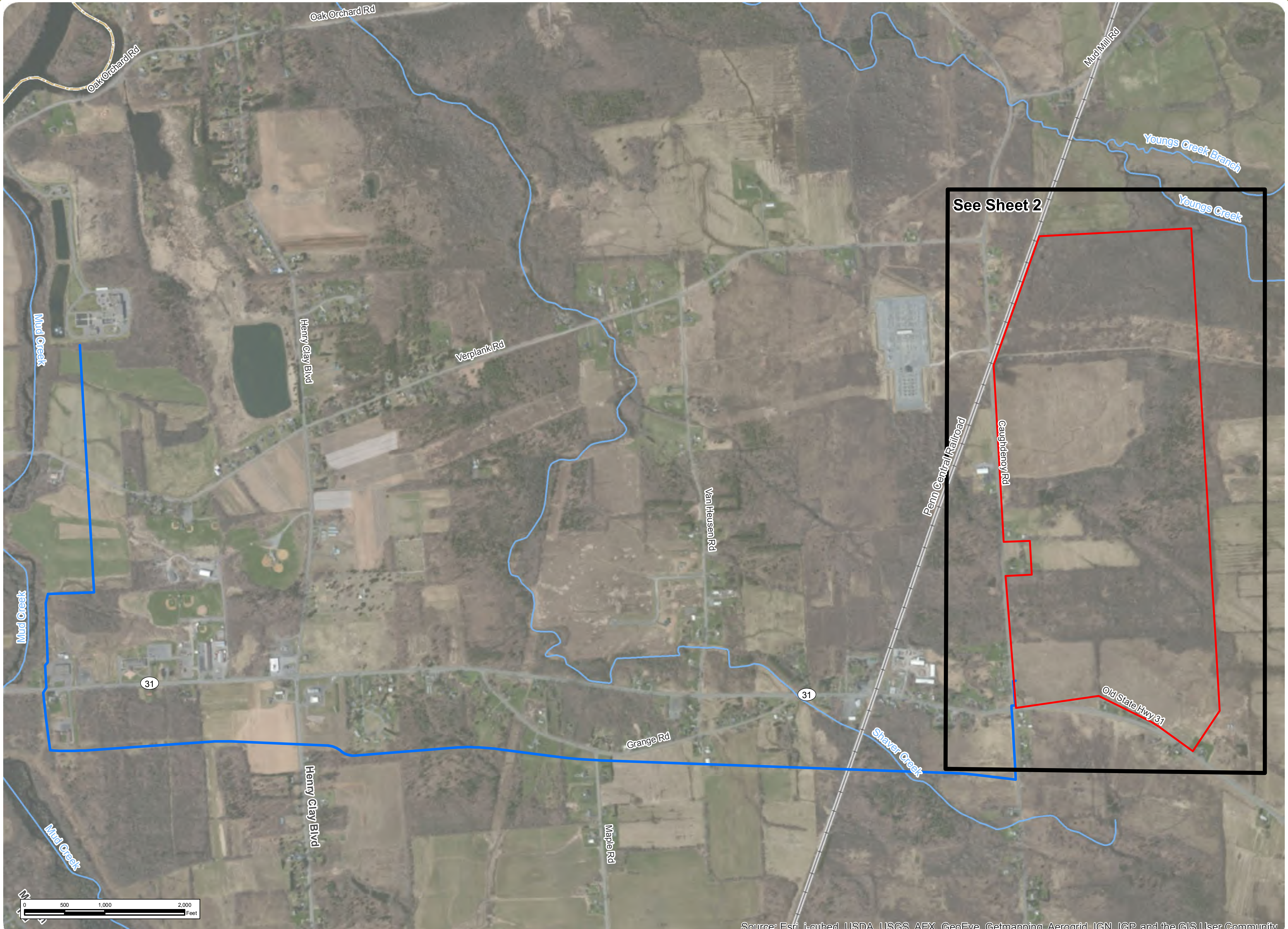

White Pine Commerce Park

Town of Clay,
Onondaga County, New York

Figure 3: Existing Conditions

Sheet 1: Project Site and Sewerline

September 2013

Proposed Sewerline
Project Site

Notes:
Base Map: ESRI World Imagery Map Service.

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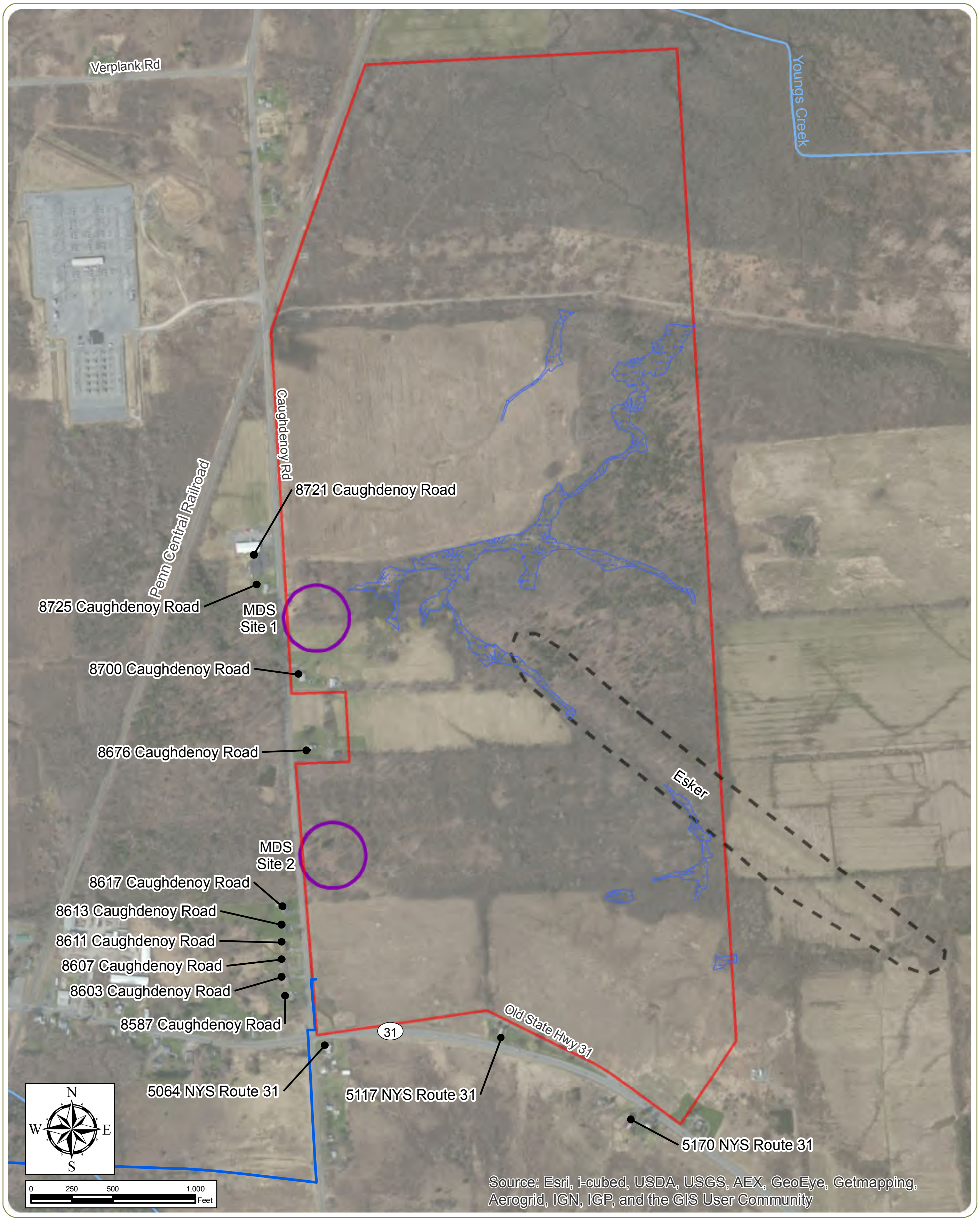

White Pine Commerce Park

Town of Clay, Onondaga County, NY

Figure 3: Existing Conditions

Sheet 2: Project Site Detail

September 2013

Notes: Base Map: ESRI World Imagery Map Service.

- Proposed Sewerline
- Project Site
- Map Documented Structure (MDS)
- Approximate Wetlands
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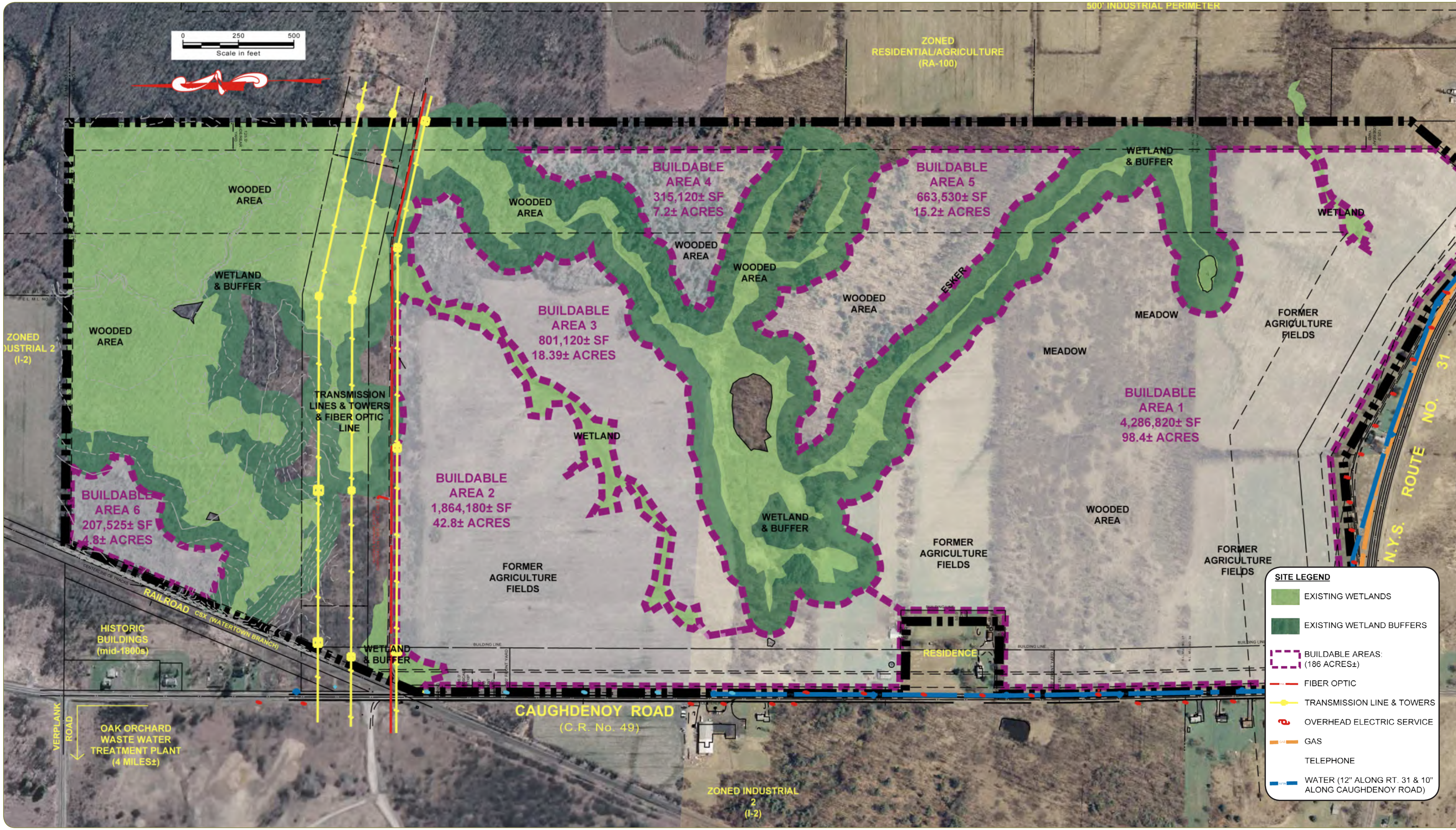

White Pine Commerce Park
Town of Clay, Onondaga County, New York

Figure 4: Proposed Project Plans

September 2013

Note: Reproduced from CHA, 2012 Draft Generic Environmental Impact Statement, Volume I: Clay Business Park. Figure 2.1-1: Existing Site Conditions.

Sheet 1 of 1

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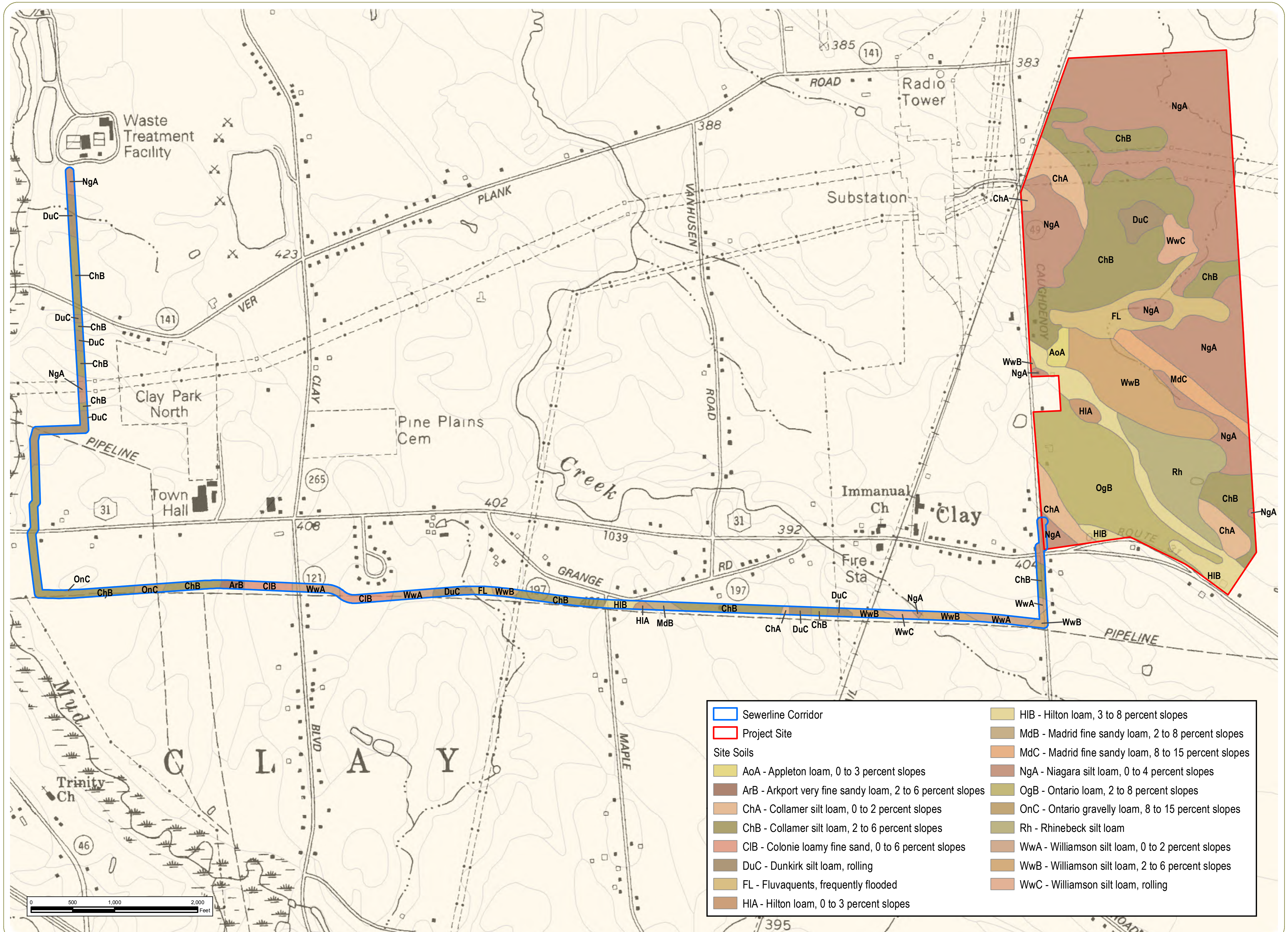
White Pine Commerce Park

Town of Clay,
Onondaga County, New York

Figure 5: Project Site Soils

September 2013



Notes:
Base Map: NYSDOT Planimetric 7.5-minute Brewerton quadrangle.

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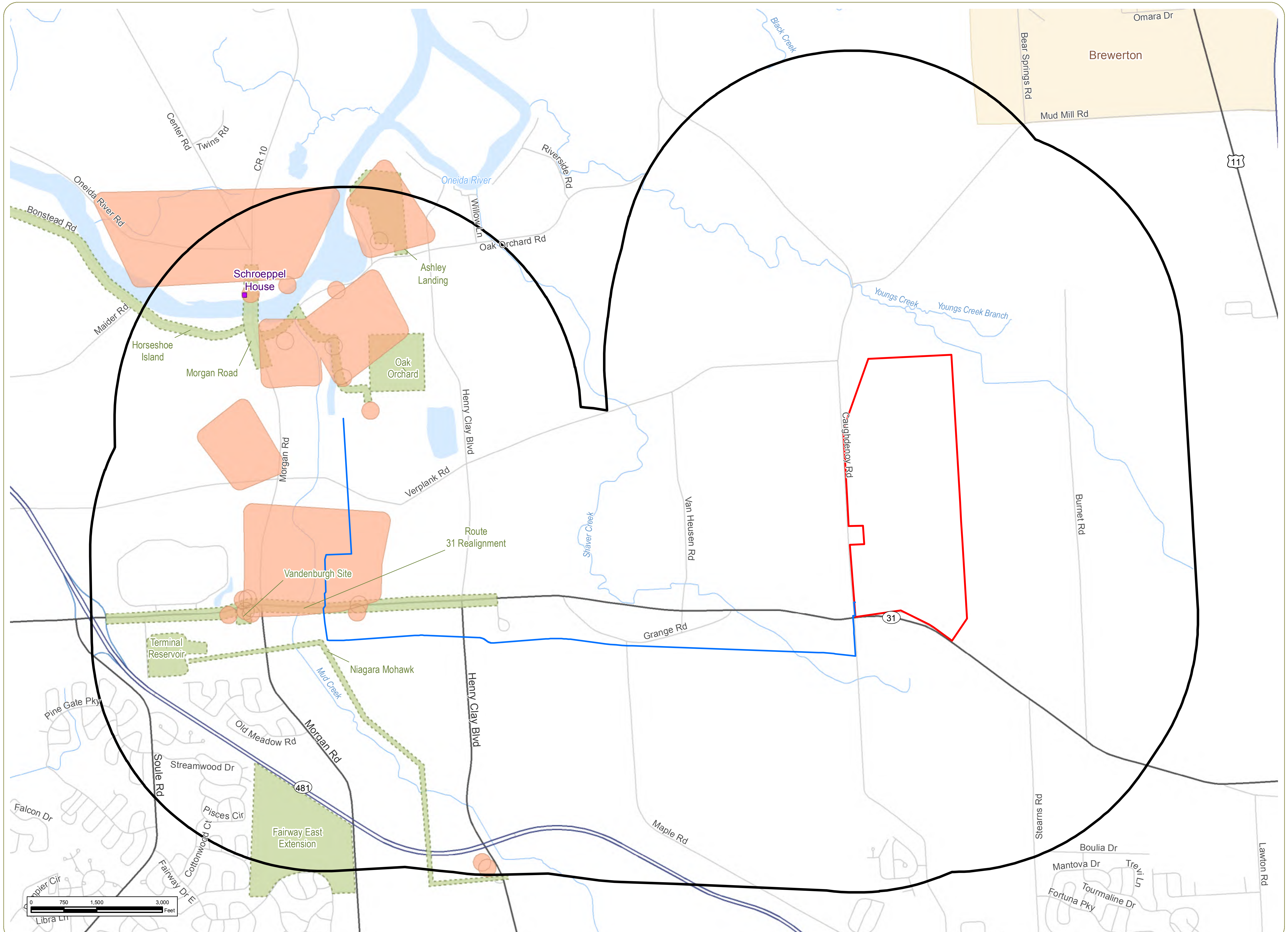

White Pine Commerce Park

Town of Clay,
Onondaga County, New York

Figure 6: Previously Identified Cultural Resources

September 2013

- Proposed Sewerline
- Project Site
- 1 Mile Study Area
- NRHP-Listed Site
- Archeological Site Areas
- Previous Cultural Resources Survey

Notes:
Base Map: ESRI Street Map North America, 2008.

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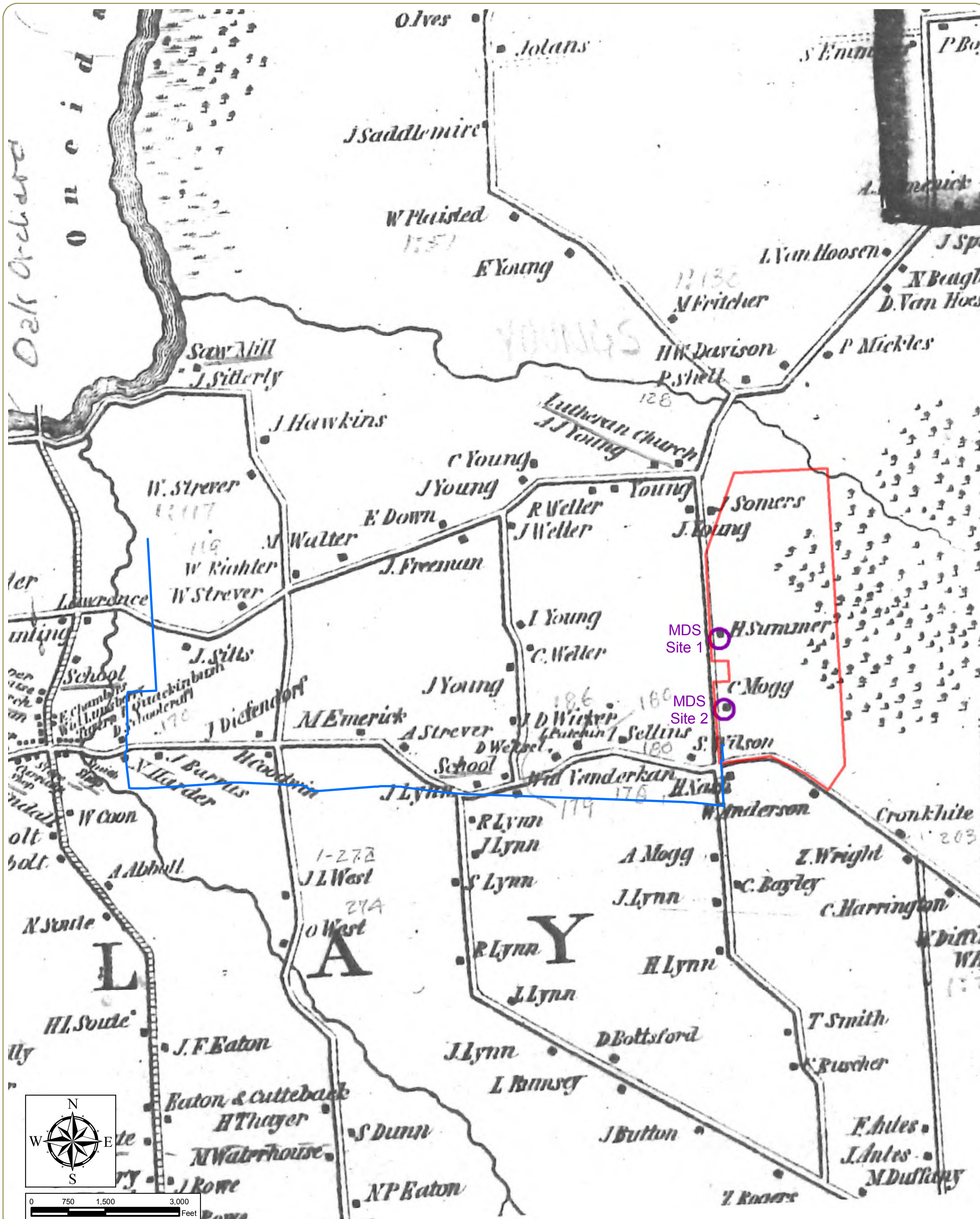

White Pine Commerce Park

Town of Clay, Onondaga County, New York

Figure 7: 1854 Town of Clay, NY Map

September 2013

Notes: Basemap: 1854 Town of Clay Map, Fagan.

Proposed Sewerline

Project Site

Map Documented Structure (MDS)

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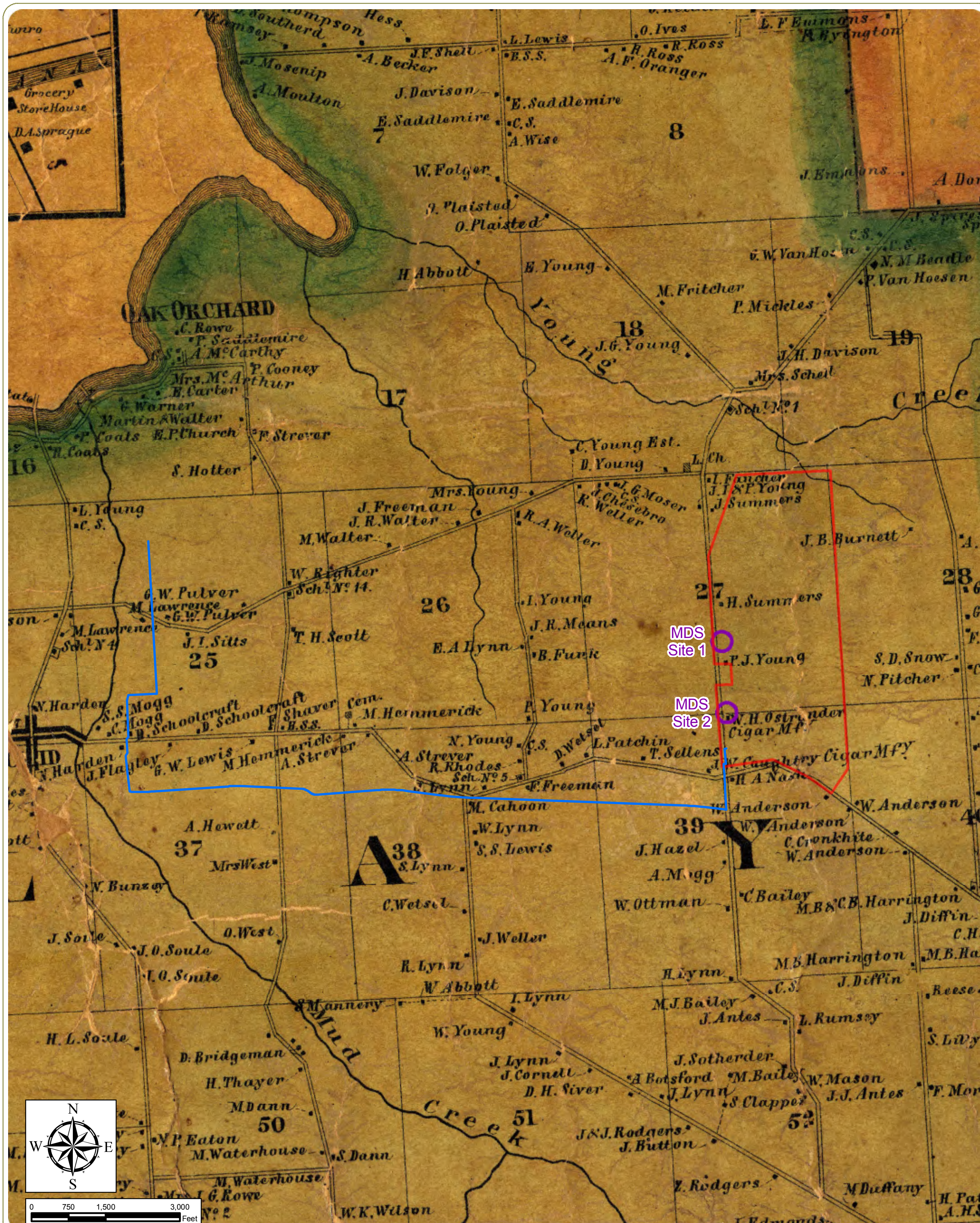

White Pine Commerce Park

Town of Clay, Onondaga County, New York

Figure 8: 1860 Map of Onondaga County, NY

September 2013

Notes: Basemap: 1860 Map of Onondaga County, NY, H.D.L. Sweet, A.R.Z. Dawson.

- Proposed Sewerline
- Project Site
- Map Documented Structure (MDS)

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White Pine Commerce Park

Town of Clay, Onondaga County, New York

Figure 9: 1874 Map of Onondaga County, NY

September 2013

Notes: Basemap: Sweet H. 1874 Atlas of Onondaga County, Clay Sheet.

- Proposed Sewerline
- Project Site
- Map Documented Structure (MDS)

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White Pine Commerce Park

Town of Clay, Onondaga County, New York

Figure 10: 1889 Map of Onondaga County, NY

September 2013

Notes: Basemap: Sweet H. 1889 Atlas of Onondaga County, Clay Sheet.

Proposed Sewerline

Project Site

Map Documented Structure (MDS)

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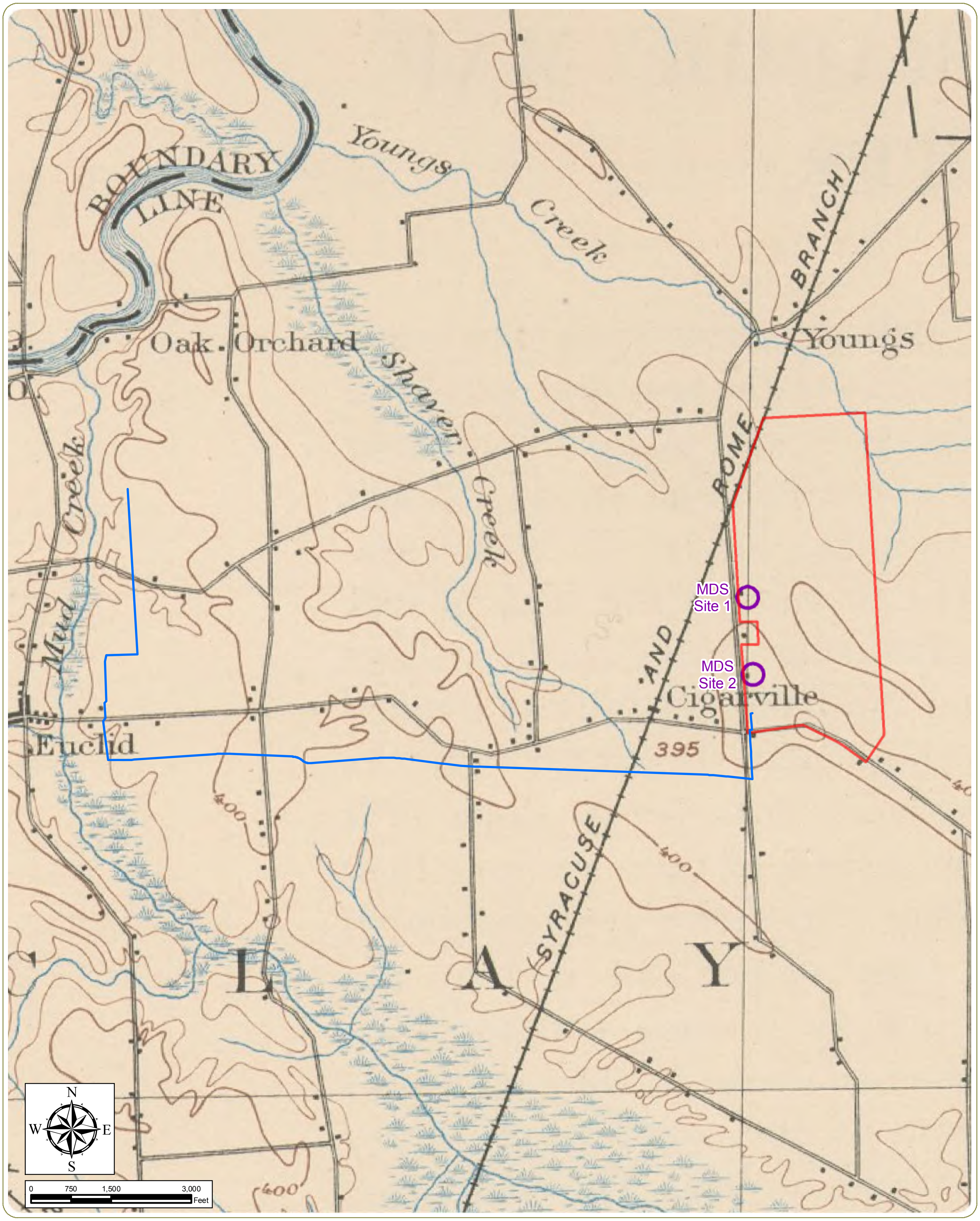

White Pine Commerce Park

Town of Clay, Onondaga County, New York

Figure 11: 1898 USGS Syracuse, NY Topographic Map

September 2013

Notes: Basemap: 1898 USGS 1:62,500 Topographic Quadrangle, Syracuse.

Proposed Sewerline

Project Site

Map Documented Structure (MDS)

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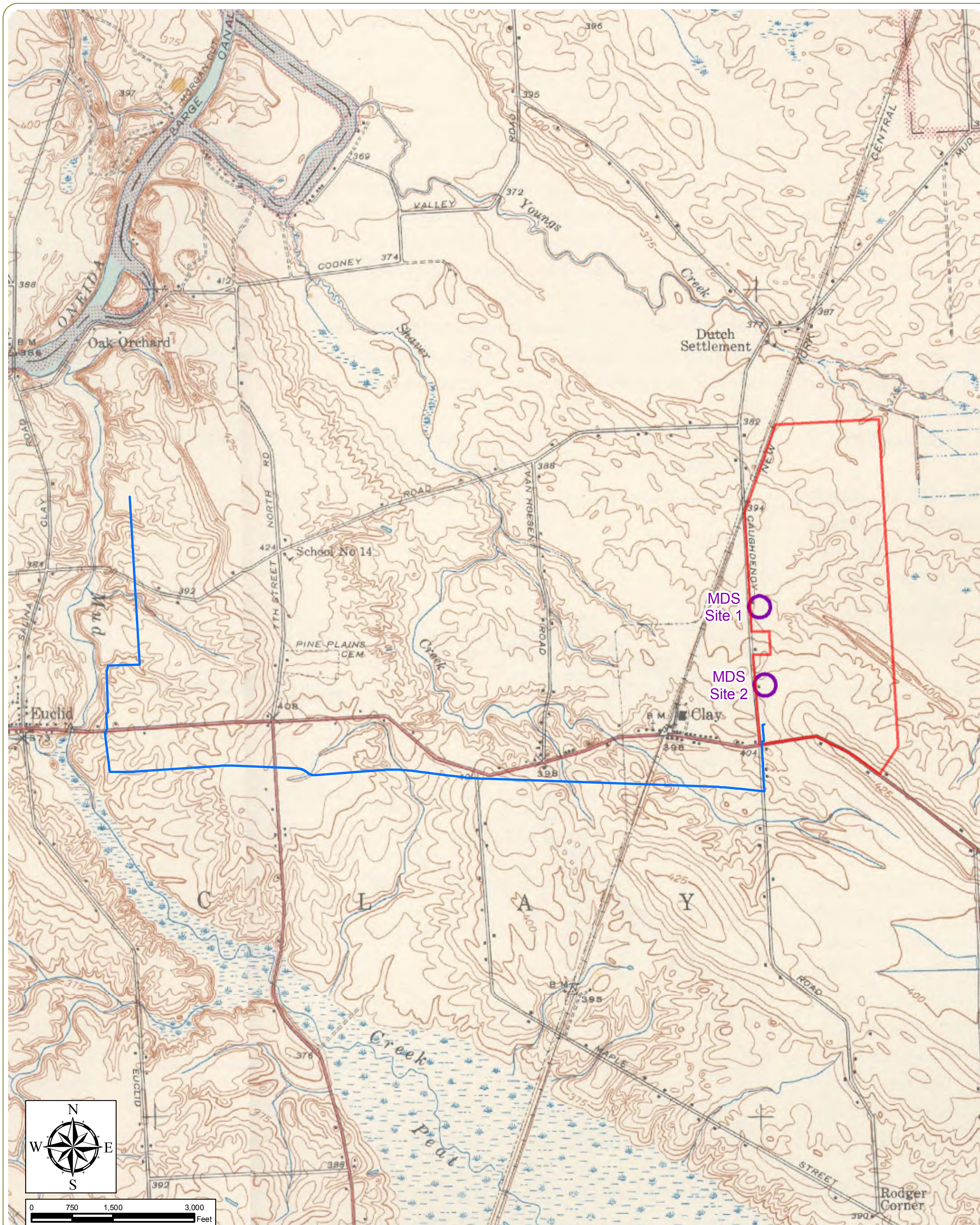

White Pine Commerce Park

Town of Clay, Onondaga County, New York

Figure 12: 1943 USGS Brewerton, NY Topographic Map

September 2013

Notes: Basemap: 1943 USGS 1:24,000 Topographic Quadrangle, Brewerton.

Proposed Sewerline

Project Site

Map Documented Structure (MDS)

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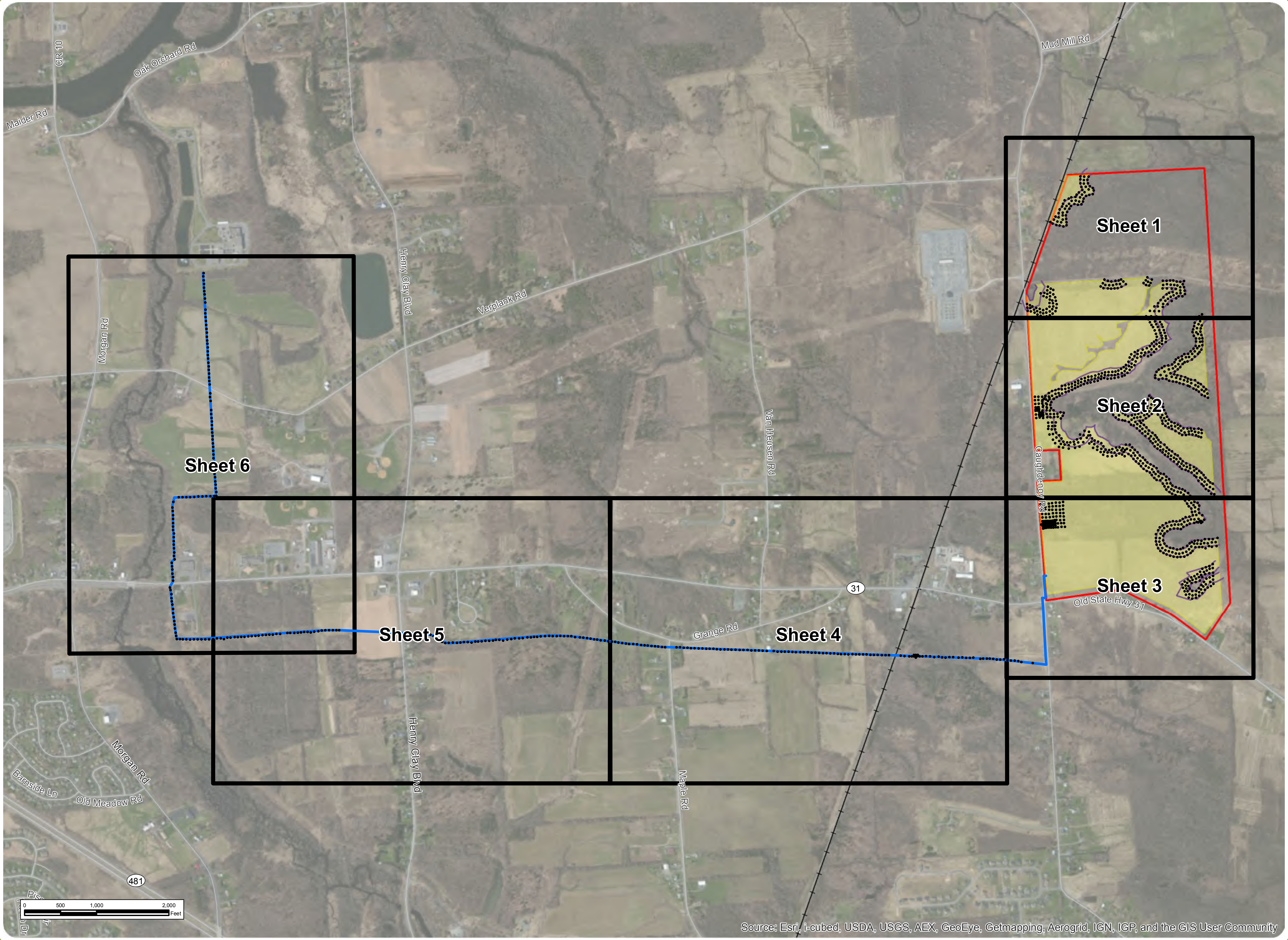

White Pine Commerce Park

Town of Clay,
Onondaga County, New York

Figure 13: Phase 1 Archeological Survey Map
Index Sheet

September 2013

- Shovel Test Location
- Proposed Sewerline
- Archeological Survey Area
- Buildable Area
- Project Site
- Sheet Index

Notes:
Basemap: ESRI World Imagery Map Service.

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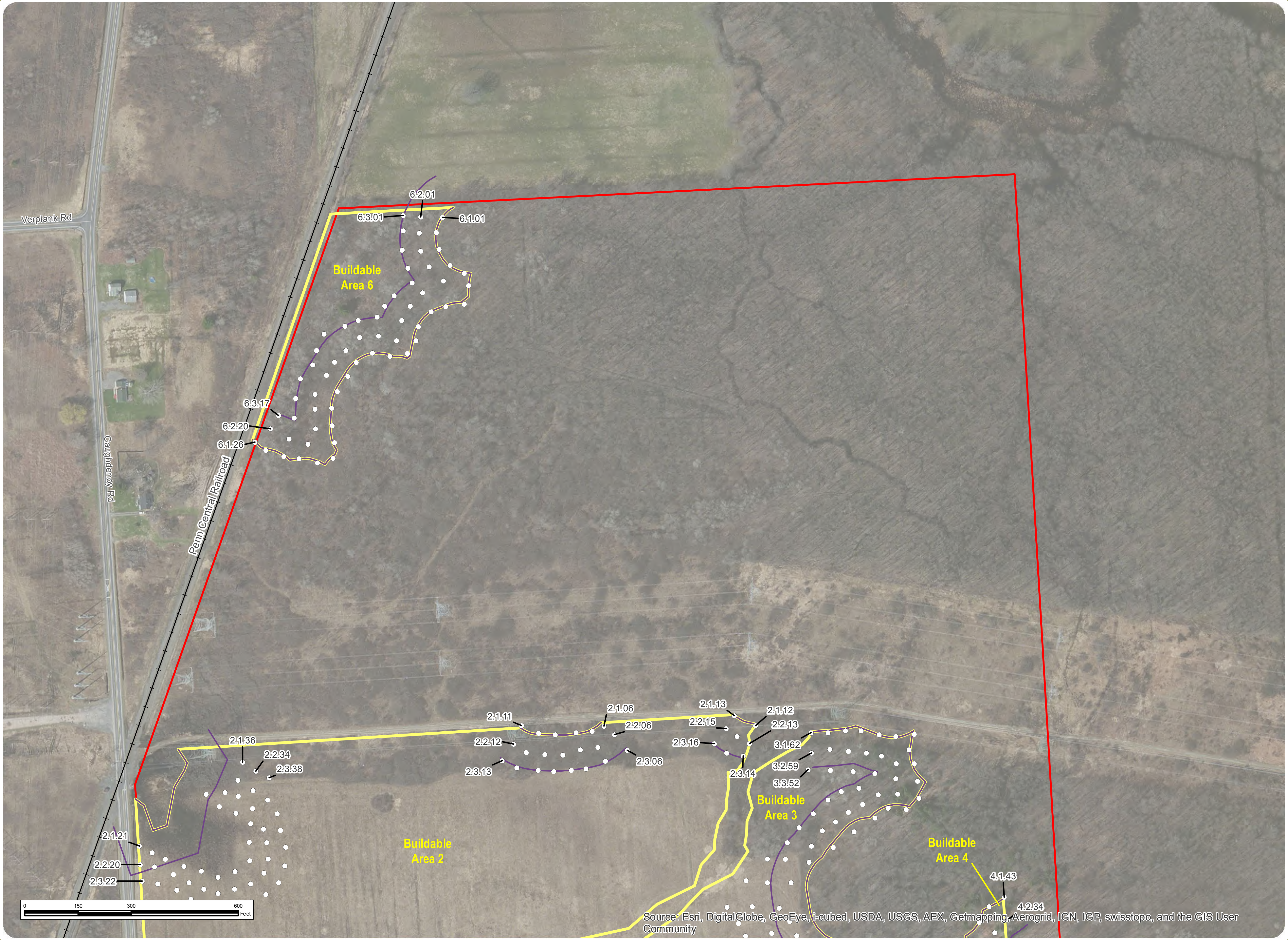

White Pine Commerce Park

Town of Clay,
Onondaga County, New York

Figure 13: Phase 1 Archeological Survey Map

Sheet 1 of 6

September 2013

Shovel Test Location
- Historic Material
- No Cultural Material
- MDS Site Shovel Test
- Proposed Sewerline
- Archeological Survey Area
- Buildable Area
- Project Site

Notes:
Basemap: ESRI World Imagery Map Service.

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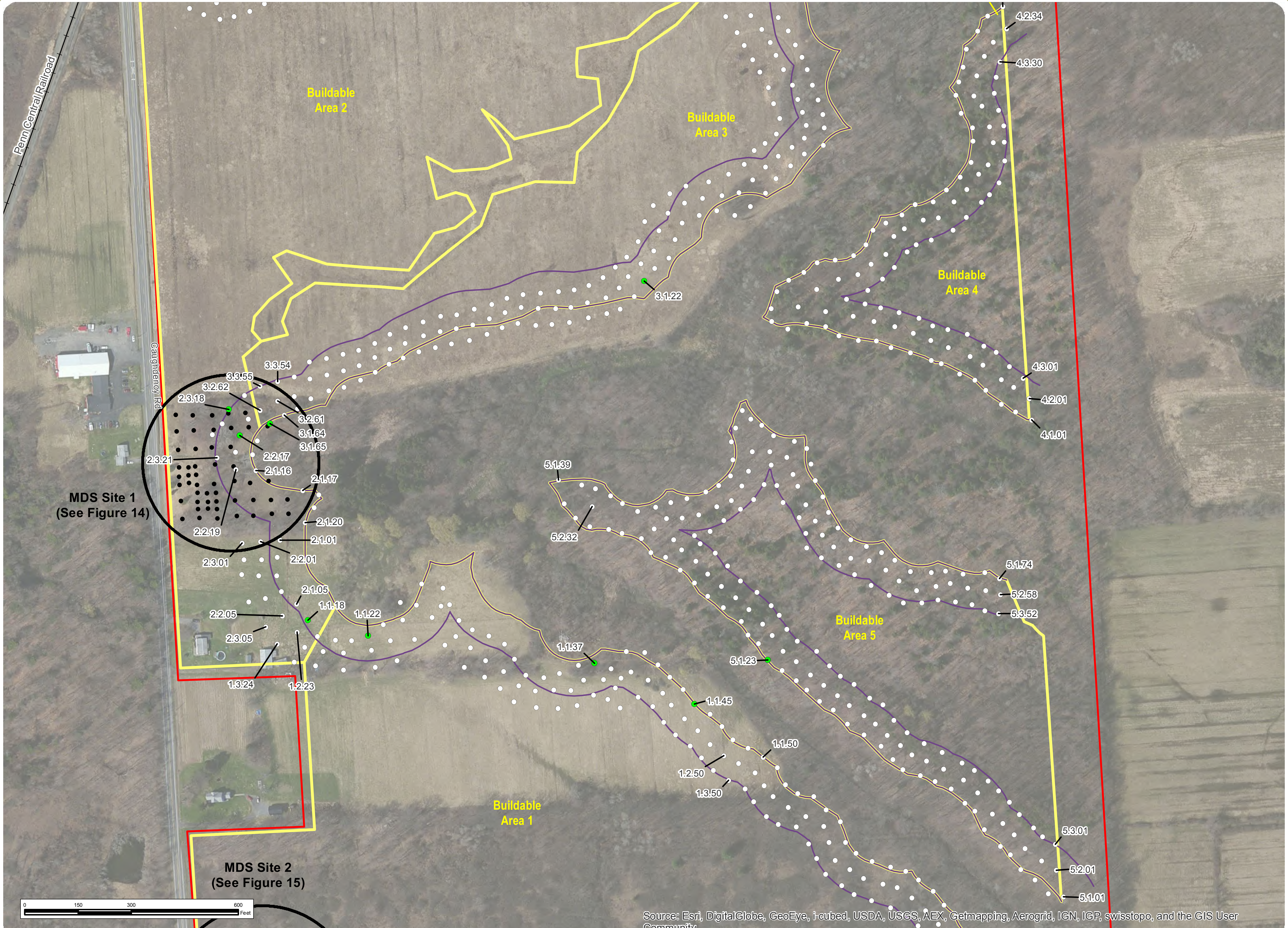

White Pine Commerce Park

Town of Clay,
Onondaga County, New York

Figure 13: Phase 1 Archeological Survey Map

Sheet 2 of 6

September 2013

Shovel Test Location

- Historic Material
- No Cultural Material
- MDS Site Shovel Test
- Proposed Sewerline
- Archeological Survey Area
- Buildable Area
- Project Site

Notes:
Basemap: ESRI World Imagery Map Service.

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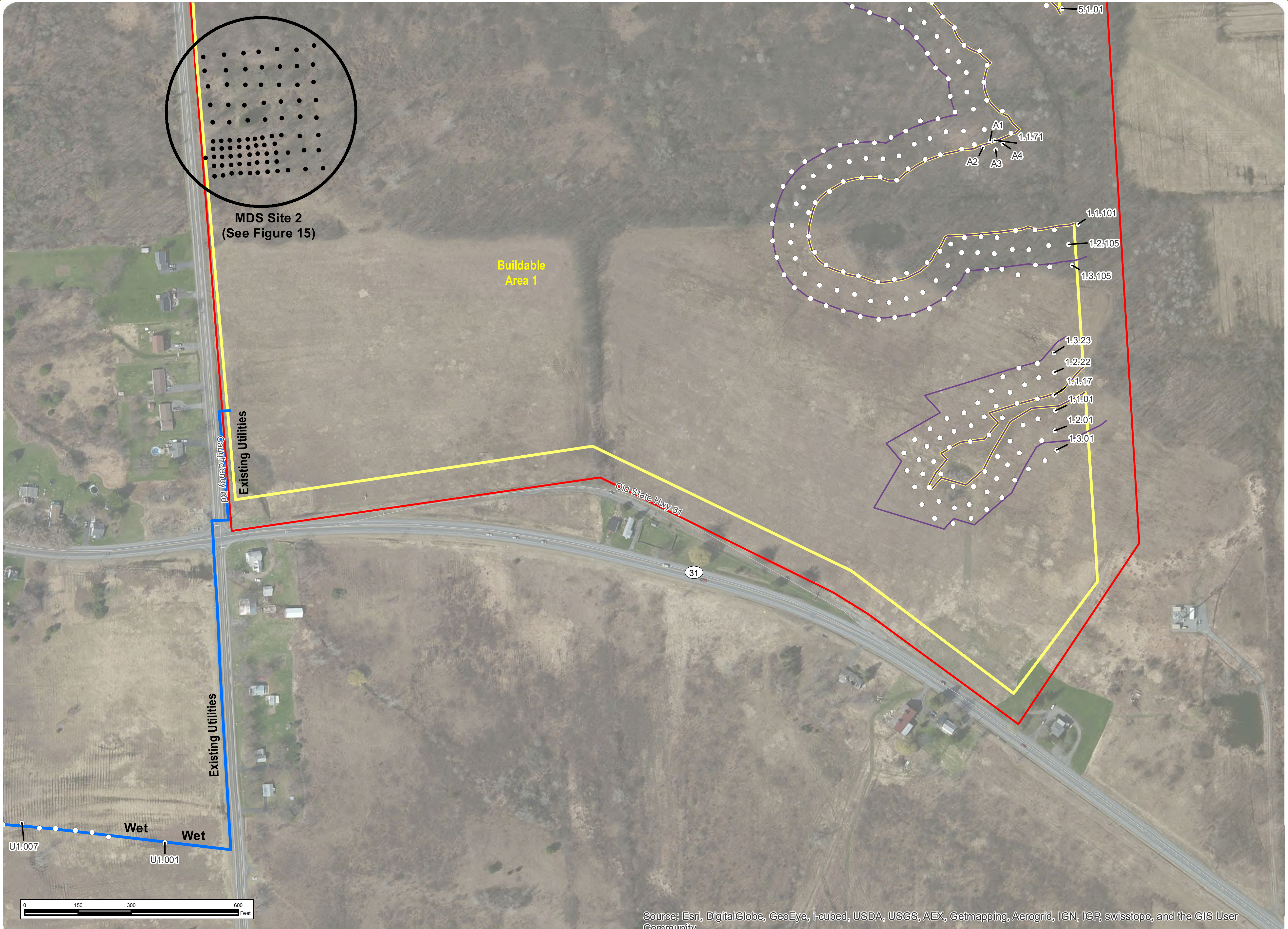

White Pine Commerce Park

Town of Clay,
Onondaga County, New York

Figure 13: Phase 1 Archeological Survey Map

Sheet 3 of 6

September 2013

Shovel Test Location

- Historic Material
- No Cultural Material
- MDS Site Shovel Test
- Proposed Sewerline
- Archeological Survey Area
- Buildable Area
- Project Site

Notes:
Basemap: ESRI World Imagery Map Service.

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White Pine Commerce Park

Town of Clay,
Onondaga County, New York

Figure 13: Phase 1 Archeological Survey Map

Sheet 4 of 6

September 2013

Shovel Test Location

- Historic Material
- No Cultural Material
- MDS Site Shovel Test
- Proposed Sewerline
- Archeological Survey Area
- Buildable Area
- Project Site

Notes:
Basemap: ESRI World Imagery Map Service.

White Pine Commerce Park

Town of Clay,
Onondaga County, New York

Figure 13: Phase 1 Archeological Survey Map

Sheet 5 of 6

September 2013

Shovel Test Location
- Historic Material
- No Cultural Material
- MDS Site Shovel Test
- Proposed Sewerline
- Archeological Survey Area
- Buildable Area
- Project Site

Notes:
Basemap: ESRI World Imagery Map Service.

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White Pine Commerce Park
Town of Clay, Onondaga County, New York

Figure 13: Phase 1 Archeological Survey Map
Sheet 6 of 6

September 2013

Notes: Basemap: ESRI World Imagery Map Service.

Proposed Sewerline
Project Site
Shovel Test Location
Historic Material
No Cultural Material
MDS Site Shovel Tests

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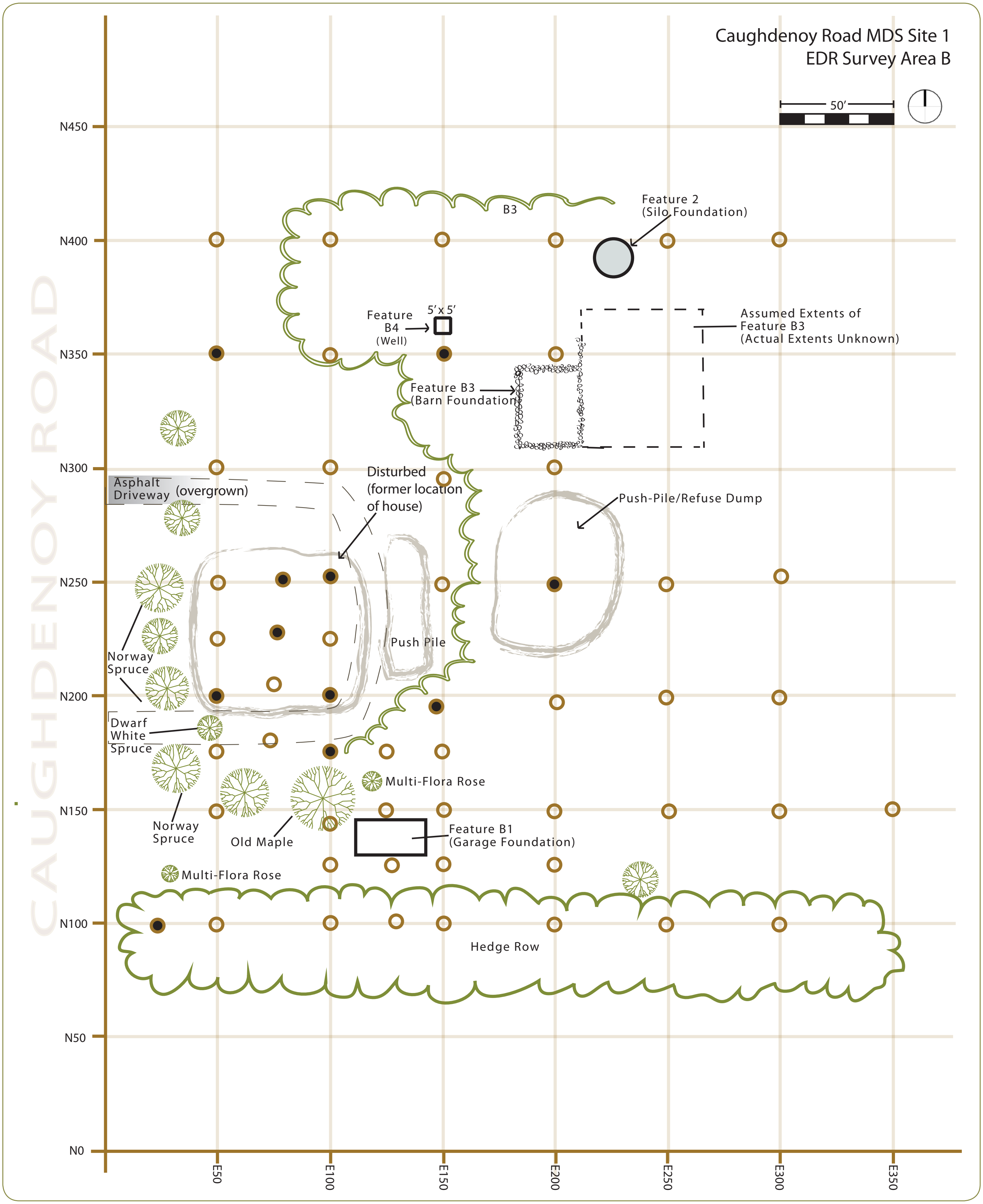

White Pine Commerce Park
Town of Clay, Onondaga County, New York

Figure 14: Plan Map of Caughdenoy Road MDS Site 1

September 2013

Shovel Tests
- No Cultural Material (NCM)
- Historical Artifacts
- Fieldstone Feature
- Poured Concrete Feature
- Ornamental Vegetation/Shaded Trees

Sheet 1 of 1

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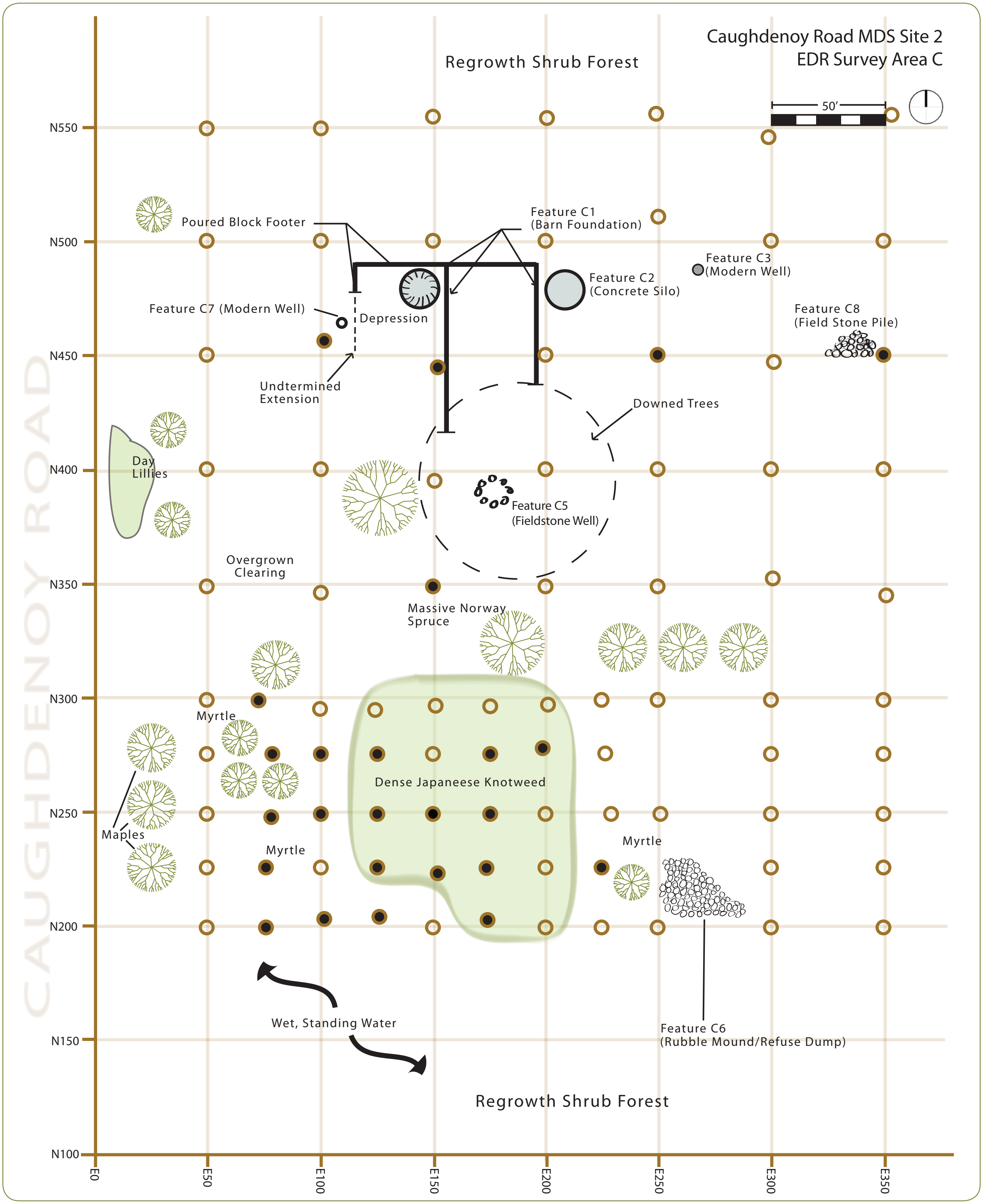

White Pine Commerce Park

Town of Clay, Onondaga County, New York

Figure 15: Plan Map of Caughdenoy Road MDS Site 2

September 2013

Shovel Tests

- No Cultural Material (NCM)
- Historical Artifacts
- Fieldstone Feature
- Poured Concrete Feature
- Ornamental Vegetation/Shaded Trees

Sheet 1 of 1

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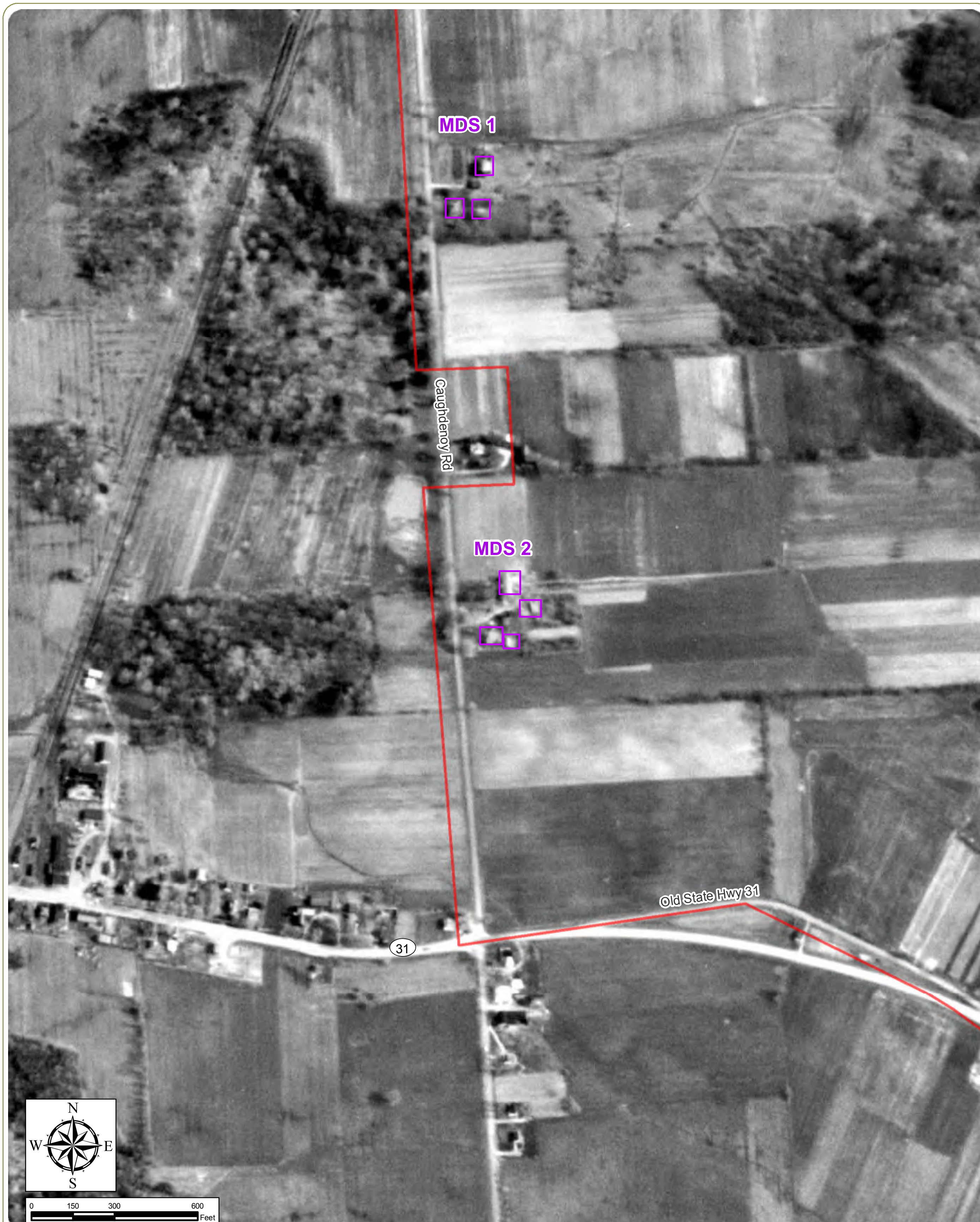

White Pine Commerce Park

Town of Clay, Onondaga County, New York

Figure 16: Historic Aerial Imagery (1956)
Depicting Caughdenoy Road MDS 1 & MDS 2

Probable Structure

Project Site

Notes: Basemap: 1956 aerial imagery.

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White Pine Commerce Park

Town of Clay, Onondaga County, New York

Figure 17: Historic Aerial Imagery (1972)
Depicting Caughdenoy Road MDS 1 & MDS 2

Notes: Basemap: 1972 aerial imagery.

Probable Structure

Project Site

September 2013

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Appendix A:

Photographs

Photo 01

Southern portion of the Project site from NYS Route 31, view to the north.

Photo 02

Southern portion of the Project site from NYS Route 31, view to the north.

Photo 03

Southern portion of the Project site from Caughdenoy Road, view to the north-northeast.

Photo 04

Northern portion of the Project site from Caughdenoy Road, view to the east.

Photo 05

Northern portion of the Project site from Caughdenoy Road, view to the northeast.

Photo 06

CSX Railroad tracks along the northwestern perimeter of the Project site, view to the northeast.

Photo 07

NYPA transmission line and right-of-way within the northern portion of the Project site, view to the east.

Photo 08

NYPA transmission line and CSX Railroad crossing Caughdenoy Road, view to the north.

Photo 09

Location of MDS Site 1 within the Project site; view to the east.

Photo 10

Location of MDS Site 2 within the Project site; view to the east.

Photo 11

8700 Caughdenoy Road (within the Project site).

Photo 12

8676 Caughdenoy Road.

Photo 13

8721 Caughdenoy Road (Jerome Fire Equipment Co., Inc.).

Photo 14

8725 Caughdenoy Road.

Photo 15

8613, 8617 Caughdenoy Road.

Photo 16

8611 Caughdenoy Road.

Photo 17

8607 Caughdenoy Road.

Photo 18

8587, 8603 Caughdenoy Road.

Photo 19

5064 NYS Route 31.

Photo 20

5117 NYS Route 31.

Photo 21

5117 NYS Route 31, associated garage.

Photo 22

5170 NYS Route 31.

Photo 23

5170 NYS Route 31, associated barn.

Photo 24

Proposed area of road improvements along Caughdenoy Road between Verplank Road and Mud Mill Road, view to the north.

Photo 25

Proposed sewer line route, west side of Caughdenoy Road, view to the north.

Photo 26

Proposed sewer line route, east side of Caughdenoy Road, view to the north.

Photo 27

Proposed sewer line route, east side of Caughdenoy Road, view to the north.

Photo 28

Proposed sewer line route, east side of Caughdenoy Road, view to the north.

Photo 29

Proposed sewer line route, west side of Caughdenoy Road, view to the north.

Photo 30

Proposed sewer line route, east side of Caughdenoy Road, view to the north.

Photo 31

Proposed sewer line route, west side of Caughdenoy Road, view to the north.

Photo 32

Proposed sewer line route adjacent to existing water line from Caughdenoy Road, view to the west.

Photo 33

Proposed sewer line route adjacent to existing water line from Grange Road, view to the southeast.

Photo 34

Proposed sewer line route adjacent to existing water line from Maple Road, view to the east.

Photo 35

Proposed sewer line route adjacent to existing water line from Maple Road, view to the west.

Photo 36

Proposed sewer line route adjacent to existing water line from Henry Clay Boulevard, view to the east.

Photo 37

Proposed sewer line route adjacent to existing water line from Henry Clay Boulevard, view to the west.

Photo 38

Proposed sewer line route adjacent to existing water line from NYS Route 31, view to the south.

Photo 39

Proposed sewer line route adjacent to existing water line from NYS Route 31, view to the north.

Photo 40

Proposed sewer line route adjacent to existing water line from Verplank Road, view to the south.

Photo 41

Proposed sewer line route adjacent to existing water line from Verplank Road, view to the north.

Photo 42

View within Project site Area 1, depicting conditions east of 8664 Caughdenoy Road. View to the west.

Photo 43

View within Project site Area 1, with EDR personnel completing shovel tests near tree line. View to the east.

Photo 44

View within Project site Area 1, with EDR personnel completing shovel tests. View to the southeast.

Photo 45

View within Project site Area 1, depicting conditions east of 8676 Caughdenoy Road (with structures visible in background). View to the west.

Photo 46

View of field and forested area within Project site Area 1, with EDR personnel completing shovel tests. View to the north.

Photo 47

View within Project site Area 2, depicting conditions along existing transmission line corridor. View to the southeast.

Photo 48

View within Project site Area 2, depicting conditions along existing transmission line corridor. View to the southwest.

Photo 49

View within Project site Area 2, depicting conditions near Caughdenoy Road, junction of CSX railroad crossing, and transmission access road. View to the northwest.

Photo 50

View within Project site Area 2, depicting conditions east of Caughdenoy Road (adjacent to Caughdenoy Road MDS 1 & abandoned driveway). View to the west.

Photo 51

View within Project site Area 2, depicting conditions east of Caughdenoy Road (adjacent to Caughdenoy Road MDS 1). View to the southeast.

Photo 52

View between Project site Areas 2 & 3, depicting conditions south of wooded area bordering transmission line corridor. View to the north.

Photo 53

View between Project site Areas 2 & 3, depicting conditions along border between wooded area and open field. View to the southeast.

Photo 54

View within Project site Area 3, depicting conditions within dense wooded area. View to the north.

Photo 55

View within Project site Area 4, depicting conditions within dense wooded area. View to the north.

Photo 56

View within Project site Area 4, depicting conditions within open wooded area. View to the northwest.

Photo 57

View within Project site Area 4, depicting conditions within dense wooded area. View to the west.

Photo 58

View within Project site Area 4, depicting conditions within open wooded area. View to the northwest.

Photo 59

View within Project site Area 5, depicting conditions within open wooded area along esker. View to the south.

Photo 60

View within Project site Area 5, depicting conditions within wooded area along esker. View to the northwest.

Photo 61

View within Project site Area 5, depicting conditions within wooded area along esker. View to the southeast.

Photo 62

View within Project site Area 5, depicting conditions within wooded area along esker. View to the east.

Photo 63

View within Project site Area 6, depicting conditions within dense wooded area. View to the northwest.

Photo 64

View within Project site Area 6, depicting conditions within dense wooded area. View to the west.

Photo 65

View within Project site Area 6, depicting conditions within dense wooded area. View to the southeast.

Photo 66

View along sewer line route, depicting conditions adjacent to wetland. View to the west.

Photo 67

View along sewer line route, depicting wetland conditions. View to the southwest.

Photo 68

View along sewer line route, depicting marked-out gas line along eastern edge of Maple Road. View to the south.

Photo 69

View along sewer line route, depicting marked-out buried telecommunications line along western edge of Henry Clay Boulevard. View to the north.

Photo 70

EDR personnel conducting pedestrian survey along sewer line in agricultural field west of Henry Clay Boulevard. View to the east.

Photo 71

View along sewer line route, depicting buried gas line running north-south across sewer line route. View to the north.

Photo 72

View along sewer line route, depicting built conditions near to NY State Route 31. View to the north.

Photo 73

View along sewer line route, depicting buried gas line running east-west across sewer line route. View to the west.

Photo 74

View along sewer line route, depicting marked-out buried telecommunications line along southern edge of Verplanck Road. View to the east.

Photo 75

View of former house site at Caughdenoy Road MDS 1. View to the east.

Photo 76

View of former house site- Caughdenoy Road MDS 1. View to the south.

Photo 77

View of former garage/carport foundation (Feature B1) located within Caughdenoy Road MDS 1. View to the southeast.

Photo 78

View of concrete foundation of a silo (Feature B2) within Caughdenoy Road MDS 1. View to the east.

Photo 79

View of fieldstone/concrete foundation segment (Feature B3) of probable barn located within Caughdenoy Road MDS 1. View to the east.

Photo 80

Detail of fieldstone/concrete barn foundation (Feature B3) within Caughdenoy Road MDS 1. View to the south.

Photo 81

Detail view of concrete block-lined well or cistern (Feature B4), with corrugated sheet metal cover, located within Caughdenoy Road MDS 1.

Photo 82

Detail of push-pile and refuse mound located east of former house site at Caughdenoy Road MDS 1. View to the northeast.

Photo 83

View of former house site at Caughdenoy Road MDS 2. View to the east.

Photo 84

View of dense Japanese knot-weed growth in area of former house site within Caughdenoy Road MDS 2. View to the west.

Photo 85

View of barn foundation (Feature C1) and depression at Caughdenoy Road MDS 2. View to the southwest.

Photo 86

View of barn foundation (Feature C1) and depression at Caughdenoy Road MDS 2. View to the northeast.

Photo 87

View of barn foundation (Feature C1) at Caughdenoy Road MDS 2. View to the southeast.

Photo 88

View of barn foundation (Feature C1) at Caughdenoy Road MDS 2. View to the southeast.

Photo 89

View of concrete silo (Feature C2) at Caughdenoy Road MDS 2. View to the south.

Photo 90

View of modern well (Feature C3) east of barn foundation at Caughdenoy Road MDS 2. View to the north.

Photo 91

Detail of dry-laid, stone-lined well (Feature C4) located along northern edge of Japanese knotweed growth within Caughdenoy Road MDS 2.

Photo 92

View of dry-laid, debris-filled fieldstone well (Feature C5) south of barn foundation at Caughdenoy Road MDS 2. View to the north.

Photo 93

View of rubble mound (Feature C6) located within former house site at Caughdenoy Road MDS 2. View to the southwest.

Photo 94

View of rubble mound (Feature C6) located within former house site at Caughdenoy Road MDS 2. View to the southeast.

Photo 95

Detail of bottles and jars located among rubble mound (Feature C6) at Caughdenoy Road MDS 2.

Photo 96

View of modern well (Feature C7) west of barn foundation at Caughdenoy Road MDS 2. View to the southwest.

Photo 97

View of field stone pile (Feature C8) at Caughdenoy Road MDS 2. View to the east.

Photo 98

Representative selection of ceramic artifacts recovered from the archeological survey of Caughdenoy Road MDS 1.

Photo 99

Representative selection of metal artifacts recovered from the archeological survey of Caughdenoy Road MDS 1.

Photo 100

Additional representative selection of metal artifacts recovered from the archeological survey of Caughdenoy Road MDS 1.

Photo 101

Representative selection of glass artifacts recovered the archeological survey of Caughdenoy Road MDS 1.

Photo 102

Representative selection of bone/osteological remains recovered the archeological survey of Caughdenoy Road MDS 1.

Photo 103

Representative selection of other miscellaneous cultural materials recovered the archeological survey of Caughdenoy Road MDS 1. Pictured: roofing shingle, brick fragment, coal ash, modern plastic.

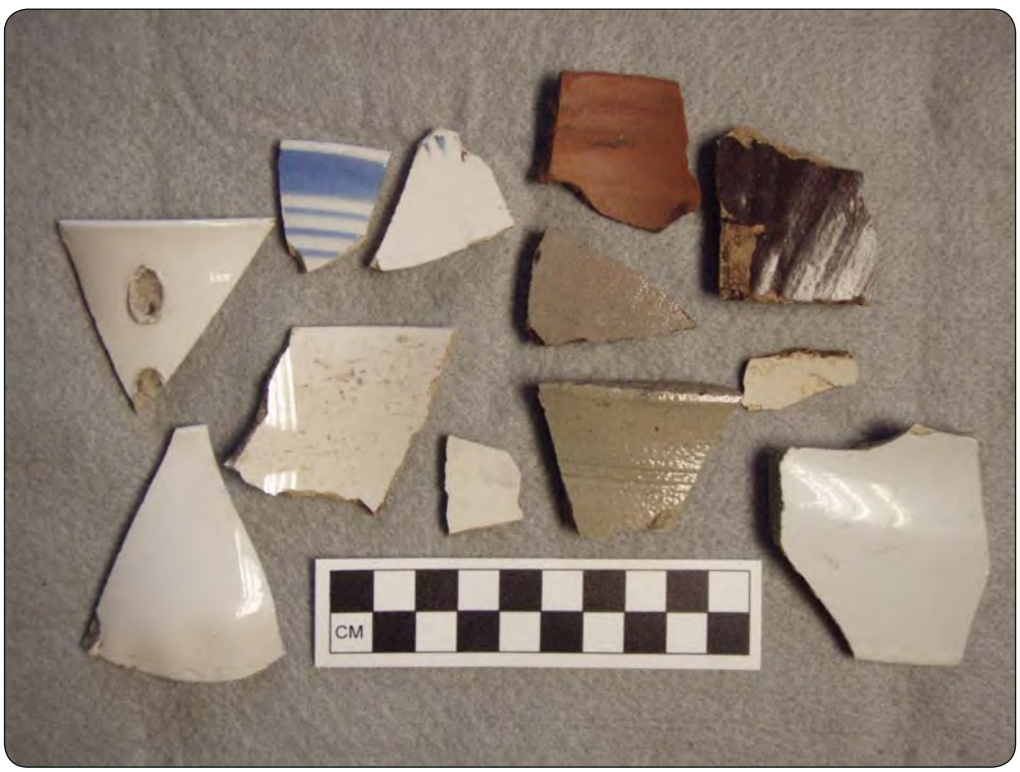


Photo 104

Representative selection of ceramic artifacts recovered the archeological survey of Caughdenoy Road MDS 2.

Photo 105

Representative selection of glass artifacts recovered the archeological survey of Caughdenoy Road MDS 2.

Photo 106

Representative selection of coal and coal ash recovered the archeological survey of Caughdenoy Road MDS 2.

Photo 107

Representative selection of architectural metal artifacts recovered the archeological survey of Caughdenoy Road MDS 2.

Photo 108

Representative selection of miscellaneous other metal artifacts recovered from the archeological survey of Caughdenoy Road MDS 2. Pictured: 12-gauge shotgun cartridge, hose clamp, .22 caliber bullet casing, button, coated signage, and other fragments.

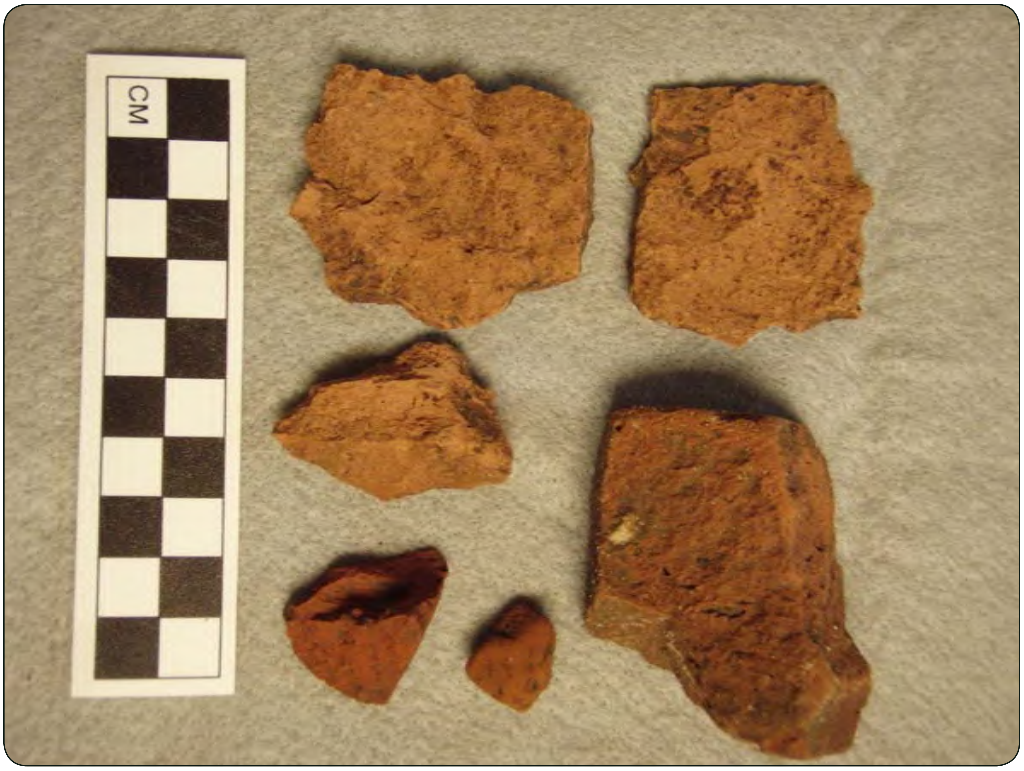


Photo 109

Representative selection of brick fragments recovered from shovel testing from the archeological survey of Caughdenoy Road MDS 2.

Photo 110

Representative selection of other architectural materials recovered from the archeological survey of Caughdenoy Road MDS 2. Pictured: stone slab with mortar, previously attached to larger architectural stone.

Photo 111

Representative selection of other architectural materials recovered from the archeological survey of Caughdenoy Road MDS 2. Pictured: brick fragments with large mortar fragment.

Photo 112

Representative selection of miscellaneous artifacts recovered from the archeological survey of Caughdenoy Road MDS 2.

Appendix B:

NYSOPRHP Correspondence

0n0O2 - 23854
5/12/98 SHPO Response to Lead Agency
C

OF PARKS · RECREATION · HISTORIC PRESERVATION
NEW YORK STATE

New York State Office of Parks, Recreation and Historic Preservation
Historic Preservation Field Services Bureau
Peebles Island, PO Box 189, Waterford, New York 12188-0189 518-237-8643

Bernadette Castro
Commissioner

May 12, 1998

Kristine R. Such
Permit Coordinator
Governor's Office of Regulatory Reform
17th Floor, A.E. Smith Building
PO Box 7027
Albany, NY 12225

Dear Ms. Such:

RE: ESDC
Chip Fab 98 - 255 Acre Parcel
Intersection of Rt 31 & Caughdenoy
Clay, Onondaga County
98PR0600

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.

Based upon this review, it is the SHPO's opinion that your project will have No Effect upon cultural resources in or eligible for inclusion in the National Register of Historic Places.

If further correspondence is required regarding this project, please be sure to refer to the OPRHP Project Review (PR) number noted above.

Sincerely,

Ruth L. Pierpont

Ruth L. Pierpont
Director, Historic Preservation
Field Services Bureau

RLP:rma

Enclosure/Master Application Response Form
cc: Donald J. Western

Governor's Office of Regulatory Reform
Alfred E. Smith Office Building
P.O. Box 7027, 17th Floor
Albany, New York 12225

MASTER APPLICATION -- RESPONSE FORM

NEY

Instructions: Please complete this form and return it to the above address along with a list of required permits, permit application forms and a list of permit fees, if any. The Governor's Office of Regulatory Reform must receive this official response within fifteen (15) business days of your agency's receipt of the Master Application.

Agency Name & Address

**NYS Office of Parks, Recreation & Historic Preservation
Peebles Island State Park
Waterford, NY 12188**

The above listed agency has reviewed the Master Application Project Information Form for:

Town of Clay — 98030433

Company Name — MAP Number

'ased upon the information received to date, it is determined that:

✓ __NO PERMITS ARE REQUIRED__ by this agency for this project.

___ __PERMITS ARE REQUIRED__ by this agency for this project. A list identifying the permits and stating the related fees is attached. The required permit application(s) is/are attached.

___ __NO PERMITS ARE REQUIRED__ but informational materials are enclosed.

Bob Kuhn
Name (type or print)

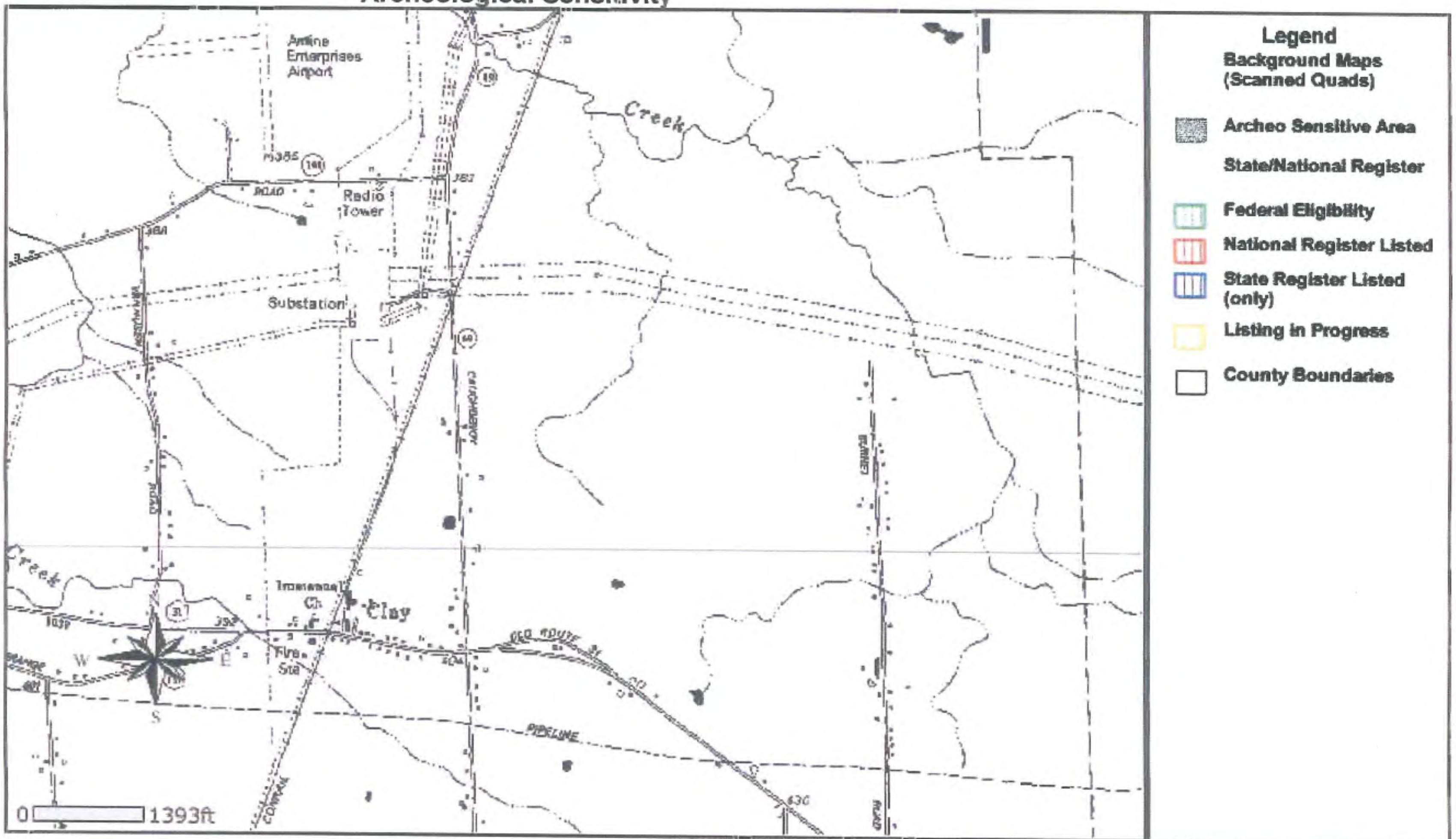
Robert Kuhn
Signature

Historic Preservation Program Coordinator
Title

5/11/98
Date

237-8643 x 255
'elephone Number

Clay Business Park - Archeological Sensitivity



March 24, 2010

Disclaimer: This map was prepared by the New York State Parks, Recreation and Historic Preservation National Register Listing Internet Application. The information was compiled using the most current data available. It is deemed accurate, but is not guaranteed.

letter of transmittal

To:	Nancy Herter	**edr Project No:**	12062
Company:	New York State Office of Parks, Recreation & Historic Preservation P.O. Box 189 Waterford, NY 12188-0189		
From:	Patrick J. Heaton, RPA		
Date:	September 19, 2012		
RE:	Clay Business Park (Town of Clay, Onondaga County) SHPO Project Review Request Phase 1A Cultural Resources Survey		
We are sending:	Attached		
Sent VIA:	USPS		

Comments:

On behalf of CHA and the Onondaga County Industrial Development Agency (OCIDA), **edr** Companies (**edr**) prepared the enclosed Project Review Cover Form and Phase 1A Cultural Resources Survey for the proposed Clay Business Park Project, located in the Town of Clay, in Onondaga County, New York. If you have any questions or require additional information, please contact Patrick Heaton at pheaton@edrcompanies.com or (315) 471-0688.

Copies To: W. Kalina (CHA – via email); file

If enclosures are not as indicated, kindly notify us.

NEW YORK STATE · OFFICE OF PARKS · RECREATION · HISTORIC PRESERVATION

New York State Office of Parks, Recreation and Historic Preservation

Historic Preservation Field Services Bureau • Peebles Island, PO Box 189, Waterford, New York 12188-0189
518-237-8643
www.nysparks.com

Andrew M. Cuomo
Governor

Rose Harvey
Commissioner

16 October 2012

Mr. Patrick Heaton
edr Companies
217 Montgomery Street
Syracuse, NY 13202

Re: CORPS PERMITS
Clay Business Park
Town of Clay, Onondaga County
12PR04065

Dear Mr. Heaton:

The State Historic Preservation Office (SHPO) has reviewed the information submitted for this project (*Phase 1A Cultural Resources Survey, Clay Business Park, Town of Clay, Onondaga County, New York*; dated September 2012, prepared by edr Companies). Our review has been in accordance with Section 106 of the National Historic Preservation Act and relevant implementing regulations.

Thank you for submitting this report. SHPO has the following comments regarding the report's contents and recommendations.

1. SHPO does not concur with the report's recommendation regarding the exclusion of much of the project's Area of Potential Effects (APE) from archaeological testing based on the interpretation that due to relatively poor drainage much of the area has a low potential for the presence of Native American sites. The information provided in the report indicates that of the three predominant soil series found within the APE, two of these, Collamer and Ontario, which together represent 42% of the area, are moderately well or well drained. In addition, a number of the less abundant soil types present within the APE also are relatively better drained. Examination of Figure 4 in the report reveals a mosaic of soil types with differing drainage characteristics. The juxtaposition of relatively better and more poorly drained soils creates conditions of biodiversity and resource abundance which are often associated with Native American occupation and/or resource procurement.
2. Based on the above, SHPO recommends that the entire APE should be examined in accordance with published guidance. Please note that wetlands are not automatically exempted from the need for field testing. Minor topographic variation within areas broadly defined as wetlands frequently provide better drained locations, sometimes small, which were used as temporary bases for resource collection. Furthermore, climatic variation through the precontact period may have created, at times in the past, dry areas which are now wet.

3. As a possible alternative to conducting a Phase IB survey of the entire APE at this time, consideration may be given to the establishment of a Programmatic Agreement (PA) which would permit survey of discrete portions of the APE as development progresses.
4. SHPO strongly recommends that the Corps of Engineers be consulted as soon as possible regarding the need to undertake Native American consultation for this project.
5. Please remove Figure 5 from the report. Archaeological site locations not directly within a project's APE should not be displayed in a public document.

SHPO requests revision of the Phase IA report based on the preceding comments.

If you have any questions please don't hesitate to contact me.

Sincerely,

Philip A. Perazio

Philip A. Perazio, OPRHP
Phone: 518-237-8643 x3276; FAX: 518-233-9049
Email: Philip.Perazio@parks.ny.gov

Cc: Mary Beth Primo, OCIDA (via email)
Bridget Brown, USACOE (via email)

edr COMPANIES

memorandum

To:	Walt Kalina, CHA	**edr Project No:**	12062
From:	Patrick Heaton		
Date:	March 19, 2013		
Reference:	Clay Business Park Call with NYSOPRHP re: Phase 1A Cultural Resources Survey		

Comments:

On March 19, 2013, Patrick Heaton (**edr** Companies) spoke with Phillip Perazio at New York State Office of Parks, Recreation, and Historic Preservation (NYSOPRHP) regarding the proposed Clay Business Park project in the Town of Clay, Onondaga County, NY. Previously, **edr** prepared a Phase 1A Cultural Resources Survey for the project on behalf of CHA and the Onondaga County Industrial Development Authority (OCIDA), which was submitted to NYSOPRHP for their review in September, 2012. NYSOPRHP issued a review letter (authored by Mr. Perazio) on October 16, 2012 in response to the report.

In preparation for the call, **edr** emailed to Mr. Perazio the following additional materials:

1. A map entitled "Existing Site Conditions" prepared by CHA that was not included in the Phase 1A, which shows the extents of wetlands and limits of developable areas on the site (approximately 187 acres of the 340-acre site are developable). The extent of wetlands on the site (as shown on this map) and lack of topographic relief informed **edr**'s statement in the Phase 1A that the site is generally characterized by poorly drained soils.

2. An earlier NYSOPRHP response from May, 1998 (which was appended to the Phase 1A) that indicates NYSOPRHP had no concerns with the 255-acre parcel that makes up the southern part of the 340-acre Clay Business Park project site. Note that this response includes a form that indicates "no permits required" signed by Robert Kuhn as Historic Preservation Program Coordinator.

3. A map showing the extent of the 255-acre portion of the project site that was previously reviewed by NYSOPRHP.

These materials are also attached to this memo.

edr's discussion with Mr. Perazio can be summarized as follows:

1. **edr** indicated that the purpose of the call was to respond to NYSOPRHP's review letter.

2. **edr** stated it was OCIDA's goal to avoid or limit the need for Phase 1B archeological survey at the site.

3. **edr** referenced the 1998 NYSOPRHP letter and inquired if the previous evaluation of the 255-acre portion of the site is applicable.

4. NYSOPRHP indicated that the 1998 letter is outdated and no longer applicable. Mr. Perazio referenced the 2005 Phase 1 Cultural Resources Survey Report guidelines, issued by NYSOPRHP, and that the earlier letter reflects outdated standards/rationale because it pre-dates those guidelines. The 1998 letter indicates "No Permits Are Required". However, the current project requires a wetlands permit from the U.S. Army Corps of Engineers. In addition, Mr. Perazio referred to a recent New York State Museum (NYSM) volume regarding the significance of small prehistoric archeological sites (or lithic scatters; NYSM Bulletin 508). He stated that these references contribute to current standards for evaluating archeological sensitivity in NYS.

5. Mr. Perazio acknowledged that the "Existing Site Conditions" map prepared by CHA helped to clarify NYSOPRHP's understanding of the extent of wetlands and topographic character of the site.

6. NYSOPRHP indicated that in addition to the area around the esker and the two map-documented structures identified in the Phase 1A report, the areas along the fringes of the wetlands should also be considered archeologically sensitive because they represent marginal/boundary areas between ecotones, which are typically high-resource areas favored by hunter-gatherers (i.e., prehistoric Native American populations).

7. NYSOPRHP recommended that an appropriate Phase 1B testing strategy for the project site would be shovel testing at 50-foot intervals (in accordance with the New York State standards) in the following areas:

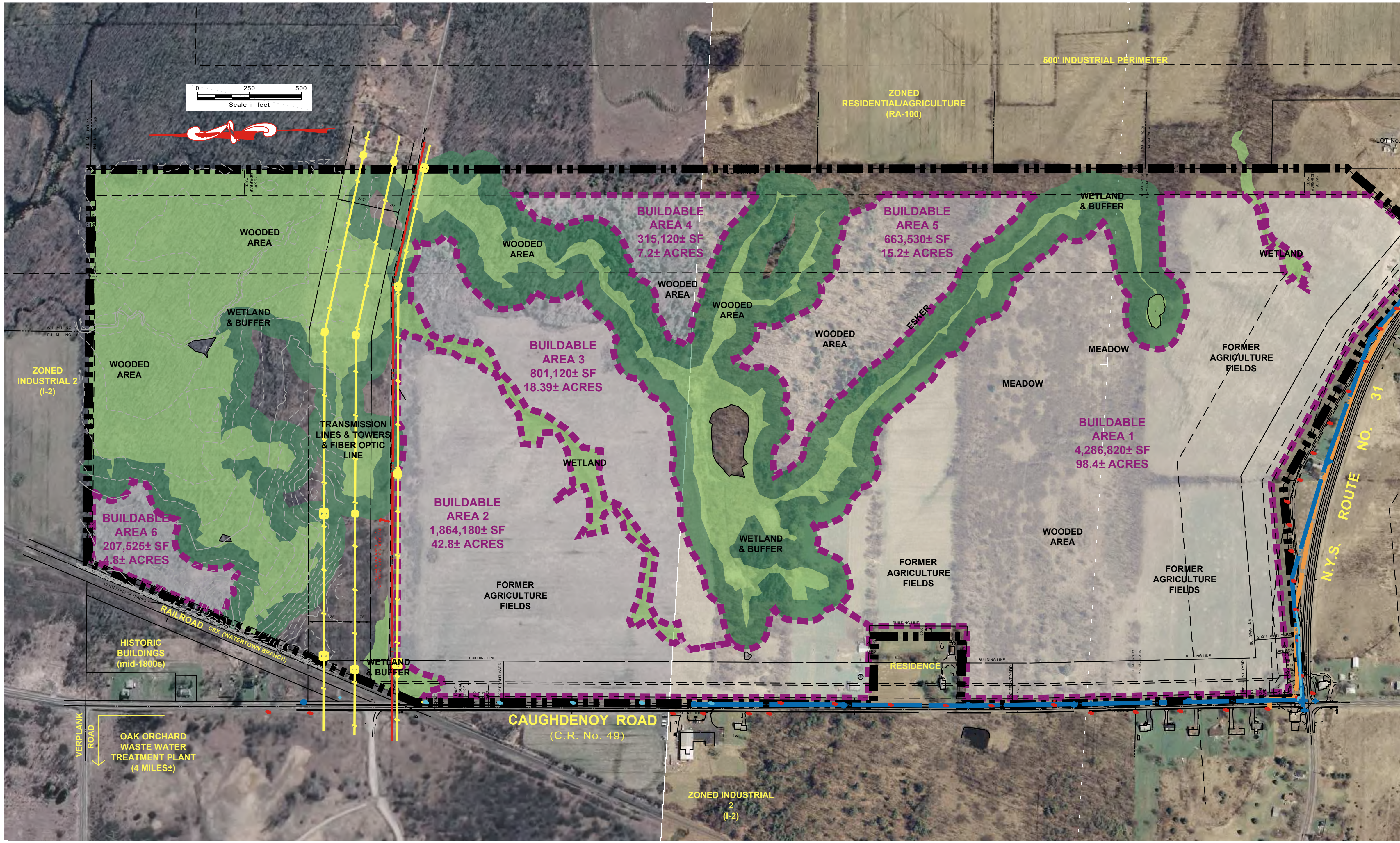
    a. The vicinity of the esker.
    b. The areas around the two map-documented structures depicted on historic maps. The NYSOPRHP 2005 Guidelines indicate that shovel tests should be dug at 7.5 meter (25 foot) intervals in yard areas of standing or map-documented historic structures.
    c. Within all areas identified as "Buildable Areas" on CHA's "Existing Site Conditions" map, a 100-foot-wide strip along the edges of wetlands and wetland buffers. In these areas shovel tests should be excavated in three parallel transects (along the edge of the wetland/wetland buffer boundary, 50 feet perpendicular to the wetland/wetland buffer boundary, and 100 feet from the wetland/wetland buffer boundary).

8. Other than these areas, NYSOPRHP recommended that Phase 1B testing would not be necessary in the remaining portions of the 355-acre project site.

Please contact Patrick Heaton at pheaton@edrcompanies.com or 315.471.0688 if you have any questions or comments on these minutes.

Attachments: "Existing Site Conditions" map (prepared by CHA); 1998 SHPO Letter; Parcel Map.

Copies To: file



SITE LEGEND

- EXISTING WETLANDS
- EXISTING WETLAND BUFFERS
- BUILDABLE AREAS: (186 ACRES±)
- FIBER OPTIC
- TRANSMISSION LINE & TOWERS
- OVERHEAD ELECTRIC SERVICE
- GAS
- TELEPHONE
- WATER (12" ALONG RT. 31 & 10" ALONG CAUGHDENOY ROAD)

TOWN OF CLAY ZONING DATA

TOTAL AREA: 339.26± ACRES
TAX MAP NOS. 48-01-01 & 2.2, 46-2-1, 2.1, 3.1, 4 & 5.2

INDUSTRIAL 2 (I-2) W/ 500' INDUSTRIAL PERIMETER

AREA, MINIMUM: N/A
WIDTH, MINIMUM: N/A
DEPTH, MINIMUM: N/A
MAXIMUM HEIGHT: N/A
MAXIMUM GROSS FLOOR AREA: N/A
MAXIMUM NUMBER OF FLOORS: N/A

COVERAGE, MAXIMUM BUILDING: 60% = 203.556 AC.
COVERAGE, MAXIMUM TOTAL: 80% = 271.408 AC.

PRINCIPAL STRUCTURES AND ATTACHED ACCESSORY STRUCTURES
FRONT YARD MINIMUM: 200' (NYS OR COUNTY HIGHWAY)
SIDE YARD MINIMUM: 25'+100' WHERE ABUTTING A NONINDUSTRIAL DISTRICT
REAR YARD MINIMUM: 25'+100' WHERE ABUTTING A NONINDUSTRIAL DISTRICT

SUPPLEMENTAL DISTRICT DESIGN STANDARDS
FRONT PERIMETER LANDSCAPE STRIP (% OF FRONT YARD DEPTH): 50% = 100'

ANY OPEN STORAGE OF MATERIALS OR WASTE SHALL BE SCREENED FROM VIEW FROM ALL PROPERTY LINES WITH A 7' HIGH FENCE, HEDGE OR SIMILAR OPAQUE BARRIER. SUCH SCREENING SHALL COMPLY WITH APPLICABLE SETBACKS.

HIGHWAY OVERLAY ZONE DISTRICT

TYPE A: NYS ROUTE 31 TYPE C: CAUGHDENOY ROAD

LOT DEPTH, MINIMUM: 200'		
LOT FRONTAGE, MINIMUM: 200'		
PRINCIPAL STRUCTURE:	TYPE A: 165'	TYPE C: 115'
ACCESSORY STRUCTURE:	TYPE A: 115'	TYPE C: 65'
PARKING AREA:	TYPE A: 90'	TYPE C: 55'

CORNER LOT REQUIREMENTS
(A) MINIMUM DEPTH, MEASURED ALONG THE NONDESIGNATED ROW, OF 250' FROM THE TYPE A, B, OR C HIGHWAY RIGHT-OF-WAY EDGE.
(B) DRIVEWAY ACCESS FOR A CORNER NO CLOSER THAN 100' TO THE INTERSECTION OF THE HIGHWAY RIGHT-OF-WAY LINES.
(C) WITHIN THE TRIANGULAR AREA FORMED BY THE INTERSECTION OF 2 RIGHT-OF-WAY LINES AND A THIRD LINE JOINING THEM AT POINTS 50' AWAY FROM THEIR INTERSECTION, THERE SHALL BE NO PLANTING OR STRUCTURES WHICH OBSTRUCT MOTORISTS' VISION OR DIMINISH HIGHWAY SIGHT DISTANCE.

PARKING

	MIN. PARKING SPACES	MIN. LOADING SPACES
OFFICE, NON-CLIENT-BASED		
LESS THAN 4,000 SQ. FT.	4/1,000 SQ. FT.	0
4,000 TO 15,000 SQ. FT.	3/1,000 SQ. FT.	0
GREATER THAN 15,000 SQ. FT.	2/1,000 SQ. FT.	1/50,000 SQ. FT.
PRODUCTION SITE (MANUFACTURING)	4/1,000 SQ. FT.	1/30,000 SQ. FT.
STORAGE SITE (WAREHOUSING)	0.5/1,000 SQ. FT.	1/50,000 SQ. FT.

PARKING SPACE SIZE: 9.5'X20' WITH A 20' DRIVE AISLE
HANDICAP PARKING: FOLLOW THE REQUIREMENTS OF NYS BUILDING CODE
LOADING SPACE SIZE: 12'X55' WITH A HEIGHT CLEARANCE OF 14'

prepared for:

OCIDA

EXISTING SITE CONDITIONS

CLAY BUSINESS PARK

SCALE: 1"=250'

FIGURE: 2.1-1

prepared by:

CHA
441 South Salina Street • Syracuse, NY 13202-4712
Main: (315) 471-3920 • www.chacompanies.com

02502 - 23854
5/12/98 SHPO Response to Lead Agency
C

New York State Office of Parks, Recreation and Historic Preservation
Historic Preservation Field Services Bureau
Peebles Island, PO Box 189, Waterford, New York 12188-0189

518-237-8643

Bernadette Castro
Commissioner

May 12, 1998

Kristine R. Such
Permit Coordinator
Governor's Office of Regulatory Reform
17th Floor, A.E. Smith Building
PO Box 7027
Albany, NY 12225

Dear Ms. Such:

RE: ESDC
Chip Fab 98 - 255 Acre Parcel
Intersection of Rt 31 & Caughdenoy
Clay, Onondaga County
98PR0600

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.

Based upon this review, it is the SHPO's opinion that your project will have No Effect upon cultural resources in or eligible for inclusion in the National Register of Historic Places.

If further correspondence is required regarding this project, please be sure to refer to the OPRHP Project Review (PR) number noted above.

Sincerely,

Ruth L. Pierpont

Ruth L. Pierpont
Director, Historic Preservation
Field Services Bureau

RLP:rma

Enclosure/Master Application Response Form
cc: Donald J. Western

Governor's Office of Regulatory Reform
Alfred E. Smith Office Building
P.O. Box 7027, 17th Floor
Albany, New York 12225

MASTER APPLICATION -- RESPONSE FORM

Instructions: Please complete this form and return it to the above address along with a list of required permits, permit application forms and a list of permit fees, if any. The Governor's Office of Regulatory Reform must receive this official response within fifteen (15) business days of your agency's receipt of the Master Application.

Agency Name & Address

NYS Office of Parks, Recreation & Historic Preservation
Peebles Island State Park
Waterford, NY 12188

The above listed agency has reviewed the Master Application Project Information Form for:

Company Name	MAP Number
Town of Clay	98030433

'ased upon the information received to date, it is determined that:

✓ **NO PERMITS ARE REQUIRED** by this agency for this project.

___ **PERMITS ARE REQUIRED** by this agency for this project. A list identifying the permits and stating the related fees is attached. The required permit application(s) is/are attached.

___ **NO PERMITS ARE REQUIRED** but informational materials are enclosed.

Bob Kuhn
Name (type or print)

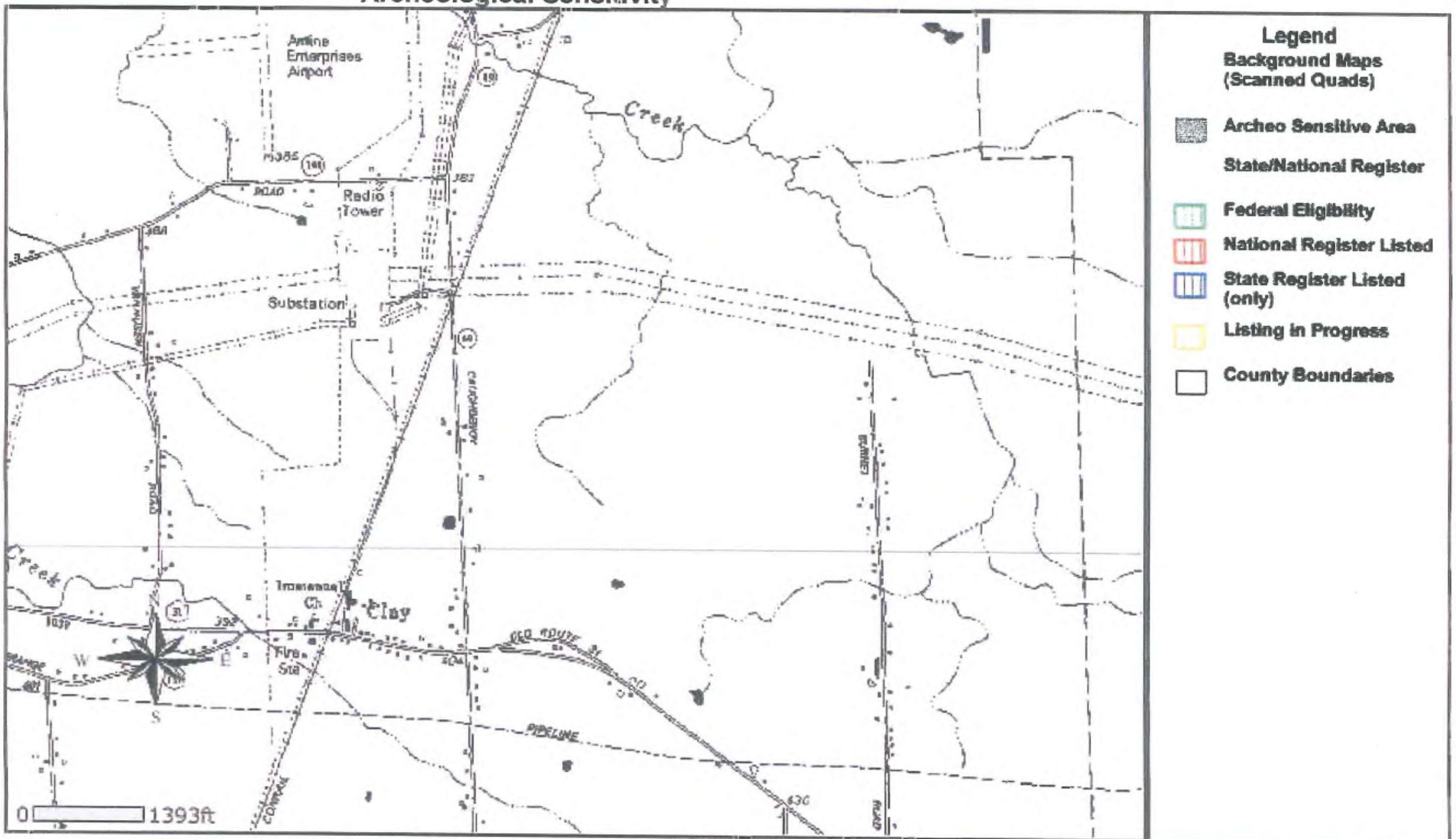
Robert Kuhn
Signature

Historic Preservation Program Coordinator
Title

5/11/98
Date

237-8643 x 255
'elephone Number

Clay Business Park - Archeological Sensitivity



March 24, 2010

Disclaimer: This map was prepared by the New York State Parks, Recreation and Historic Preservation National Register Listing Internet Application. The information was compiled using the most current data available. It is deemed accurate, but is not guaranteed.

MARCH 18, 2013

← THE AREA OUTLINED IN BLACK IS APPROXIMATELY 250 ACRES. THIS IS THE AREA PREVIOUSLY REVIEWED WHERE ROBERT KUHN INDICATED THAT NYSOPRHP HAD NO CONCERNS (MAY, 1998).

N

Figure 1.4-1

SITE AERIAL

Clay Business Park

Onondaga County Industrial Development Agency

0 0.125 0.25 0.5 Miles

From:	Perazio, Philip (PEB)
To:	Pat Heaton
Cc:	Walt Kalina (wkalina@chacompanies.com); MaryBethPrimo@ongov.net
Subject:	RE: 12PR04065 (Clay Business Park)
Date:	Monday, May 06, 2013 9:20:08 AM

Pat –

With regard to Wetland D, you say it is not mapped as containing hydric soils, suggesting either that it falls below the spatial threshold of the soil survey or that the wet conditions are a relatively recent development. In either case, I concur that this area can be eliminated from the area to be tested.

Philip.

Philip A. Perazio (PEB)
Historic Preservation Program Analyst - Archaeology Unit
New York State Office of Parks, Recreation and Historic Preservation
Peebles Island, PO Box 189, Waterford, NY 12188
Phone: (518) 237-8643 x 3276; FAX: 518-233-9049
Philip.Perazio@parks.ny.gov

From: Pat Heaton [mailto:Pheaton@edrcompanies.com]
Sent: Monday, April 15, 2013 1:39 PM
To: Perazio, Philip (PEB)
Cc: Walt Kalina (wkalina@chacompanies.com); MaryBethPrimo@ongov.net
Subject: RE: 12PR04065 (Clay Business Park)

Hi Phil
I met last week with OCIDA and their environmental consultants (CHA) to review our discussion re: the Phase 1B for the Clay Business Park site. In general the rationale for testing along wetland buffer/edge areas was well understood by the meeting participants. During this discussion, CHA and OCIDA observed that one of the wetlands on the site (Wetland D, see description from wetland delineation report below, noted on attached map, also Photo 5 from Phase 1A report - attached) was a very low quality wetland that consists of a low-relief swale with invasive vegetation that runs through a successional field.   It was observed that this wetland was until very recently actively farmed and that if farming was ongoing now there would be no wetland there. Wetland D is unlike the other wetlands on-site, which in general include well defined water courses and more distinct boundaries between wetland and upland areas. For these reasons, OCIDA would like to request that Phase 1B archeological testing not be required along/around Wetland D. The Phase 1B would be conducted as you requested around the remaining wetlands on the site. Please let me know if this approach is acceptable.

From Wetland Delineation Report (Terrestrial Environmental Specialists, Inc., 2012):

Wetland D
Wetland D is approximately 4.16 acre in size, and was found in the north-central portion of the site (Figure 8). Wetland D is a mix of wet meadow and scrub-shrub wetland cover types.
There was no tree or shrub layer in the wet meadow portion of the Wetland D. Reed canary grass and purple loosestrife dominated the herbaceous layer.
The scrub-shrub portion of Wetland D contained no tree layer but was dominated by silky dogwood and gray dogwood in the shrub layer. New England aster and mannagrass

dominated the herbaceous layer.
While not located in an area of mapped hydric soils, or soils with potential hydric inclusions, soils within Wetland D showed low matrix chromas with mottles in the B-horizon and had redoximorphic features.
Hydrology indicators in the wet meadow portion of wetland D contained drainage patterns. The scrub-shrub portion included inundation and saturation in the upper 12 inches. Water from this wetland drains north into Wetland E/I.

In addition, it's worth noting that Wetland D is a federal wetland and it is OCIDA's intent (as stated in the Draft GEIS) to have future development avoid Wetland D and all other wetlands. The wetlands with 100 foot buffers are State (DEC-protected) wetlands. If a future tenant needs to impact that wetland that future tenant will need to pursue a wetlands permit at that time.

Thanks, Pat

Patrick Heaton
Project Manager

Environmental Design & Research,
Landscape Architecture and Engineering, P.C. (edr)
217 Montgomery Street, Suite 1000, Syracuse, New York 13202
P. 315.471.0688 :: C. 315.391.3021 :: F. 315.471.1061
E. pheaton@edrcompanies.com :: www.edrcompanies.com

From: Perazio, Philip (PEB) [mailto:Philip.Perazio@parks.ny.gov]
Sent: Thursday, March 21, 2013 1:28 PM
To: Pat Heaton
Cc: Walt Kalina (wkalina@chacompanies.com)
Subject: RE: 12PR04065 (Clay Business Park)

Pat –

I've made two additions to your document. First, the 1998 letter indicates that "No Permits Are Required". However, it is our understanding that the current project requires a wetlands permit from the Corps. Therefore, it is subject to Section 106 of the National Historic Preservation Act. Second, the 2005 OPRHP report guidelines state that shovel testing in yard areas associated with standing historic buildings or map-documented structures should be undertaken at 7.5-meter (25-foot) intervals.

Otherwise, I concur with your summary.

Philip.

Philip A. Perazio (PEB)
Historic Preservation Program Analyst - Archaeology Unit
New York State Office of Parks, Recreation and Historic Preservation
Peebles Island, PO Box 189, Waterford, NY 12188
Phone: (518) 237-8643 x 3276; FAX: 518-233-9049
Philip.Perazio@parks.ny.gov

From: Pat Heaton [mailto:Pheaton@edrcompanies.com]

Sent: Thursday, March 21, 2013 11:54 AM
To: Perazio, Philip (PEB)
Cc: Walt Kalina (wkalina@chacompanies.com)
Subject: RE: 12PR04065 (Clay Business Park)

Hi Phil

Please review the attached minutes from our call the other day. I'd appreciate it if you would track any changes and send back to me. If you don't have any edits then please let me know that too.

Thanks for your help,

Pat

Patrick Heaton
Project Manager

edr Companies

From: Perazio, Philip (PEB) [mailto:Philip.Perazio@parks.ny.gov]
Sent: Tuesday, March 19, 2013 8:26 AM
To: Pat Heaton
Subject: RE: 12PR04065 (Clay Business Park)

3 it is.

Philip A. Perazio (PEB)
Historic Preservation Program Analyst - Archaeology Unit
New York State Office of Parks, Recreation and Historic Preservation
Peebles Island, PO Box 189, Waterford, NY 12188
Phone: (518) 237-8643 x 3276; FAX: 518-233-9049
Philip.Perazio@parks.ny.gov

From: Pat Heaton [mailto:Pheaton@edrcompanies.com]
Sent: Monday, March 18, 2013 5:07 PM
To: Perazio, Philip (PEB)
Subject: RE: 12PR04065 (Clay Business Park)

Hi Phil

I realized I have a scheduled meeting at 1:00 tomorrow. Will 3:00 work for you? (in case my meeting is not wrapped up at 2).

Thanks,

Pat

Patrick Heaton
Project Manager

edr Companies

From: Perazio, Philip (PEB) [mailto:Philip.Perazio@parks.ny.gov]
Sent: Monday, March 18, 2013 3:18 PM
To: Pat Heaton
Subject: RE: 12PR04065 (Clay Business Park)

Why don't we shoot for 2 tomorrow afternoon? We're forecast to get a fair amount of snow here overnight, but I should be in by the afternoon.

Philip.

Philip A. Perazio (PEB)
Historic Preservation Program Analyst - Archaeology Unit
New York State Office of Parks, Recreation and Historic Preservation
Peebles Island, PO Box 189, Waterford, NY 12188
Phone: (518) 237-8643 x 3276; FAX: 518-233-9049
Philip.Perazio@parks.ny.gov

From: Pat Heaton [mailto:Pheaton@edrcompanies.com]
Sent: Monday, March 18, 2013 1:40 PM
To: Perazio, Philip (PEB)
Subject: 12PR04065 (Clay Business Park)

Hi Phil
I would like to schedule a call with you to discuss OPRHP's response to the Phase 1A report we submitted for the Clay Business Park in September 2012 (your response was dated October 16, 2012). After reviewing your comments and considering the information presented in the Phase 1A report, I would like to discuss the recommended level of effort for a Phase 1B survey at the site. I have attached for your consideration and for discussion during this call:

- a map entitled "Existing Site Conditions" prepared by CHA that was not included in the Phase 1A (it should have been, and will be included in the revised report) that shows the extents of wetlands and limits of developable areas on the site (approximately 187 acres of the 340-acre site are developable). The extent of wetlands on the site (as shown on this map) and lack of topographic relief informed our statement that the site is generally characterized by poorly drained soils.
- an earlier NYSOPRHP response from May, 1998 (which was appended to the Phase 1A) that indicates NYSOPRHP has no concerns with the 255-acre parcel that makes up the southern part of the 340-acre Clay Business Park project site. Note that this response includes a form that indicates "no permits required" signed by Robert Kuhn as Historic Preservation Program Coordinator.
- A map showing the extent of the 255-acre portion of the project site that was previously reviewed by NYSOPRHP.

I would like to discuss these materials with you and revisit the discussion of whether a limited Phase 1B scope is appropriate for the site. Please let me know when you are available to discuss this and I will call you.

Thank you,

Patrick Heaton

Project Manager

edr Companies
217 Montgomery Street, Suite 1000, Syracuse, New York 13202
P. 315.471.0688 :: M. 315.391.3021 :: www.edrcompanies.com

edr is a certified WBE/DBE/SBE

From:	Pat Heaton
To:	Pat Heaton
Subject:	RE: 12PR04065 (Clay Business Park)
Date:	Friday, September 06, 2013 5:07:16 PM

From: Perazio, Philip (PEB) [mailto:Philip.Perazio@parks.ny.gov]
Sent: Monday, July 01, 2013 1:08 PM
To: Pat Heaton
Subject: RE: 12PR04065 (Clay Business Park)

Pat –

Go ahead with that.

Philip.

Philip A. Perazio (PEB)
Historic Preservation Program Analyst - Archaeology Unit
Division for Historic Preservation
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Peebles Island, PO Box 189, Waterford, NY 12188
Phone: (518) 237-8643 x 3276; FAX: 518-233-9049
Philip.Perazio@parks.ny.gov

From: Pat Heaton [mailto:Pheaton@edrcompanies.com]
Sent: Thursday, June 20, 2013 9:33 AM
To: Perazio, Philip (PEB)
Cc: Arron Kotlensky
Subject: RE: 12PR04065 (Clay Business Park)

Hi Philip
For most areas I'd like to propose 10%. There are 2 historic-period sites in the project area. We will include all of the shovel tests for these areas. In addition, if there are any other areas where the stratigraphy is significantly different or noteworthy then we will include those areas as well. Please let me know if this will be ok.
Thanks, Pat

Patrick Heaton
Project Manager

Environmental Design & Research,
Landscape Architecture and Engineering, P.C. (edr)

From: Perazio, Philip (PEB) [mailto:Philip.Perazio@parks.ny.gov]
Sent: Wednesday, June 19, 2013 9:59 AM
To: Pat Heaton
Cc: Arron Kotlensky
Subject: RE: 12PR04065 (Clay Business Park)

What fraction of the tests do you propose to report?

Philip A. Perazio (PEB)

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Phone: (518) 237-8643 x 3276; FAX: 518-233-9049
Philip.Perazio@parks.ny.gov

From: Pat Heaton [mailto:Pheaton@edrcompanies.com]
Sent: Wednesday, June 19, 2013 9:18 AM
To: Perazio, Philip (PEB)
Cc: Arron Kotlensky
Subject: Re: 12PR04065 (Clay Business Park)

Hi Philip
We are currently conducting the phase 1B survey for the clay business park site. The approach you outlined of 3 transects along wetland boundary areas is working well. So far, with the exception of shovel tests in the vicinity of map-documented structures and infrequent historic-period field scatter, the results of shovel testing are all negative (no cultural material). The phase 1 guidelines request that all stratigraphic profiles be tabulated as an appendix for the report. In order to avoid the costs and time associated with data entry for 100s of negative shovel tests, I would like to request that we only provide records for representative shovel tests in most areas. We would still provide tabulated shovel tests for site area (both historic and, if we find any, prehistoric sites). We would also provide scanned copies of all field data for all of the shovel tests as an appendix on cd with the report. Please let me know if this would be acceptable. I will be in my office to discuss this if you would like on Thursday and Friday of this week. Thanks.

Pat Heaton

Appendix C:

Selected Shovel Test Stratigraphic Profiles

Shovel Test	Depth (cm)	Soil Color	Soil Texture	Comments/Artifacts
Archeological Survey Area 1 (representative 10% sample of shovel test profiles)				
1.1.01	0-25	10YR 4/1	silt loam, hydric, plowzone (APZ)	No Cultural Material (NCM); water 25 cm
1.1.10	0-30	10YR 4/1	silt loam, APZ	NCM; water 25 cm
1.1.20	0-26	10YR 3/3 mottled	silt loam	NCM
1.1.20	26-40	10YR 4/6	silt loam	NCM
1.1.30	0-22	10YR 4/3	silt loam	NCM
1.1.30	22-33	10YR 4/6	silt loam	NCM
1.1.40	0-30	10YR 4/3	silt loam	NCM
1.1.40	30-44	10YR 4/6 mottled	silt loam	NCM
1.1.50	0-23	10YR 3/3	silt loam	NCM
1.1.50	23-38	10YR 4/6	silt loam	NCM
1.1.60	0-22	10YR 4/3	silt loam	NCM
1.1.60	22-35	10YR 4/6	silt loam	NCM
1.1.70	0-26	10YR 4/3	silt loam	NCM
1.1.70	26-36	10YR 5/3	silt loam	NCM
1.1.80	0-26	10YR 4/3	silt loam	NCM
1.1.80	26-42	10YR 4/6	silt loam	NCM
1.1.90	0-25	10YR 3/2	silt loam	NCM
1.1.90	25-46	10YR 4/6	silt loam, inundated	NCM
1.1.100	0-25	10YR 3/3	silt loam, standing water	NCM
1.1.101	0-25	10YR 3/3	silt loam, standing water	NCM
1.2.01	0-29	10YR 4/3	silt loam	NCM
1.2.01	29-41	10YR 5/8	silty clay	NCM
1.2.10	0-27	10YR 4/3	silt loam	NCM
1.2.10	27-33	10YR 5/6	silty clay	NCM; filled with water
1.2.20	0-24	10YR 4/3	silt loam	NCM
1.2.20	24-27	10YR 5/8	silty clay	NCM; water
1.2.30	0-23	10YR 4/3	silt loam	NCM
1.2.30	23-33	10YR 5/6	silt clay loam	NCM
1.2.40	0-24	10YR 4/3	silt clay loam	NCM
1.2.40	24-34	10YR 5/6	silt clay loam	NCM
1.2.50	0-32	10YR 4/3	silt clay loam	NCM
1.2.50	32-43	10YR 2/2	silt clay loam	NCM; apparent agricultural filling or slope wash in low area
1.2.50	43-53	10YR 5/6	silt clay loam	NCM
1.2.60	0-22	10YR 4/3	silt clay loam	NCM
1.2.60	22-32	10YR 5/6	silt clay loam	NCM
1.2.70	0-18	10YR 4/4	silt clay loam	NCM
1.2.70	18-28	10YR 5/6	silt clay loam	NCM
1.2.80	0-24	10YR 4/4	silt clay loam	NCM
1.2.80	24-34	10YR 5/6	silt clay loam	NCM
1.2.90	0-27	10YR 4/4	silt clay loam	NCM
1.2.90	27-37	10YR 5/6	silt clay loam, water	NCM
1.2.100	0-18	10YR 4/4	silt clay loam	NCM
1.2.100	18-28	10YR 5/6	silt clay loam	NCM
1.2.110	0-20	10YR 4/3	silt clay loam	NCM
1.2.110	20-30	10YR 5/6	silt clay loam	NCM
1.2.112	0-10	10YR 4/3	silt clay loam	NCM
1.2.112	10-	water	Standing water	NCM
1.3.01	0-26	10YR 4/2	silt clay loam	NCM
1.3.01	26-40	10YR 5/3, 5/6	silty clay	NCM; water seepage
1.3.10	0-30	10YR 4/2	silt clay loam	NCM; small pebbles/cobbles

Shovel Test	Depth (cm)	Soil Color	Soil Texture	Comments/Artifacts
1.3.10	30-40	10YR 5/3, 5/6	silty clay	NCM
1.3.20	0-30	10YR 4/2	silt clay loam	NCM; water
1.3.30	0-30	10YR 3/3	silt loam	NCM
1.3.30	30-40	10YR 4/6	silt loam	NCM
1.3.40	0-27	10YR 3/4	silt loam	NCM
1.3.40	27-37	10YR 6/3	silt loam	NCM
1.3.50	0-33	10YR 3/2	clay loam	NCM
1.3.50	33-43	10YR 4/4	clay loam	NCM
1.3.60	0-33	10YR 3/3	silt loam	NCM
1.3.60	33-47	10YR 5/4	silt loam	NCM
1.3.70	0-30	10YR 3/2	clay loam	NCM
1.3.70	30-40	10YR 5/6	silty clay	NCM; water
1.3.80	0-30	10YR 5/2	clay loam	NCM
1.3.80	30-40	10YR 6/3, 5/6	silty clay	NCM
1.3.90	0-30	10YR 3/2	clay loam	NCM; water @ 37 cm
1.3.90	30-37	10YR 5/6	silty clay	NCM; water @ 37 cm
1.3.100	0-30	10YR 5/2	silty clay	NCM; water @ 30 cm; next to large old tree
1.3.105	0-27	10YR 3/1	silty clay	NCM
1.3.105	27-37	10YR 5/4	silty clay	NCM
Archeological Survey Area 2 (representative 10% sample of shovel test profiles)				
2.1.01	0-28	10YR 4/4	silt loam	NCM
2.1.01	28-42	10YR 5/6	silt loam	NCM
2.1.10	0-5	10YR 4/4	Gravel	NCM; w/in 25 ft of Transmission Line - heavy gravel
2.1.20	0-27	10YR 3/3	silt clay loam	NCM
2.1.20	27-40	10YR 4/4	silt clay loam	NCM
2.1.30	0-30	10YR 4/3	silt loam	NCM
2.1.30	30-42	10YR 4/6	silt clay loam, water	NCM
2.1.36	0-28	10YR 4/3	silt clay loam	NCM
2.1.36	28-39	10YR 5/4	silt clay loam	NCM
2.2.01	0-23	10YR 4/3	silt clay loam	NCM
2.2.01	23-33	10YR 5/5	silt clay loam	NCM
2.2.10	0-20	10YR 4/3	silt clay loam	NCM
2.2.10	20-30	10YR 5/6	silt clay loam	NCM
2.2.20	0-23	10YR 4/3	silt clay loam	NCM
2.2.20	23-33	10YR 5/4	silt clay loam, water	NCM
2.2.30	0-24	10YR 4/3	silt clay loam	NCM
2.2.30	24-34	10YR 4/6	silt clay loam	NCM
2.2.34	0-27	10YR 4/3	silt clay loam	NCM
2.2.34	27-37	10YR 4/6	silt clay loam	NCM
2.3.01	0-28	10YR 4/3	silt loam	NCM
2.3.01	28-38	10YR 5/6	silt loam	NCM
2.3.10	0-30	10YR 4/2	clay loam	NCM; water
2.3.20	0-28	10YR 3/4	clay loam	NCM; adjacent to MDS Site 1
2.3.20	28-38	10YR 5/4	silty clay	NCM
2.3.30	0-27	10YR 4/2	clay loam	NCM; soils wet
2.3.30	27-37	10YR 5/4, 6/3	silt loam	NCM; soils wet
2.3.38	0-32	10YR 5/2	clay loam	NCM
2.3.38	32-42	10YR 7/3, 5/8	silty clay	NCM
Archeological Survey Area 3 (representative 10% sample of shovel test profiles)				
3.1.01	0-25	10YR 5/4	silt loam - APZ	NCM
3.1.01	25-35	10YR 5/6, 6/4	silt clay loam	NCM

Shovel Test	Depth (cm)	Soil Color	Soil Texture	Comments/Artifacts
3.1.10	0-25	10YR 4/3	silt loam - APZ	NCM
3.1.10	25-36	10YR 5/6, 6/4	silty clay	NCM
3.1.20	0-3	sod	silt loam	NCM
3.1.20	3-30	10YR 5/4	silt loam	NCM
3.1.20	30-35	10YR 5/6	loam	NCM
3.1.30	5-22	10YR 5/4	silt loam	NCM
3.1.30	22-35	10YR 5/6	silt clay loam	NCM; inside copse
3.1.40	0-21	10YR 5/4	sandy loam	NCM
3.1.40	21-31	10YR 5/6	clay loam	NCM
3.1.50	0-32	10YR 4/6	silt loam	NCM
3.1.50	32-43	10YR 6/4	silt loam	NCM; heavy tree roots
3.1.60	0-22	10YR 4/3	silt loam	NCM
3.1.60	22-33	10YR 5/6	silt loam	NCM
3.1.65	0-23	10YR 4/4	silt loam	NCM
3.1.65	23-39	10YR 4/6	silt loam	1 square nail
3.2.01	0-30	10YR 3/3	silt loam	NCM
3.2.01	30-40	10YR 6/2, 5/8	silty clay	NCM
3.2.10	0-32	10YR 3/3	silt loam	NCM
3.2.10	32-47	10YR 6/2, 5/8	silty clay	NCM
3.2.20	0-3	sod	silt loam	NCM
3.2.20	3-25	10YR 4/4	silt clay loam	NCM
3.2.20	25-35	10YR 6/3	silt loam	NCM
3.2.30	0-24	10YR 4/4	silt loam	NCM
3.2.30	24-36	10YR 2/2, 7.5YR 5/6	silt clay loam	NCM
3.2.30	36-46	10YR 5/5	silt loam	NCM
3.2.40	0-24	10YR 4/4	silt loam	NCM
3.2.40	24-34	10YR 6/4	silt clay loam	NCM
3.2.50	0-20	10YR 4/3	silt clay loam	NCM
3.2.50	20-30	10YR 5/6	silt clay loam	NCM
3.2.60	0-22	10YR 4/4	silt clay loam	NCM
3.2.60	22-32	10YR 5/6	silt clay loam	NCM
3.2.62	0-32	10YR 4/4	silt clay loam	NCM
3.2.62	32-42	10YR 5/6	silt clay loam	NCM
3.3.01	0-24	10YR 3/3	silt loam	NCM
3.3.01	24-35	10YR 5/8, 6/2	silt loam	NCM
3.3.10	0-24	10YR 3/3	silt loam	NCM
3.3.10	24-36	10YR 5/8	silt loam	NCM
3.3.20	0-28	10YR 3/3	silt loam	NCM
3.3.20	28-38	10YR 6/2, 5/8	silty clay	NCM
3.3.30	0-30	10YR 3/3	silt loam	NCM
3.3.30	30-40	10YR 6/2, 5/8	silty clay	NCM
3.3.40	0-38	10YR 3/3	silt loam	NCM
3.3.40	38-48	10YR 6/2, 5/8	silty clay	NCM
3.3.50	0-34	10YR 3/3	clay loam	NCM
3.3.50	34-45	10YR 5/4	silty clay	NCM
3.3.55	0-30	10YR 4/2	clay loam	NCM
3.3.55	30-40	10YR 6/3, 5/6	silty clay	NCM
Archeological Survey Area 4 (representative 10% sample of shovel test profiles)				
4.1.01	0-22	10YR 3/3	silt loam	NCM
4.1.01	22-33	10YR 6/4	silt clay loam	NCM
4.1.10	0-21	10YR 5/4	silt loam	NCM

Shovel Test	Depth (cm)	Soil Color	Soil Texture	Comments/Artifacts
4.1.10	21-33	10YR 8/2	clay loam	NCM
4.1.20	0-31	10YR 3/2	silt loam	NCM
4.1.20	31-43	10YR 6/3	silt loam, water	NCM
4.1.30	0-19	10YR 4/4	silt loam	NCM
4.1.30	19-33	10YR 4/6	silt loam	NCM
4.1.40	0-12	10YR 3/2	silt loam	NCM
4.1.40	12-31	10YR 6/1, 4/6	silt loam	NCM
4.1.43	0-12	10YR 3/3	silt loam	NCM
4.1.43	12-22	10YR 6/3	silt clay loam	NCM
4.2.01	0-24	10YR 2/2	silt clay loam	NCM
4.2.01	24-34	10YR 4/2	silt clay loam, water	NCM
4.2.10	0-23	10YR 4/3	silt clay loam	NCM
4.2.10	23-33	10YR 6/3	silt clay loam	NCM
4.2.20	0-8	10YR 4/3	silt clay loam	NCM
4.2.20	8-16	10YR 6/4	silt clay loam	NCM
4.2.20	16-26	10YR 6/2	silt clay loam	NCM
4.2.30	0-14	10YR 4/3	silt clay loam	NCM
4.2.30	14-24	10YR 6/4	silt clay loam	NCM
4.2.34	0-16	10YR 3/3	silt clay loam	NCM
4.2.34	16-26	10YR 6/4	silt clay loam	NCM
4.3.01	0-17	10YR 5/2	clay loam	NCM; soils wet
4.3.01	17-33	10YR 6/3, 5/6	silty clay	NCM
4.3.10	0-20	10YR 3/2	clay loam	NCM
4.3.10	20-30	10YR 5/4	silty clay	NCM
4.3.20	0-30	10YR 4/3	silty clay	NCM
4.3.20	30-40	10YR 4/6	silty clay	NCM
4.3.30	0-8	10YR 3/3	silt loam	NCM
4.3.30	8-24	10YR 6/4	silt loam	NCM
Archeological Survey Area 5 (representative 10% sample of shovel test profiles)				
5.1.01	0-30	10YR 4/4	silt loam	NCM
5.1.01	30-51	10YR 4/5	silt loam	NCM
5.1.10	0-32	10YR 4/4	silt loam	NCM
5.1.10	32-45	10YR 4/5	silt loam	NCM
5.1.20	0-16	10YR 4/4	silt loam	NCM
5.1.20	16-29	10YR 4/5	silt loam	NCM
5.1.30	0-9	10YR 3/3	silt loam	NCM
5.1.30	9-14	10YR 7/2	silt loam	NCM
5.1.30	14-29	5YR 4/6	silt loam	NCM
5.1.40	0-22	10YR 4/4	silt loam	NCM
5.1.40	22-34	5YR 5/6	silt loam	NCM
5.1.50	0-12	10YR 4/4	silt loam	NCM
5.1.50	12-22	10YR 4/6	silt clay loam	NCM
5.1.60	0-14	10YR 4/3	silt clay loam	NCM
5.1.60	14-24	10YR 6/4	silt clay loam	NCM
5.1.70	0-14	10YR 3/2	silt clay loam	NCM
5.1.70	14-24	10YR 6/3	silt clay loam	NCM
5.1.74	0-15	10YR 4/3	silt loam	NCM
5.1.74	15-25	10YR 6/3	silty clay	NCM
5.2.01	0-24	10YR 5/4	silt loam	NCM
5.2.01	24-34	10YR 6/4	silt clay loam	NCM
5.2.10	0-15	10YR 4/3	silt clay loam	NCM

Shovel Test	Depth (cm)	Soil Color	Soil Texture	Comments/Artifacts
5.2.10	15-25	10YR 6/4	silt clay loam	NCM
5.2.20	0-17	10YR 4/3	silt clay loam	NCM
5.2.20	17-27	10YR 6/4	silt clay loam	NCM
5.2.30	0-9	10YR 4/3	silt loam	NCM
5.2.30	9-15	10YR 6/4	silt loam	NCM
5.2.30	15-25	10YR 6/6	silt clay loam	NCM
5.2.40	0-7	10YR 4/3	silt clay loam	NCM
5.2.40	7-17	10YR 6/4	silt clay loam	NCM
5.2.50	0-28	10YR 4/3	silt clay loam	NCM
5.2.50	28-38	10YR 6/4	silt clay loam	NCM
5.2.58	0-24	10YR 3/2	silt clay loam	NCM
5.2.58	24-34	10YR 6/2	silt clay loam	NCM
5.3.01	0-27	10YR 4/3	silt loam	NCM
5.3.01	27-37	10YR 4/6	clay loam	NCM
5.3.10	0-35	10YR 3/3	clay loam	NCM
5.3.10	35-45	10YR 6/3	silty clay	NCM
5.3.20	0-20	10YR 4/3	clay loam	NCM
5.3.20	20-30	10YR 4/6	silty clay	NCM
5.3.30	0-20	10YR 3/1	clay loam	NCM
5.3.30	20-33	10YR 5/4	silty clay	NCM
5.3.40	0-18	10YR 3/2	clay loam	NCM
5.3.40	18-27	10YR 5/2	clay loam	NCM
5.3.40	27-37	10YR 5/4	silty clay	NCM
5.3.50	0-20	10YR 4/3	silt clay loam	NCM
5.3.50	20-30	10YR 5/2	silt clay loam	NCM
5.3.52	0-30	10YR 3/3	silt clay loam	NCM
5.3.52	30-40	10YR 6/2	silt clay loam	NCM
Archeological Survey Area 6 (representative 10% sample of shovel test profiles)				
6.1.01	0-24	10YR 4/3	silt clay loam	NCM
6.1.01	24-49	10YR 5/3 mottled	ClLo, water	NCM
6.1.10	0-38	10YR 4/3	silt clay loam	NCM
6.1.10	38-49	10YR 6/4	ClLo, water	NCM
6.1.20	0-26	10YR 4/3	silt clay loam	NCM
6.1.20	26-36	10YR 4/4	silt clay loam	NCM
6.1.26	0-22	10YR 4/2	silt loam	NCM
6.1.26	22-32	10YR 5/6	silty clay	NCM
6.2.01	0-24	10YR 4/3	silt clay loam	NCM
6.2.01	24-34	10YR 5/4	silt clay loam, water	NCM
6.2.02	0-22	10YR 4/3	silt clay loam	NCM
6.2.02	22-32	10YR 4/6	silt clay loam	NCM
6.2.03	0-22	10YR 4/3	silt clay loam	NCM
6.2.03	22-32	10YR 6/3	silt clay loam, water	NCM
6.2.04	0-20	10YR 4/3	silt clay loam	NCM
6.2.04	20-30	10YR 6/3	silt clay loam	NCM
6.2.05	0-23	10YR 4/3	silt clay loam	NCM
6.2.05	23-33	10YR 6/3	silt clay loam, water	NCM
6.2.06	0-20	10YR 4/3	silt clay loam	NCM
6.2.06	20-30	10YR 6/3	silt clay loam	NCM
6.2.07	0-10	10YR 4/3	silt clay loam	NCM
6.2.07	10-20	Water	silt clay loam	NCM
6.2.08	0-18	10YR 4/3	silt clay loam	NCM

Shovel Test	Depth (cm)	Soil Color	Soil Texture	Comments/Artifacts
6.2.08	18-28	10YR 4/6	silt clay loam	NCM
6.2.09	0-12	10YR 4/3	silt clay loam	NCM
6.2.09	12-22	10YR 4/6	silt clay loam	NCM
6.2.10	0-18	10YR 4/3	silt clay loam	NCM
6.2.10	18-28	10YR 4/6	silt clay loam, water	NCM
6.2.11	0-14	10YR 4/3	silt clay loam	NCM
6.2.11	14-24	10YR 4/6	silt clay loam, water	NCM
6.2.12	0-10	10YR 4/3	silt clay loam	NCM
6.2.12	10-20	10YR 4/6	silt clay loam	NCM
6.2.13	0-21	10YR 4/3	silt clay loam	NCM
6.2.13	21-31	10YR 4/6	silt clay loam, water	NCM
6.2.14	0-16	10YR 4/3	silt clay loam	NCM
6.2.14	16-26	10YR 4/6	silt clay loam, water	NCM
6.2.15	0-25	10YR 4/3	silt clay loam	NCM
6.2.15	25-35	10YR 4/6	silt clay loam, water	NCM
6.2.16	0-23	10YR 4/3	silt clay loam	NCM
6.2.16	23-33	10YR 4/6	silt clay loam	NCM
6.2.17	0-22	10YR 4/3	silt clay loam	NCM
6.2.17	22-32	10YR 4/6	silt clay loam	NCM
6.2.18	0-34	10YR 4/3	silt clay loam	NCM
6.2.18	34-44	10YR 4/6	silt clay loam	NCM
6.2.19	0-26	10YR 4/3	silt clay loam	NCM
6.2.19	26-36	10YR 5/6	silt clay loam	NCM
6.2.20	0-22	10YR 4/3	silt clay loam	NCM
6.2.20	22-32	10YR 6/3	silt clay loam	NCM
6.3.01	0-27	10YR 4/2	clay loam	NCM
6.3.01	27-40	10YR 5/6	silty clay	NCM
6.3.02	0-32	10YR 4/2	clay loam	NCM
6.3.02	32-42	10YR 5/6	silty clay	NCM
6.3.03	0-30	10YR 4/2	clay loam	NCM
6.3.03	30-40	10YR 5/8, 6/2	silty clay	NCM
6.3.04	0-28	10YR 4/3	clay loam	NCM
6.3.04	28-38	7.5YR 5/6	silty clay	NCM
6.3.05	0-17	10YR 4/2	clay loam	NCM; water
6.3.06	0-18	10YR 4/2	clay loam	NCM; water
6.3.07	0-37	10YR 4/2	clay loam	NCM
6.3.07	37-51	10YR 5/6	silty clay	NCM; water
6.3.08	0-31	10YR 4/2	clay loam	NCM
6.3.08	31-43	10YR 5/6	silty clay	NCM; water
6.3.09	0-29	10YR 4/2	clay loam	NCM
6.3.09	29-40	10YR 5/6	silty clay	NCM
6.3.10	0-34	10YR 4/2	clay loam	NCM
6.3.10	34-50	10YR 6/1, 5/8	silty clay	NCM
6.3.11	0-30	10YR 4/2	clay loam	NCM; water
6.3.12	0-34	10YR 4/2	clay loam	NCM
6.3.13	0-25	10YR 4/2	clay loam	NCM
6.3.13	25-35	10YR 5/6	silty clay	NCM
6.3.14	0-26	10YR 4/2	clay loam	NCM
6.3.14	26-36	10YR 5/6	silty clay	NCM
6.3.15	0-29	10YR 4/2	clay loam	NCM
6.3.15	29-43	10YR 5/6	silty clay	NCM

Shovel Test	Depth (cm)	Soil Color	Soil Texture	Comments/Artifacts
6.3.16	0-33	10YR 4/3	silt loam	NCM
6.3.16	33-44	10YR 6/4	silty clay	NCM
6.3.17	0-35	10YR 4/3	silt loam	NCM
6.3.17	35-49	10YR 6/4	silty clay	NCM
Proposed Utility Line (representative 10% sample of shovel test profiles)				
UL.01	0-22	10YR 3/2	clay loam	NCM; water
UL.01	22-36	10YR 6/6, 5/8	silty clay	NCM
UL.10	0-25	10YR 2/2	clay loam	NCM
UL.10	25-35	10YR 6/3, 5/8	silty clay	NCM
UL.20	0-46	10YR 2/1	clay loam	NCM; lots of roots
UL. 20	46-56	10YR 5/4	clay loam	NCM
UL.30	0-43	10YR 4/3	silt loam	1 mortar fragment, 1 whiteware sherd
UL.30	43-53	10YR 7/2, 5/8	sandy loam	1 clear vessel glass fragment
UL.40	0-31	10YR 3/2	clay loam	NCM
UL.40	31-38	10YR 7/2, 6/1	silt	NCM
UL.40	38-48	10YR 6/3, 5/8	silt	NCM
UL.50	0-23	10YR 4/3	clay loam	NCM
UL.50	23-33	10YR 5/6	silty clay	NCM
UL.60	0-30	10YR 3/3	silty clay	NCM
UL.60	30-40	10YR 4/6	sandy loam	NCM
UL.70	0-18	10YR 4/2	clay loam	NCM (standing water on surface)
UL.70	18-41	10YR 5/1, 5/8	silty clay	NCM
UL.80	0-46	10YR 4/4	silt loam	NCM
UL.80	46-56	10YR 4/6	silt loam, w/decomposing rock	NCM
UL.90	0-20	10YR 3/3	silt clay loam	NCM
UL.90	20-36	10YR 6/6	silt clay loam	NCM
UL.100	0-30	10YR 4/3	silt clay loam	NCM
UL.100	30-40	10YR 5/2	silt clay loam	NCM
UL.110	0-30	10YR 4/2	clay loam	NCM
UL.110	30-40	10YR 6/3, 5/8	sandy clay	NCM
UL.120	0-30	10YR 4/3	silt clay loam	NCM
UL.120	30-40	10YR 5/6	silt clay loam	NCM
UL.130	0-20	10YR 4/3	silt clay loam	NCM
UL.130	20-30	10YR 6/6	silt clay loam	NCM
UL.140	0-10	10YR 5/2	clay loam	NCM (cobbles and gravel)
UL.140	10-20	10YR 4/3	sandy loam	NCM
UL.140	20-33	10YR 6/6	sandy loam	NCM
UL.150	0-30	10YR 4/3	sandy loam	NCM
UL.150	30-40	10YR 5/6	sandy loam	NCM
UL.160	0-35	10YR 4/3	sandy loam	NCM
UL.160	35-45	10YR 6/3	loam	NCM
UL.170	0-41	10YR 4/4	silt loam	NCM
UL.170	41-51	10YR 4/6	silt clay loam	NCM
UL.180	0-14	10YR 4/3	silt clay loam	NCM
UL.180	14-24	10YR 5/5	silt clay loam	NCM
UL.190	0-15	10YR 3/3	silt clay loam	NCM
UL.190	15-25	10YR 5/6	silt clay loam	NCM
UL.200	0-26	10YR 4/3	clay loam	NCM
UL.200	26-36	10YR 5/4	clay loam	NCM
UL.210	0-28	10YR 6/2	silt clay loam, water	NCM
UL.210	28-38	10YR 4/6	silt clay loam, water	NCM

Shovel Test	Depth (cm)	Soil Color	Soil Texture	Comments/Artifacts
UL.220	0-15	10YR 4/3	silt clay loam	NCM
UL.220	15-25	10YR 4/6	silt clay loam	NCM
UL.230	0-24	10YR 4/3	Si cl lo, gravel	NCM; disturbed soils
UL.240	0-28	10YR 2/2	silt loam	some very modern plastic
UL.240	28-38	10YR 4/3	silt clay loam	NCM
UL.250	0-20	10YR 4/3	silt clay loam	NCM
UL.250	20-30	10YR 6/6	silt clay loam	NCM
UL.260	0-27	10YR 4/4	silt clay loam	NCM
UL.260	27-37	10YR 5/5	silt clay loam	NCM
UL.270	0-24	10YR 4/4	silt clay loam	NCM
UL.270	24-34	10YR 5/6	silt clay loam	NCM
UL.280	0-31	10YR 5/4	silt clay loam	NCM
UL.280	31-38	mottled 10YR 7/4	clay loam	NCM
UL.280	38-48	10YR 4/6	silty clay	NCM
UL.290	0-14	10YR 4/4	silt clay loam	NCM
UL.290	14-	10YR 4/6	silt clay loam, water	NCM
UL.300	0-30	10YR 4/3	clay loam	NCM; water
UL.300	30-40	10YR 5/6	silt loam	NCM; water
UL.310	0-31	10YR 4/4	silt clay loam	NCM
UL.310	31-41	10YR 6/5	silt clay loam	NCM
UL.313	0-15	10YR 4/3	silt clay loam	NCM
UL.313	15-30	10YR 4/6	silty clay	NCM
UL.313	30-40	10YR 3/2	silt clay loam	NCM
UL.30N	0-26	10YR 3/2	silty clay	Metal fragments (not collected)
UL.30N	26-36	10YR 5/6	silty clay	Metal fragments (not collected)
UL.30E	0-32	10YR 3/2	silty clay	NCM
UL.30E	32-42	10YR 5/6	silty clay	NCM
UL.30W	0-22	10YR 3/2	silt clay loam	NCM
UL.30W	22-42	10YR 3/3 and 10YR 4/6	silt clay loam	NCM
UL.30W	42-52	10YR 5/6	silt clay loam	NCM
UL.30S	0-29	10YR 3/2	silty clay	NCM
UL.30S	29-39	10YR 5/6	silty clay	NCM
UL.30NW	0-9	10YR 4/4	silt clay loam	NCM
UL.30NW	9-36	mottled 10YR 4/4, 4/6	silt clay loam	NCM
UL.30NW	36-46	10YR 4/6	silt clay loam	NCM
UL.30NE	0-19	10YR 3/2	silt clay loam	NCM
UL.30NE	19-29	10YR 5/6	silt clay loam	NCM
Potenial Archeological Site Area A (determined to not be an archeological site)				
A1	0-17	10YR 3/2	clay loam	NCM
A1	17-35	10YR 5/6	silty clay	NCM
A2	0-23	10YR 3/4	loam	NCM
A2	23-25	10YR 5/4	clay loam	NCM; root impasse
A3	0-35	10YR 3/2	clay loam	NCM
A3	35-50	10YR 5/6	silty clay, water	NCM; water seepage @ 38cm
A4	0-24	10YR 3/3	silt loam	NCM; many roots
A4	24-34	10YR 5/4	silty clay	NCM
Caughdenoy Road MDS 1 Site (Archeological Site Area B)				
B.N100E.050	0-19	10YR 4/4	silt loam	NCM
B.N100E.050	19-39	10YR 4/6	silt loam	NCM
B.N100.E100	0-19	10YR 4/4	silt loam	NCM
B.N100.E100	19-42	10YR 4/6	silt loam, water	NCM

Shovel Test	Depth (cm)	Soil Color	Soil Texture	Comments/Artifacts
B.N100.E150	0-33	10YR 4/4	silt loam	NCM
B.N100.E150	33-45	10YR 4/6	silt loam, water	NCM
B.N100.E.200	0-35	10YR 4/4	silt loam	NCM
B.N100.E.200	35-48	10YR 4/6	silt loam	NCM
B.N100.E.250	0-37	10YR 4/4	silt loam	NCM
B.N100.E.250	37-57	10YR 5/6	clay loam	NCM
B.N100.E.300	0-57	10YR 4/4	silt loam	NCM
B.N100.E.300	57-76	10YR 5/6	clay loam	NCM
B.N100.E.350	0-36	10YR 4/4	silt loam	3 wire and nail fragments
B.N100.E.350	36-48	10YR 4/6	silt loam, water	NCM
B.N125.E100	0-43	10YR 4/4, mottled	silt loam	NCM
B.N125.E100	43-56	10YR 4/6	silt loam, water	NCM
B.N125.E125	0-33	10YR 5/4	silt loam	NCM
B.N125.E125	33-46	10YR 7/4	silt loam	NCM
B.N125.E150	0-24	10YR 4/4	silt loam	NCM
B.N125.E150	24-35	10YR 4/6	silt loam, water	NCM
B.N150.E050	0-27	10YR 4/3	silt clay loam	a few coal fragments
B.N150.E050	27-43	10YR 5/4	silt clay loam	NCM
B.N150.E100	0-23	10YR 4/3	silt clay loam	NCM
B.N150.E100	23-36	10YR 5/6	silt clay loam	NCM; tree roots
B.N155.E125	0-24	10YR 4/3	silt clay loam	NCM; adjacent to north wall of Feature B1
B.N155.E125	24-39	10YR 5/4	silt clay loam	NCM; adjacent to north wall of Feature B1
B.N150.E.150	0-27	10YR 4/3	silt clay loam	NCM
B.N150.E.150	27-40	10YR 5/4	clay loam	NCM
B.N150.E.150	40-48	10YR 6/3	clay loam	NCM
B.N150.E200	0-28	10YR 4/3	silt clay loam	NCM
B.N150.E200	28-45	10YR 5/4	clay loam	NCM
B.N150.E250	0-43	10YR 4/3	silt loam	NCM
B.N150.E250	43-64	10YR 5/6	clay loam	NCM
B.N150.E300	0-36	10YR 4/3	silt loam	NCM
B.N150.E300	36-50	10YR 5/4	clay loam	NCM
B.N150.E350	0-31	10YR 4/3	silt loam	NCM
B.N150.E350	31-40	10YR 5/4	clay loam	NCM
B.N175.E100	0-25	10YR 4/3	silt loam	3 coal cinders, 1 plastic fragment
B.N175.E100	25-46	10YR 5/4	silt clay loam	NCM
B.N175.E125	0-28	10YR 4/3	silt loam	NCM
B.N175.E125	28-46	10YR 5/4	clay loam	NCM
B.N175.E125	46-56	10YR 6/3	clay loam	NCM
B.N175.E150	0-33	10YR 4/3	silt clay loam	NCM
B.N175.E150	33-51	10YR 5/4	clay loam	NCM
B.N200.E050	0-8	10YR 4/3	silt clay loam	roof debris
B.N200.E050	8-19	10YR 5/4	silt clay loam	roof debris
B.N200.E050	19-41	10YR 4/3	silt clay loam	NCM
B.N200.E050	41-62	10YR 5/4	silt clay loam	NCM
B.N200.E050	62-82	10YR 4/6	silt clay loam, wet	1 wire nail
B.N200.E050	82-96	10YR 5/6	silt clay loam, wet	NCM
B.N200.E075	0-7	10YR 4/3	silt loam, gravel, debris	heavy cement debris
B.N200.E075	7-		silt loam, gravel, debris	cement impasse
B.N200.E100	0-20	10YR 3/3	silt clay loam	wood and building debris
B.N200.E100	20-28	10YR 4/6	silt clay loam	coal and coal burning debris
B.N200.E100	28-61	10YR 4/3	silt clay loam	1 roof tile, 6 terracotta/redware sherds, brick fragments

Shovel Test	Depth (cm)	Soil Color	Soil Texture	Comments/Artifacts
B.N200.E100	61-70	10YR 4/6	silt clay loam	7 nails, 1 bullet casing
B.N200.E100	70-82	10YR 5/4	silt clay loam, wet	8 whiteware sherds, 7 glass fragments
B.N200.E150	0-24	10YR 4/3	silt clay loam	1 whiteware sherd, 2 nail fragments
B.N200.E150	24-34	10YR 4/6	silt clay loam	NCM
B.N200.E200	0-20	10YR 4/4	silt clay loam	NCM
B.N200.E200	20-30	10YR 5/6	silt clay loam	NCM: surface scatter of glass bottles nearby
B.N200.E250	0-26	10YR 4/4	silt clay loam	NCM
B.N200.E250	26-36	10YR 5/6	silt clay loam	NCM
B.N200.E300	0-15	10YR 4/4	silt clay loam	NCM
B.N200.E300	15-25	10YR 6/4	silt clay loam	NCM
B.N225.E050	0-12	10YR 4/4	silt clay loam	NCM
B.N225.E050	12-53	10YR 5/6	silt clay loam	NCM
B.N225.E050	53-63	10YR 6/4	silt clay loam	NCM
B.N225.E075	0-17	10YR 4/4	silt clay loam	cement building debris, cobbles
B.N225.E075	17-32	10YR 5/6	silt clay loam	NCM
B.N225.E075	32-42	10YR 6/4	silt clay loam	NCM
B.N225.E075	42-64	10YR 5/6	silt clay loam	2 nails, 1 metal chain, 14 glass fragments (vessel and flat)
B.N225.E075	64-74	10YR 6/4	silt clay loam	NCM
B.N225.E100	0-8	10YR 4/4	silt clay loam	NCM
B.N225.E100	8-	10YR 4/4	silt clay loam, cement debris, gravel	cement, rock, and gravel impasse
B.N250.E.050	0-30	10YR 4/3	clay loam	NCM
B.N250.E.050	30-47	10YR 4/4	clay loam	NCM
B.N250.E.050	47-57	10YR 3/2	silty clay, water	a few coal smudges in subsoil
B.N250.E075	0-20	10YR 3/2	silty clay	NCM: topsoil fill
B.N250.E075	20-40	10YR 5/6, 3/2	silty clay	NCM: disturbed
B.N250.E075	40-60	10YR 3/3, 3/2, 5/6	silty clay	fill w/ some coal ash and coal smudges; 3 bone fragments, 1 flat glass fragment
B.N250.E075	60-70	10YR 5/8	silty clay, water	NCM
B.N250.E100	0-30	10YR 3/2, 5/4	silty clay	1 bone fragment
B.N250.E100	30-54	10YR 4/6	silty clay, water	NCM
B.N250.E150	0-55	10YR 3/3	clay loam	coal ash, misc. metal fragments (not collected); on ground surface nearby - push-pile with buckets, paint cans, auto parts, bed springs, cables, bolts, bones, mason jars, wine bottles, etc.
B.N250.E150	55-65	10YR 4/3	silty clay	NCM
B.N250.E200	0-35	10YR 4/2	clay loam	1 glass vessel fragment, 1 ceramic fragment, 4 misc. metal fragments
B.N250.E200	35-48	10YR 5/6	silty clay, water	NCM
B.N300.E050	0-38	10YR 3/2	clay loam	road gravel/crushed stone, asphalt
B.N300.E050	38-48	10YR 4/3	silty clay	NCM
B.N300.E100	0-14	10YR 3/2	sandy loam	NCM
B.N300.E100	14-30	10YR 4/4	sandy loam, water	NCM
B.N300.E150	0-17	10YR 3/4	clay loam	NCM; on ground surface nearby - push-pile with truck parts, 5 gal. drums, tires, concrete blocks, etc.
B.N300.E150	17-30	10YR 5/6	silty clay	NCM
B.N300.E200	0-27	10YR 3/1	clay loam	NCM
B.N300.E200	27-40	10YR 6/3, 5/6	silty clay, water	NCM
B.N350.E050	0-30	10YR 4/3	clay loam	NCM
B.N350.E050	30-40	10YR 6/3, 5/8	silty clay, water	1 ceramic sherd (decorative tile)
B.N350.E100	0-29	10YR 4/2	clay loam	NCM; root impasse
B.N350.E150	0-35	10YR 4/2	clay loam	NCM
B.N350.E150	35-45	10YR 6/3, 5/4	silty clay	NCM

Shovel Test	Depth (cm)	Soil Color	Soil Texture	Comments/Artifacts
B.N350.E200	0-16	10YR 4/2	clay loam	large pieces of broken concrete slabs
B.N350.E200	16-40	10YR 6/3, 5/4	silty clay	NCM
B.N350.E250	0-34	10YR 4/2	clay loam	NCM
B.N350.E250	34-48	10YR 5/3, 5/6	silty clay	NCM
B.N350.E300	0-27	10YR 4/3	clay loam	NCM
B.N350.E300	27-41	10YR 5/3, 5/6	silty clay	NCM
B.N400.E050	0-35	10YR 4/2	clay loam	NCM
B.N400.E050	35-50	10YR 5/3, 5/6	silty clay	NCM
B.N400.E100	0-10	10YR 4/2	clay loam	NCM
B.N400.E100	10-24	10YR 6/6	silty clay, water	NCM
B.N400.E150	0-24	10YR 4/2	clay loam	NCM
B.N400.E150	24-34	10YR 6/4	silty clay	NCM
B.N400.N200	0-27	10YR 4/2	clay loam	NCM
B.N400.N200	27-37	10YR 5/6	silty clay	NCM
B.N400.E250	0-27	10YR 4/2	clay loam	NCM
B.N400.E250	27-37	10YR 5/6	silty clay	NCM
Caughdenoy Road MDS 2 Site (Archeological Site Area C)				
C.N200.E050	0-32	10YR 3/2	clay loam	NCM
C.N200.E050	32-42	10YR 5/8	silty clay	NCM
C.N200.E075	0-31	10YR 3/2	clay loam	1 stoneware sherd; large boulders below 31cm—impasse
C.N200.E100	0-28	10YR 3/2	clay loam	1 whiteware sherd, 1 vessel glass fragment
C.N200.E100	28-38	10YR 5/8	silty clay	NCM
C.N200.E125	0-33	10YR 2/2	silt loam	2 stoneware sherds, 2 flat glass fragments, 3 coal/slag fragments
C.N200.E125	33-56	10YR 5/6	silt loam, water	NCM
C.N200.E150	0-30	10YR 3/2	clay loam	1 flat glass fragment, 1 brick fragment (not collected)
C.N200.E150	30-40	10YR 5/8	silty clay	NCM
C.N200.E175	0-35	10YR 4/2	clay loam	1 whiteware sherd
C.N200.E175	35-47	10YR 5/6	clay loam	NCM
C.N200.E200	0-30	10YR 3/2	clay loam	NCM
C.N200.E200	30-40	10YR 5/8	silty clay	NCM
C.N200.E225	0-27	10YR 4/2	clay loam	NCM
C.N200.E225	27-41	10YR 5/6	clay loam	NCM
C.N200.E250	0-25	10YR 4/3	silt clay loam	NCM
C.N200.E250	25-35	10YR 6/4	silt clay loam	NCM
C.N200.E300	0-22	10YR 4/4	silt clay loam	NCM
C.N200.E300	22-32	10YR 6/4	silt clay loam	NCM
C.N200.E350	0-27	10YR 4/3	silt clay loam	NCM
C.N200.E350	27-37	10YR 6/4	silt clay loam	NCM
C.N225.E050	0-38	10YR 4/3	silt loam	possible cut stone
C.N225.E050	38-54	10YR 4/6	silt loam, water	NCM
C.N225.E075	0-34	10YR 3/3	silt loam	2 small brick fragments
C.N225.E075	34-61	10YR 7/5	silt loam	NCM
C.N225.E100	0-31	10YR 3/2	silt clay loam	NCM
C.N225.E100	31-43	10YR 6/3	sandy loam	NCM
C.N225.E100	43-53	10YR 5/8, 6/8, 4/2	silty clay	NCM
C.N225.E125	0-41	10YR 3/2	silt clay loam	2 small coal fragments
C.N225.E125	41-74	10YR 4/5	silt clay loam	NCM
C.N225.E150	0-36	10YR 3/2	clay loam	1 flat glass fragment, 1 vessel glass fragment, 2 stoneware sherds
C.N225.E150	36-54	10YR 5/8	clay loam	NCM
C.N225.E175	0-27	10YR 3/2	clay loam	2 flat glass fragments, 2 whiteware sherds
C.N225.E175	27-41	10YR 5/8	clay loam	NCM

Shovel Test	Depth (cm)	Soil Color	Soil Texture	Comments/Artifacts
C.N225.E200	0-21	10YR 3/2	silt loam	twined metal cable fragment (not collected)
C.N225.E200	21-44	7.5YR 4/6	silt loam	NCM
C.N225.E225	0-24	10YR 3/4	silt loam	1 metal button w/ 7 miscellaneous metal fragments
C.N225.E225	24-35	10YR 4/6	silt loam	NCM
C.N250.E025	0-37	10YR 3/2	clay loam	NCM
C.N250.E025	37-57	10YR 5/8	silty clay	NCM; medium-sized cobbles in subsoil
C.N250.E050	0-74	10YR 4/4	silt loam	NCM
C.N250.E050	74-84	10YR 5/6	silt loam	NCM
C.N250.E075	0-27	10YR 3/2	clay loam	1 flat glass fragment, concrete block (not collected)
C.N250.E075	27-45	10YR 5/8	silty clay	NCM
C.N250.E100	0-33	10YR 3/3	silt loam	8 samples of mortar/mortared stone
C.N250.E100	33-45	10YR 4/6	silt loam	NCM
C.N250.E125	0-47	10YR 3/2	clay loam	1 nail, 1 staple, 1 flat glass fragment, 1 mortar sample, 1 fabric strip
C.N250.E150	0-22	10YR 4/4	silt loam	1 whiteware sherd, 2 flat glass fragments
C.N250.E150	22-36	10YR 5/6	silt loam	NCM
C.N250.E175	0-8	10YR 3/3	silt clay loam	NCM
C.N250.E175	8-14	10YR 4/4	silt clay loam	NCM
C.N250.E175	14-33	10YR 3/2	silt clay loam	NCM
C.N250.E175	33-45	10YR 5/5	silt clay loam	NCM
C.N250.E200	0-27	10YR 4/4	silt loam	NCM
C.N250.E200	27-39	10YR 4/6	silt loam	NCM
C.N250.E225	0-30	10YR 4/2	clay loam	NCM
C.N250.E225	30-40	7.5YR 5/6	silty clay	NCM
C.N250.E250	0-20	10YR 4/4	silt clay loam	NCM
C.N250.E250	20-30	10YR 6/6	silt clay loam	NCM
C.N250.E300	0-25	10YR 4/4	silt clay loam	NCM
C.N250.E300	25-35	10YR 6/6	silt clay loam	NCM
C.N250.E350	0-20	10YR 4/3	silt clay loam	NCM
C.N250.E350	20-30	10YR 6/4	silt clay loam	NCM
C.N275.E050	0-60	10YR 4/3	silt clay loam	NCM
C.N275.E050	60-70	10YR 5/6	silt clay loam	NCM
C.N275.E075	0-80	10YR 4/3	silt clay loam	1 whiteware sherd, 1 bullet casing, 1 vessel glass fragment, 1 nail, 1 brick fragment, 1 metal fragment, 3 mortar fragments
C.N275.E075	80-90	10YR 5/8	silt clay loam	NCM
C.N275.E100	0-15	10YR 4/3	silt clay loam	1 ceramic sherd, 1 flat glass fragment, 1 nail, 1 small brick fragment; charcoal throughout
C.N275.E100	15-32	10YR 3/3	silt clay loam	NCM; disturbed; charcoal throughout
C.N275.E100	32-42	10YR 4/4	silt clay loam	NCM; compact, distrubed; possibly structureal/foundation rubble; charcoal throughout
C.N275.E125	0-18	10YR 3/3	silt clay loam	1 whiteware sherd, 2 terracotta/redware sherds, 2 flat glass fragments, 1 veesel glass fragment
C.N275.E125	18-63	10YR 4/4	silt clay loam	NCM
C.N275.E125	63-73	10YR 5/5	silt clay loam	NCM
C.N275.E150	0-32	10YR 4/3	silt clay loam	NCM; concrete on surface nearby; rock impasse @ 32cm
C.N275.E175	0-18	10YR 3/3	silt clay loam	1 nail
C.N275.E175	18-30	10YR 4/6	silt clay loam	NCM
C.N275.E200	0-23	10YR 4/3	silt clay loam	1 flat glass, 1 vessel glass, 1 mortar sample
C.N275.E200	23-33	10YR 5/8	silt clay loam	NCM
C.N275.E225	0-23	10YR 4/3	silt clay loam	NCM
C.N275.E225	23-33	10YR 6/6	silt clay loam	NCM
C.N300.E050	0-34	10YR 4/3	silt loam	NCM

Shovel Test	Depth (cm)	Soil Color	Soil Texture	Comments/Artifacts
C.N300.E050	34-45	10YR 5/4	silt loam	NCM
C.N300.E075	0-23	10YR 4/3	silt clay loam	3 whiteware sherds, 3 flat glass, 1 vessel glass fragment
C.N300.E075	23-33	10YR 6/4	silt clay loam	NCM
C.N300.E100	0-17	10YR 4/2	clay loam	NCM
C.N300.E100	17-35	10YR 5/6	silty clay	NCM
C.N300.E125	0-21	10YR 4/3	silt clay loam	NCM; heavy gravel
C.N300.E125	21-31	10YR 5/4	silt clay loam	NCM
C.N300.E150	0-45	10YR 4/2, 5/6	clay loam	NCM
C.N300.E175	0-45	10YR 4/3	silt clay loam	NCM
C.N300.E175	45-55	10YR 5/5	silt clay loam	NCM
C.N300.E200	0-37	10YR 4/2	silt loam	3 modern vessel glass fragments, styrofoam (not collected)
C.N300.E200	37-47	10YR 5/6	clay loam	NCM
C.N300.E225	0-22	10YR 4/3	silt clay loam	mortar & gravel; rock impasse @ 22cm
C.N300.E250	0-25	10YR 4/3	silt loam	NCM
C.N300.E250	25-35	10YR 5/8	silt loam	NCM
C.N300.E300	0-27	10YR 4/3	silt loam	NCM
C.N300.E300	27-37	10YR 5/8	silt loam	NCM
C.N300.E350	0-25	10YR 4/3	silt loam	NCM; near rubbish mound on surface - 5 gal. metal buckets, jars, miscellaneous metal
C.N300.E350	25-35	10YR 4/6	silt loam	NCM
C.N350.E050	0-25	10YR 3/3	silt clay loam	NCM; disturbed
C.N350.E050	25-75	10YR 5/3	silt clay loam	NCM
C.N350.E050	75-85	10YR 4/6	silt clay loam	NCM
C.N350.E100	0-10	10YR 4/3	silt clay loam	NCM
C.N350.E100	10-		compact gravel	gravel/paving impasse
C.N350.E150	0-35	10YR 4/3	silt clay loam	1 axe head
C.N350.E150	35-45	10YR 6/4	silt clay loam	1 shotgun shell (used)
C.N350.E200	0-33	10YR 4/3	silt clay loam	NCM
C.N350.E200	33-43	10YR 5/2	silt clay loam	NCM
C.N350.E250	0-25	10YR 4/4	silt clay loam	cement impasse @ 25cm
C.N350.E300	0-30	10YR 4/3	silt clay loam	NCM
C.N350.E300	30-40	10YR 6/4	silt clay loam	NCM
C.N400.E050	0-24	10YR 3/2	clay loam	NCM
C.N400.E050	24-37	10YR 5/8	silty clay	NCM
C.N400.E100	0-30	10YR 4/2	clay loam	1 flat glass fragment (not collected)
C.N400.E100	30-41	10YR 5/6	silty clay	NCM
C.N400.E150	0-14	10YR 4/2	clay loam	NCM; modern metal door on surface nearby
C.N400.E150	14-27	10YR 5/4, 6/3	silty clay	NCM
C.N400.E200	0-17	10YR 3/3	clay loam	concrete structural debris, distrubed
C.N400.E200	17-33	10YR 5/8	clay loam	NCM
C.N400.E250	0-13	10YR 3/3	silt loam	NCM; orange brick fragment, "SS" embossed on surface (not collected)
C.N400.E250	13-27	10YR 5/6	silt loam	NCM
C.N400.E300	0-25	10YR 4/3	clay loam	NCM
C.N400.E300	25-35	10YR 6/6	clay loam	NCM
C.N400.E350	0-30	10YR 4/2	clay loam	NCM
C.N400.E350	30	10YR 8/1	silt	NCM; dark lens between surface & subsoil layers
C.N400.E350	30-40	10YR 5/8	clay loam	NCM
C.N450.E050	0-22	10YR 3/4	silt loam	NCM
C.N450.E050	22-35	10YR 4/6	silt loam	NCM

Shovel Test	Depth (cm)	Soil Color	Soil Texture	Comments/Artifacts
C.N450.E100	0-27	10YR 3/2	silt loam	1 nail, 2 metal fragments, 1 flat glass, 1 rubber hose; modern rubbish mound on surface nearby - rubber, glass, jars, tires, chickenwire, etc.
C.N450.E100	27-37	10YR 4/6	silt loam, gravel	NCM
C.N450.E150	0-20	10YR 3/2	silt loam	4 brick fragments, 2 vessel glass, 1 flat glass fragment, 1 slate tile, 2 metal fragments
C.N450.E150	20-31	10YR 4/6	silt loam, gravel	NCM
C.N450.E200	0-19	10YR 3/3	silt loam	NCM
C.N450.E200	19-33	10YR 4/6	silt loam	NCM
C.N450.E250	0-19	10YR 3/3	silt loam	7 wire nail fragments
C.N450.E250	19-32	10YR 4/6	silt loam	NCM
C.N450.E300	0-11	10YR 3/2	silt loam	NCM
C.N450.E300	11-26	10YR 3/4	silt loam	NCM
C.N450.E300	26-49	10YR 4/6	silt loam	NCM
C.N450.E350	0-22	10YR 4/4	silt loam	4 nail and wire fragments
C.N450.E350	22-34	10YR 4/6	silt loam	NCM
C.N500.E050	0-22	10YR 4/3	silt clay loam	NCM
C.N500.E050	22-32	10YR 6/4	silt clay loam	NCM
C.N500.E100	0-26	10YR 4/3	silt clay loam	NCM
C.N500.E100	26-36	10YR 6/3	silt clay loam	NCM
C.N500.E150	0-24	10YR 4/3	silt clay loam	modern glass bottle, asphalt roofing, flat glass (not collected)
C.N500.E150	24-34	10YR 6/6	silt clay loam	NCM
C.N500.E200	0-17	10YR 4/3	silt clay loam	1 flat glass (not collected)
C.N500.E200	17-27	10YR 6/6	silt clay loam	NCM
C.N500.E250	0-16	10YR 4/3	silt clay loam	NCM
C.N500.E250	16-26	10YR 6/4	silt clay loam	NCM
C.N500.E300	0-15	10YR 4/3	silt clay loam	NCM
C.N500.E300	15-25	10YR 6/4	silt clay loam	NCM
C.N500.E350	0-28	10YR 4/3	silt clay loam	NCM
C.N500.E350	28-38	10YR 6/4	silt clay loam	NCM
C.N550.E050	0-30	10YR 4/3	silt loam	NCM
C.N550.E050	30-40	10YR 6/4	silt loam	NCM
C.N550.E100	0-28	10YR 4/3	silt loam	NCM
C.N550.E100	28-46	10YR 6/4	silt loam	NCM
C.N550.E150	0-40	10YR 3/3	silt loam	NCM
C.N550.E150	40-50	10YR 6/4	clay loam	NCM; pebbles w/ small cobbles in subsoil
C.N550.E200	0-38	10YR 3/3	silt loam	NCM; pebbles w/ small cobbles throughout
C.N550.E200	38-51	10YR 6/4	clay loam	NCM
C.N550.E250	0-28	10YR 3/3	silt loam	NCM
C.N550.E250	28-38	10YR 6/4	silt loam	NCM
C.N550.E300	0-32	10YR 4/3	silt loam	NCM
C.N550.E300	32-52	10YR 6/4	silt loam	NCM
C.N550.E350	0-23	10YR 3/3	silt loam	NCM
C.N550.E350	23-33	10YR 6/4	silt loam	NCM

Appendix D:

Shovel Test Field Forms (Scanned, on Enclosed CD)

Archeological Survey Field Record Sheet

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): TAK
Date: TH/05-30-2013

Location/Setting: AREA 1 - OPEN, UNPLOWED FIELD

Shovel Test	Depth cmbs	Soil Color	Soil Texture	Artifacts/Comments
1.1.01	0-25	10YR 4/1 . DG	Si Lo . HYDRIC . Apz	NCM . WATER @ 25 CMBS
1.1.02	0-25	10YR 4/3 . B	Si Lo . Apz	NCM
	25-36	10YR 5/6 . YB	Si Cl Lo	NCM . WATER @ 30 CMBS
1.03	0-36	10YR 4/3 . B	Si Lo . Apz	NCM
	36-47	10YR 5/6 . YB	Si Cl Lo	NCM . WATER @ 40 CMBS
1.04	0-10	/	/	WATER @ NEAR SURFACE
1.05	0-25	10YR 4/1 . DG	Si Lo . HYDRIC Apz	NCM . WATER @ 25 CMBS
1.06	0-10	/	/	WATER @ NEAR SURFACE
1.07	0-27	10YR 4/2 . DGB	Si Lo . Apz	NCM . WATER @ 27 CMBS
	27-34	10YR 5/6 . YB	Si Cl Lo	NCM
1.08	0-24	10YR 4/1 . DG	Si Lo . Apz	NCM
	24-32	10YR 5/6 . YB	Si Cl	NCM . WATER @ 30 CMBS
1.09	0-24	10YR 4/3 . B	Si Lo . Apz	NCM
	24-33	10YR 5/8 . YB	Si Cl	NCM . WATER @ 30 CMBS
1.10	0-30	10YR 4/1 . DG	Si Lo . Apz	NCM . WATER @ 25 CMBS
1.11	0-10	/	/	WATER @ NEAR SURFACE
1.12	0-10	/	/	WATER @ NEAR SURFACE
1.13	0-25	10YR 4/2 . DGB	Si Lo . Apz	NCM
	25-35	10YR 5/8 . YB	Si Cl	NCM . WATER @ 30 CMBS
1.14	0-10	/	/	WATER @ NEAR SURFACE
1.15	0-26	10YR 4/1 . DG	Si Lo . Apz	NCM
	26-34	10YR 5/8 . YB	Si Cl	NCM . WATER @ 30 CMBS
1.16	0-25	10YR 4/2 . DGB	Si Lo . Apz	NCM
	25-34	10YR 5/8 . YB	Si Cl	NCM . WATER @ 30 CMBS
1.17	0-24	10YR 4/2 . DGB	Si Lo . Apz	NCM . WATER @ 24 CMBS

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062

Project Name: Clay Business Park Phase IB

Excavator(s): FMM

Date: 6/4/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
1.1.18	0-22 cm 22-36	10YR 4/3, mottled 10YR 5/6	SiLo SiLo	— metal frag.
1.1.19	0-28 cm 28-45	10YR 3/3, mottled 10YR 4/6	SiLo SiLo	—
1.1.20	0-26 cm 26-40	10YR 3/3, mottled 10YR 4/6	SiLo SiLo	—
1.1.21	0-22 cm 22-34	10YR 3/3 10YR 4/6	SiLo SiLo	—
1.1.22	0-23 cm 23-36	10YR 3/3 10YR 4/6	SiLo SiLo	Aluminum can fragment
1.1.23	0-26 cm 26-44	10YR 3/3 10YR 4/6, mottled	SiLo SiLo	— adj. to fence
1.1.24	0-30 cm 30-46	10YR 3/1 10YR 4/6	SiLo SiLo	~~NO DIG - rosebush patch~~
1.1.25	—	—	—	NO DIG - rosebush patch
1.1.26	0-24 cm 24-41	10YR 3/3 10YR 4/6	SiLo SiLo	—
1.1.27	0-33 cm 33-46	10YR 3/3 10YR 4/6	SiLo SiLo	—
1.1.28	0-22 cm 22-46	10YR 4/3 10YR 4/6	SiLo SiLo	—
1.1.29	0-19 cm 19-32	10YR 4/3 10YR 4/6	SiLo SiLo	— adj. to fence

draw a line to separate shovel tests

SEE REVERSE

EDR Project # 12062 – Clay Business Park Phase IB   Exc.: FMM   6/4/13

1.1.30	0-22cm	10YR 4/3	SiLo	—
	22-33	10YR 4/6	SiLo	
1.1.31	0-28cm	10YR 4/3	SiLo	—
	28-40	10YR 4/6	SiLo	
1.1.32	0-19cm	10YR 4/3	SiLo	—
	19-29	10YR 4/6	SiLo	
1.1.33	0-20cm	10YR 3/4	SiLo	—
	20-41	10YR 4/6	SiLo	on treeline
1.1.34	0-22cm	10YR 3/4	SiLo	—
	22-32	10YR 4/6	SiLo	on treeline
1.1.35	0-21cm	10YR 4/4	SiLo	—
	21-35	10YR 4/6	SiLo	
1.1.36	0-28cm	10YR 4/4	SiLo	—
	28-43	10YR 4/6	SiLo	

6/5/13

1.1.37	0-13cm	10YR 3/3	SiLo	nail/staple; heavy tree roots
	13-33	mottled 10YR 4/3	SiLo	
1.1.38	0-11cm	10YR 4/4	SiLo	—
	11-27	10YR 4/6, mottled	SiLo	
1.1.39	0-36cm	10YR 4/3	SiLo	—
	36-51	10YR 4/6	SiLo	
1.1.40	0-30cm	10YR 4/3	SiLo	—
	30-44	10YR 4/6, mottled	SiLo	
1.1.41	0-19cm	10YR 4/3	SiLo	—
	19-36	10YR 4/6	SiLo	"word up"
1.1.42	0-10cm	10YR 4/3	SiLo	—
	10-30	10YR 4/6, mottled	SiLo	HEAVY tree roots

Archeological Survey Field Record Sheet

edr

edr Project #: 12062 Excavator(s): FMM

Project Name: Clay Business Park Phase IB Date: 6/5/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
1.1.43	0-22cm 22-35	10YR 3/4 10YR 4/6	SiLo SiLo	—
1.1.44	0-16cm 16-30	10YR 3/4 10YR 4/6	SiLo SiLo	—
1.1.45	0-28cm 28-49	10YR 3/4 10YR 4/6, mottled	SiLo SiLo	likely charcoal fragment
1.1.46	0-25cm 25-38	10YR 3/3 10YR 4/6	SiLo Sandy Loam	—
1.1.47	0-19cm 19-28	10YR 3/3 10YR 4/6	SiLo SiLo	— verymoist
1.1.48	0-27cm 27-46	10YR 3/3 10YR 4/6	SiLo SiLo	— verymoist
1.1.49	0-41cm 41-54	10YR 3/3 10YR 6/2, mottled	SiLo SandyLoam	—
1.1.50	0-23cm 23-38	10YR 3/3 10YR 4/6	SiLo SiLo	—
1.1.51	0-21cm 21-26 26-39	10YR 3/3 10YR 2/1 10YR 5/6	SiLo SiLo sandyLoam	near-black soillens (?) → 21-26
1.1.52	0-24cm 24-	10YR 2/2 water	SiLo	verywet; insidetreeline
1.1.53	0-26cm 26-	10YR 2/2 water	SiLo	hydric
1.1.54	0-20cm 20-35	10YR 2/2 10YR 4/6	SiLo SandyLoam	—

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #:	12062	Excavator(s):	FMM
Project Name:	Clay Business Park Phase IB	Date:	6/5/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
1.1.55	0-31 cm 31-46	10YR 3/3 10YR 4/6	Silo sandy silt	—
1.1.56	0-22cm 22-34	10YR 3/3 10YR 4/6	silo silo	—
1.1.57	0-30cm 30-46	10YR 4/4 10YR 4/6	silo silo	—

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062

Project Name: Clay Business Park Phase IB

Excavator(s): FMM

Date: 6/10/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
1.1.58	0-19cm 19-35	10YR 3/3 10YR 4/6	silo, wet silo, hydric	—
1.1.59	0-24cm 24-35	10YR 4/3 10YR 4/6	silo silo	—
1.1.60	0-22cm 22-35	10YR 4/3 10YR 4/6	silo silo	—
1.1.61	0-25 cm 25-37	10YR4/3 10YR 4/6	silo silo	—
1.1.62	0-29cm 29-41	10YR 3/3 10YR 6/4	silo silo, hydric	—
1.1.63	0-32cm 32-42	10YR 3/3 10YR 6/4	silo silo, hydric	—
1.1.64	0-28cm 28-39	10YR 4/3 10YR 4/6	silo silo	—
1.1.65	0-24cm 24-34	10YR4/3 10YR4/6	silo silo	—
1.1.66	0-28cm 28-38	10YR4/3 10YR 4/6	silo silo	— w/Sam
1.1.67	0-27 27-37	10YR 4/3 10YR4/6	silo silo, hydric	—
1.1.68	0-23 23-33	10YR 4/3 10YR4/6	silo silo, hydric	— w/Sam
1.1.69	0-29 29-39	10YR4/3 10YR 4/6	silo silo, hydric	—

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): FMM
Date: 6/10/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
1.1.70	0-26cm 26-36	10YR4/3 10YR5/3	SiLo SiLo	— w/sam
1.1.71	0-30cm 30-43	10YR 4/3 10YR 4/6	SiLo SiLo, hydric	—
1.1.72	0-22cm 22-32	10YR 4/3, mottled 10YR 6/4	SiLo SiLo	—
1.1.73	0-43cm 43-49	10YR4/3 10YR6/4	SiLo SiLo, hydric	—
1.1.74	0-28cm 28-39	10YR4/3 10YR4/4	SiLo SiLo, hydric	—
1.1.75	0-22cm 22-36	10YR4/3 10YR4/6	SiLo SiLo, hydric	—
1.1.76	0-26cm 26-39	10YR4/3 10YR4/6	SiLo SiLo	—
1.1.77	0-26cm 26-39	10YR4/3 10YR4/6	SiLo SiLo, hydric	—
1.1.78	0-16cm 16-29	10YR4/3 10YR4/6	SiLo SiLo	—
1.1.79	0-23cm 23-37	10YR4/3 10YR4/6	SiLo SiLo	—
1.1.80	0-26cm 26-42	10YR4/3 10YR4/6	SiLo SiLo	—
1.1.81	0-24cm 24-36	10YR4/3 10YR4/6	SiLo SiLo	—

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062
Excavator(s): FMM
Project Name: Clay Business Park Phase IB
Date: 6/11/13

Location/Setting:

SiLo → Silty Loam
SaLo → Sandy Loam

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
1.1.82	0-24cm 24-36	10YR 4/3 10YR 4/6	SiLo SiLo, hydric	—
1.1.83	0-30cm 30-43	10YR 4/3 10YR 4/6	SiLo SiLo	— near small collection of boulders or fieldstones, ~3m from edge of field-forest boundary
1.1.84	0-29cm 29-39	10YR 3/2 10YR 4/6	SiLo SaLo, inundated	— field
1.1.85	0-25cm	10YR 3/2	standing water	—
1.1.86	0-32cm 32-42	10YR 3/2 10YR 4/6	SiLo SaLo, inundated	—
1.1.87	0-29cm 29-39	10YR 3/2 10YR 4/6	SiLo SaLo, inundated	—
1.1.88	0-31cm 31-41	10YR 3/2 10YR 4/6	SiLo SaLo, inundated	—
1.1.89	0-25cm	10YR 3/2	standing water	—
1.1.90	0-25cm 25-46	10YR 3/2 10YR 4/6	SiLo SiLo, inundated	—
1.1.91	0-18cm 18-35	10YR 3/3 10YR 4/6	SiLo SiLo	— back in the ~~USSR~~ woods
1.1.92	0-18cm 18-32	10YR 3/3 10YR 6/4	SiLo SiLo	—
1.1.93	0-12cm 12-36	10YR 3/3 10YR 4/6, mottled	SiLo SiLo, inundated	—
1.1.94	0-9cm 9-19	10YR 3/3 10YR 4/6, mottled	SiLo SiLo	— heavy roots
1.1.95	0-32cm 32-46	10YR 4/4 10YR 4/6	SiLo SiLo, inundated	—
1.1.96	0-16cm 16-3	10YR 4/4 10YR 4/6	SiLo SiLo	— Aaron dug—first dry, root-free STP today
1.1.97	0-20cm 20-39	10YR 4/4 10YR 4/6	SiLo SiLo	—

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): FMM
Date: 6/11/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
1.1.98	0-29cm 29-43	10YR4/4, mottled 10YR6/4	SiLo SaLo	—
1.1.99	0-15cm 15-25	10YR3/2 10YR7/4	SiLo SiLo	— w/Diane
1.1.100	0-25cm	10YR3/3	standing water	—
1.1.101	0-25cm	10YR 3/3	standing water	—
EOT				
2.1.06	NA	NA	NA	standing water
2.1.07	0-35cm 35-46	10YR4/2 10YR 6/4	SiLo SiLo	—
2.1.08	0-27cm 27-38	10YR4/2 10YR6/4	SiLo SiLo	—
2.1.09	0-35cm 35-45	10YR4/2 10YR6/4	SiLo SiLo, inundated	—
2.1.10	0-5cm		gravel	within 25 ft of trans. line tower; heavy gravel
2.1.11	NA	NA	NA	within trans. line tower footprint

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062
Excavator(s): EL, DB/AK
Project Name: Clay Business Park Phase IB
Date: 5/10/17

Location/Setting:
open field ~~so~~ center line of study area for BA 1. North of Rt 31

Shovel Test	Depth CM	Soil Color	Soil Texture	Artifacts/Comments
1.2.01	0-29	10YR 4/3	Silt loam	ncm
	29-41	10YR 5/8	~~silty clay~~	"
1.2.02	0-27	"	"	"
	27-38	"	"	"
1.2.03	0-28	10YR 4/3	silt loam	ncm - filling with water
1.2.04	NA	NA	NA	Surface water
1.2.05	0-26	10YR 4/3	silt loam	ncm - filling with water
1.2.06	NA	NA	NA	surface water
1.2.07	0-17	10YR 4/3	silt loam	ncm - filling with water
1.2.08	0-22	10YR 4/3	Silt loam	ncm
	22-34	10YR 5/8	Silt loam	ncm
1.2.09	0-29	10YR 4/3	Silt loam	ncm
	29-44	10YR 5/8	Silt Clay	ncm
1.2.10	0-27	10YR 4/3	"	ncm
	27-37	10YR 5/6	"	ncm - fill with water
1.2.11	0-30	10YR 4/3	Silt loam	ncm - fill with water
1.2.12	0-19	10YR 4/3	Silt loam	ncm - "
1.2.13	0-21	"	"	" "
1.2.14	0-18	10YR 4/3	"	ncm
	18-27	10YR 5/8	silty Clay	ncm - water
1.2.15	0-4	10YR 4/3	silt loam	ncm - water
1.2.16	0-10	10YR 4/3	"	"

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s):
Date:

Location/Setting:
See previous

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
1.2.17	0-21	10YR 4/3	silt loam	ncm
	21-34	10YR 5/6	silty clay	ncm - water
1.2.18	0-27	10YR 4/3	silt loam	ncm - water
1.2.19	0-30	10YR 4/3	silt loam	ncm
	30-41	10YR 5/8	silty clay	ncm
1.2.20	0-24	10YR 4/3	silt loam	ncm
	24-27	10YR 5/8	silty clay	ncm - water
1.2.21	0-4	10YR 4/3	silt loam	ncm - water
1.2.22	0-29	10YR 4/3	silt loam	ncm
	29-32	10YR 5/6	silty clay	ncm - water

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): SCH
Date: 6/4/2013

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
1.2.23	0-22 22-32	10yr4/3 10yr5/6	Sicllo Sicllo	Ø
1.2.24	0-13 13-20 20-30	10yr4/3 10yr5/2 10yr5/6	Sicllo Sicllo + 5% gravel Sicllo	Compacted internal layer likely due to previous pasturage, fenced area animal feeder visible Ø
1.2.25	0-22 22-32	10yr4/3 10yr5/6	Sicllo + 5% gravel Sicllo	Ø
1.2.26	0-20 20-30	10yr4/3 10yr5/6	Sicllo + 5% gravel Sicllo	Ø
1.2.27	0-31 31-41	10yr4/3 10yr5/6	Sicllo + 5% gravel Sicllo	Ø
1.2.28	0-28 28-38	10yr4/3 10yr5/6	Sicllo Sicllo	Ø
1.2.29	0-21 21-31	10yr4/3 10yr5/6	Si Lo Sicllo	Ø
1.2.30	0-23 23-33	10yr4/3 10yr5/6	Si lo Sicllo	Ø
1.2.31	0-22 22-32	10yr4/3 10yr5/6	Si Lo Sicllo	Ø
1.2.32	0-30 30-40	10yr4/3 7.5yr5/6	Sicllo Sicllo	Ø

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): SCH
Date: 6/4/2013 - 6/5/2013

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
1.2.33	0-14 14-24	10yr 4/3 10yr 5/6	Sicllo Sicllo	Ø
1.2.34	0-16 16-18	10yr 4/3 10yr 5/6	Silo Silo	Ø
1.2.35	0-22 22-32	10yr 4/3 10yr 5/6	Sicllo Sicllo	Ø
1.2.36	0-14 14-25	10yr 4/3 10yr 5/6	Sicllo Sicllo	Ø
1.2.37	0-19 19-29	10yr 4/3 10yr 5/6	Sicllo Sicllo	Ø
1.2.38	0-23 23-33	10yr 4/3 10yr 5/6	Sicllo Sicllo	Ø
1.2.39	0-22 22-32	10yr 4/3 10yr 5/6	Sicllo Sicllo	Ø
1.2.40	0-24 24-34	10yr 4/3 10yr 5/6	Sicllo Sicllo	Ø
1.2.41	0-29 29-39	10yr 4/3 10yr 5/6	Sicllo Sicllo	Ø
1.2.42	0-34 34-44	10yr 4/3 10yr 6/5	Sicllo Sicllo	Ø

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #:	12062	Excavator(s):	SCH
Project Name:	Clay Business Park Phase IB	Date:	6/5/2013

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
1.2.43	0-25 25-35	10yr 4/3 10yr 5/6	Sicllo Sicllo	Ø
1.2.44	0-18 18-28	10yr 4/3 10yr 5/6	Sicllo Sicllo	Ø
1.2.45	0-22 22-32	10yr 4/3 10yr 5/4	Sicllo + 5% gravel 2% cobbles Sicllo	Ø
1.2.46	0-30 30-40	10yr 3/3 10yr 5/5	Silo Sicllo	Ø
1.2.47	0-15 15-25	10yr 4/3 10yr 5/6	Sicllo Sicllo	Ø
1.2.48	0-27 27-37	10yr 4/3 10yr 5/6	Sicllo Sicllo	Ø
1.2.49	0-24 24-34	10yr 4/3 10yr 5/6	Sicllo Sicllo	Ø
1.2.50	0-32 32-43 43-53	10yr 4/3 10yr 2/2 10yr 5/6	Sicllo Sicllo Sicllo	apparent agricultural filling of lowarea Ø
1.2.51	0-27 27-35 35-45	10yr 4/2 10yr 2/2 10yr 5/6	Sicllo Sicllo Sicllo	Ø

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): SCH
Date: 6/5/2013
Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
1.2.52	0-17 17-30	10yr 4/3 10yr 5/4	Siclo Siclo	Ø
1.2.53	0-14 14-24	10yr 4/3 10yr 5/5	Siclo Siclo	Ø
1.2.54	0-15 15-25	10yr 4/3 10yr 5/6	Siclo Siclo	Ø
1.2.55	0-40 40-6	10yr 4/3 Water table	Siclo	Ø
1.2.56	0-24 24-34	10yr 4/3 10yr 5/6	Siclo Siclo	Ø
1.2.57	0-22 22-32	10yr 4/3 10yr 5/6	Siclo Siclo	Ø
1.2.58	0-17 17-27	10yr 4/3 10yr 5/6	Siclo Siclo	Ø
1.2.59	0-24 24-34	10yr 4/3 10yr 5/6	Siclo Siclo	Ø
1.2.60	0-22 22-32	10yr 4/3 10yr 5/6	Siclo Siclo	Ø
1.2.61	0-30 30-40	10yr 4/3 10yr 5/6	Siclo Siclo	Ø

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): Scit
Date: 6/5/2013

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
1, 2, 62	0-20 20-30	10yr 4/3 10yr 5/6	Si lo Sicl lo	Ø
1.2.63	0-22 22-34	10yr 4/2 10yr 5/6	Si lo Sicl lo	Ø
1.2.64	0-20 20-30	10yr 3/3 10yr 5/6	Sicl lo Sicl lo	Ø
1.2.65	0-26 26-36	10yr 4/3 10yr 5/6	Sicl lo Sicl lo	Ø

draw a line to separate shovel tests

:cheological Survey Field Record Sheet

edr

edr Project #: 12062

Excavator(s): SCH

Project Name: Clay Business Park Phase IB

Date: 6/10/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
1.2.66	0-20 20-30	10yr 4/4 10yr 5/6	Sicllo Sicllo	Ø
1.2.67	0-22 22-32	10yr 4/4 10yr 5/6	Sicllo Sicllo	Ø
1.2.68	0-24 24-34	10yr 4/4 10yr 5/6	Sicllo Sicllo	Ø
1.2.69	0-23 23-34	10yr 4/4 10y 5/6 + water	Sicllo Sicllo	Ø
1.2.70	0-18 18-28	10yr 4/4 10yr 5/6	Sicllo Sicllo	Ø
1.2.71	0-24 24-34	10yr 4/4 10yr 5/6 + water	Sicllo Sicllo	Ø
1.2.72	0-18 18-28	10yr 4/4 7.5yr 5/5	Sicllo Sicllo	Ø
1.2.73	0-28 28-38	10yr 4/4 10yr 5/6	Sicllo Sicllo	Ø
1.2.74	0-17 17-26	10yr 4/4 10yr 5/8	Sicllo Sicllo	Ø
1.2.75	0-22 22-32	10yr 4/4 10yr 5/8	Sicllo Sicllo	Ø
1.2.76	0-14 14-24	10yr 4/4 10yr 5/6	Sicllo Sicllo	Ø

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): SCH
Date: 6/10/13 - 6/11/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
1.2.77	0-22 22-32	10yr 4/4 10yr 5/6 + Water	Sicl lo Sicl lo	Ø
1.2.78	0-18 18-28	10yr 4/4 10yr 5/6	Sicllo Sicllo	Ø
1.2.79	0-20 20-30	10yr 4/4 10yr 5/6	Sicl lo Sicl lo	Ø
1.2.80	0-24 24-34	10yr 4/4 10yr 5/6	Sicllo Sicllo	Ø
1.2.81	0-20 20-30	10yr 4/4 10yr 5/6	Sicllo Sicllo	Ø
1.2.82	0-21 21-31	10yr 4/4 10yr 5/6	Sicllo Sicllo	Ø
1.2.83	0-26 26-36	10yr 4/4 10yr 5/6 + Water	Sicllo Sicllo	Ø
1.2.84	0-10	10yr 4/4	Sicllo	Ø
Not dug due to hole filling w water				
1.2.85	0-20 20-30	10yr 4/4 10yr 5/6 + Water	Sicllo Sicllo	Ø

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062 Excavator(s): SCH
Project Name: Clay Business Park Phase IB Date: 6/11/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
1.2.86	0-24 24-34	10 yr 4/4 10 yr 5/6 + water	Sicl lo Sicl lo	Ø
1.2.87	0-10	10 yr 4/4 + Standing Water	Cap flipped Not dug sicllo	Ø
1.2.88	0-10	10 yr 4/4 + Standing Water	Cap flipped not dug Sicllo	Ø
1.2.89	0-22 22-34	10 yr 4/4 10 yr 5/6 + water	Sicl lo Sicl lo	Ø
1.2.90	0-27 27-37	10 yr 4/4 10 yr 5/6 + water	Sicllo Sicllo	Ø
1.2.90	0-25 25-35	10 yr 4/4 10 yr 5/6 + water	Sicllo Sicl lo	Ø
1.2.91	0-10	10 yr 4/4 10 yr 5/6 + water	Sicllo Sicl lo	Ø
1.2.92	0-30 30-40	10 yr 4/4 10 yr 5/6 + Water	Sicllo Sicllo	Ø

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062

Project Name: Clay Business Park Phase IB

Excavator(s): SCH

Date: 6/11/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
1.2.93	0-26 26-30	10yr 4/4 10yr 5/6 + water	Sicl lo Sicl lo	Ø
1.2.94	0-22 22-34	10yr 4/4 10yr 5/6 + water	Sicl lo Sicl lo	Ø
1.2.95	0-21 21-31	10yr 4/4 10yr 5/6	Sicl lo Sicl lo	Ø
1.2.96	0-17 17-27	10yr 4/4 10yr 5/6	Sicl lo Sicl lo	Ø
1.2.97	0-12 12-22	10yr 4/4 10yr 5/6 + roots	Sicl lo Sicl lo	Ø
1.2.98	0-16 16-26	10yr 4/4 10yr 5/6	Sicl lo Sicl lo	Ø
1.2.99	0-16 16-26	10yr 4/4 10yr 5/6	Sicl lo Sicl lo	Ø
1.2.100	0-18 18-28	10yr 4/4 10yr 5/6	Sicl lo Sicl lo	Ø
1.2.101	0 –	Standing Water	small stream	Ø

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): SCH
Date: 6/11/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
1.2.102 1.2.103 1.2.104	0-10 10-	10yr 4/4 Standing Water	flipped top filled w water	Ø
1.2.105	0-16 16-26	10yr 4/3 10yr 6/6	Sicllo Sicllo	Ø
2.2.06 2.2.07	Not dug standing water			Ø
2.2.08	0-18 18-20	10yr 4/3 10yr 5/6	Sicllo Sicllo	Ø
2.2.09	0-22 22-32	10yr 4/3 10yr 5/6	Sicllo Sicllo	Ø
2.2.10	0-20 20-30	10yr 4/3 10yr 5/6	Sicllo Sicllo	Ø
2.2.11	Not dug standing water			
2.2.12	0-10 10-	10yr 4/3 Water	Sicllo Ø	Ø

draw a line to separate shovel tests

cheological Survey Field Record Sheet

edr

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): DB
Date: 5-30-13
Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
1.3.01	0-26 26-40	10YR 4/2 dk g br 10YR 5/3, 5/6 br yibr	Si CL Lo Si CL	— water seepage
1.3.02	0-35 35-47	Same	Same	Same
1.3.03	0-30 30-40	Same	Same	Same
1.3.04	0-24	Same	Same	water
1.3.05	0-24	Same	Same	Water
1.3.06	0-26	Same	Same	Water
1.3.07	0-30 30-40	Same Same	Same	— Water seepage
1.3.08	0-30 30-40	Same Same	Same	=
1.3.09	0-39 39-50	Same Same	Same	Small pebbles/cobbles —
1.3.10	0-30 30-40	Same Same	Same	Sm. pebbles/cobbles —
1.3.11	0-30 30-43	Same Same	Same	=
1.3.12	0-40 40-53	Same Same	Same	Water Seepage
1.3.13	0-24	Same	Same	Water
1.3.14	0-24	Same	Same	Water
1.3.15	0-24	Same	Same	Water

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062
Excavator(s): DB
Project Name: Clay Business Park Phase IB
Date: 5-30-13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
1.3.16	0-24	10YR 4/2 dk gr br	Sa cl Lo	water
1.3.17	0-24	Same	Same	Water
1.3.18	0-30	Same	Same	water
1.3.19	0-28	Same	Same	water
1.3.20	0-30	Same	Same	Water
1.3.21	0-30	Same	Same	water
1.3.22	0-33	Same	Same	water
1.3.23	0-31	10yr 4/2 10yR 5/3, 5/6	Sa cl lo Si cL	moist
EOT				

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): DB
Date: 6-4-13

Location/Setting:

area 1 - continued

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
1.3.24	0-6 6-17 17-30	10yr 3/3 7.5y 5/4 10yr 6/8	silo sa lo sicllo	In old pasture Area behind sheds/barn
1.3.25	0-17 17-31	10yr 3/2 10yr 4/6	silo cl si	In front of Chicken coop/shed 5% gravel
1.3.26	0-15 15-25	10yr 3/3 10yr 4/6	silo silo	at a wood line -
1.3.27	0-15 15-25	Same	Same	Same -
1.3.28	0-33 33-46	same	Same	Same 5% pebbles/small cobbles
1.3.29	0-25 25-35	same	siLo cL si	5% pebbles/sm. cobbles
1.3.30	0-30 30-40	Same	Same	In open Field again where line V's
1.3.31	0-27 27-37	Same	Same	Inside wire fence area -
1.3.32	0-27 27-37	Same	Same	outside wire fence Area -
1.3.33	0-12 12-24	10yr 3/3 10yr 5/4	silo silo	in an old Farm Road that runs inside tree line.
1.3.34	0-20 20-30	Same	Same	Same place
1.3.35	0-34 34-44	Same	same	other side of treeline + other open Field under an ancient maple

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062 Excavator(s): DB

Project Name: Clay Business Park Phase IB Date: 6-4-13 6.5-13

Location/Setting: open field

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
1.3.36	0-24 24-34	10yr 3/3 10yr 5/4	Silo Silo	open field —
1.3.37	0-27 27-39	10yr 3/2 10yr 5/6	Silo Silo	— —
1.3.38	0-24 24-40	10yR 3/3 10yR 4/6	Silo CL Si	— —
1.3.39	0-27 27-41	Same	Same	=
XXXXXXX		6-5-13	XXX	XXXXX
1.3.40	0-27 27-37	10yr 3/4 10yr 6/3	Silo Silo	=
1.3.41	0-26 26-40	Same	Same	=
1.3.42	0-30 30-40	Same	Same	=
new pattern starts 1.3.43	0-30 30-40	Same	Same	= an extra STP w dug on line 3 between 42-43
1.3.44	0-38 38-51	10yR 3/3 10yr 4/6	Same	=
1.3.45	0-30 30-40	10yr 3/3 10yr 5/4	CLLo CL Si	— —
1.3.46	0-38 38-54	Same	Same	=
1.3.47	0-33 33-43	Same	Same	=
1.3.48	0-27 27-37	Same	Same	=

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): DB
Date: 6-5-13

Location/Setting: open field to woodline & woods

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
1.3.49	0-33 33-43	10yr 3/3 10yr 5/4	cl lo cl si	— —
1.3.50	0-33 33-43	10yr 3/2 10yr 4/4	cl lo cl si	— —
1.3.51	0-38 38-48	same	same	=
1.3.52	0-40 40-50	10yr 3/3 10yr 5/4	si lo si lo	just inside woodline
1.3.53	0-30 30-40	same	same	In woods
1.3.54	0-40 40-50	same	si cl si cl	same soils moist
1.3.55	0-20 20-30	same	same	same
1.3.56	0-33 33-47	same	same	=
1.3.57	0-24 24-36	same	same	=
1.3.58	0-24 24-34	same	same	=
1.3.59	0-37 37-47	same	same	=
1.3.60	0-33 33-47	same	same	=
1.3.61	0-30 30-43	same	same	

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): DB
Date: 6-5-13

Location/Setting: In woods

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
1.3.62	0-34 34-44	10yR 3/2 10yR 5/4	cLlo Si CL	Soils moist
1.3.63	0-34 34-44	Same	Same	Same
1.3.64	0-23 23-33	Same	Same	Same

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062

Excavator(s): DB

Project Name: Clay Business Park Phase IB

Date: 6-10-13

Location/Setting: woods/brush/wetlands

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
1.3.65	0-28 28-46	10yr 3/2 10yr 5/4	CLLo SiCL	— water @ 38 cmbs
1.3.66	0-24 24-38	10yr 3/3 10yr 5/4, 5/6	CLLo SiCL	—
1.3.67	0-24 24-37	same	same	water @ 26 cmbs
1.3.68	0-22 22-26	same	same	water @ 18 cmbs
1.3.69	0-20	10yr 3/2	CLLo	water @ 20 cmbs
1.3.70	0-30 30-40	10yr 3/2 10yr 5/6	CLLo SiCL	water
1.3.71	0-37 37-50	same	same	water
1.3.72	0-30 30-40	10yr 3/3 10yr 5/4	CLLo SiCL	—
1.3.73	0-25 25-37	same	same	—
1.3.74	0-27	10yr 3/3 10yr 5/4	CLLo SiCL	—
1.3.75	0-30 30-40	10yr 5/2 10yr 6/3, 5/6	CLLo SiCL	—
1.3.76	0-28 28-38	same	same	—
1.3.77	0-30 30-40	same	same	—
1.3.78	0-30 30-40	same	same	—
1.3.79	0-30 30-40	same	same	—
1.3.80	0-30 30-40	same	same	—

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): DB
Date: 6-11-13

Location/Setting: Woods /open Field

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
1.3.81	0-30 30-40	10yr 5/2 10yr 6/3, 5/6	Cl Lo SiCL	— Water
1.3.82	0-30 30-40	Same	Same	— Water
1.3.83	0-30 30-40	Same	Same	Water Last one in woods
1.3.84	0-30 30-49	10yr 3/2 10yr 5/6	Same	— In Field
1.3.85	0-24	Same	Same	Water @ 24 cmbs
1.3.86	0-20	Same	Same	Water @ 20 cmbs
1.3.87	0-10	Same	Same	Water @ 10 cmbs
1.3.88	0-10	Same	Same	Water @ 10cmbs
1.3.89	0-30 30-34	Same	Same	Water @ 34 cmbs
1.3.90	0-30 30-37	Same	Same	Water @ 37 cmbs
1.3.91	0-30 30-36	Same	Same	Water @ 36 cmbs
1.3.92	0-30 30-35	Same	Same	Water @ 35 cmbs
1.3.93	0-30 30-43	Same	Same	Wet
1.3.94	0-31 31-43	Same	Same	Wet
1.3.95	0-32 32-43	Same	Same	Wet

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062 Excavator(s): DB

Project Name: Clay Business Park Phase IB Date: 6-11-13

Location/Setting: Woods / Field

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
1,3,95	0-33 33-43	10yr 3/2 10yr 5/6	CLLo SiCL	Wet
1,3,96	0-35 35-45	Same	Same	Wet
1,3,97	0-40 40-50	Same	Same	Water Seepage - last one in Field -
1,3,98	0-15	Same	Same	In Trees - next to large coil of barbed wire water @ 15 cmbs
1,3,99	0-33 33-40	10yr 5/2 10yr 5/6, 6/3	Same	water @ 40 cmbs, next to large, old tree
1,3,100	0-30	Same	Same	water @ 30 cmbs and next to large old tree
1,3,101	0-25 25-35	Same	Same	Wet
1,3,102	—	—	—	In Several inches of standing water
1,3,103	0-33 33-40	10yr 3/1 10yr 5/4	Same	water @ 40 cmbs
1,3,104	0-28 28-34	Same	Same	Water
1,3,105	0-27 27-37	Same	Same	—
	EOT			

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062

Project Name: Clay Business Park Phase IB

Excavator(s): FMM

Date: 6/4/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
2.1.01	0-28 cm 28-42	10YR 4/4 10YR 5/6	SiLo SiLo	—
2.1.02	0-22 cm 22-38	10YR 4/4 10YR 5/6	SiLo SiLo	—
2.1.03	0-15 cm 15-31	10YR 4/4, with mottling 10YR 5/6	SiLo SiLo	—
2.1.04	0-30 cm 30-45	10YR 3/3 10YR 5/6	SiLo SiLo	—
2.1.05	0-28 cm 28-41	10YR 3/3 10YR 5/6	SiLo SiLo	—

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062

Excavator(s): FMM

Project Name: Clay Business Park Phase IB

Date: 6/11/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
1.1.98	0-29cm 29-43	10YR4/4, mottled 10YR6/4	SiLo SaLo	—
1.1.99	0-15cm 15-25	10YR 3/2 10YR 7/4	SiLo SiLo	— w/Diane
1.1.100	0-25cm	10YR3/3	standing water	—
1.1.101	0-25cm	10YR 3/3	standing water	—
EOT				
2.1.06	NA	NA	NA	standing water
2.1.07	0-35cm 35-46	10YR4/2 10YR 6/4	SiLo SiLo	—
2.1.08	0-27cm 27-39	10YR4/2 10YR5/4	SiLo SiLo	—
2.1.09	0-35cm 35-45	10YR4/2 10YR6/4	SiLo SiLo, inundated	—
2.1.10	0-5cm		gravel	within 25ft of trans. line tower; heavy gravel
2.1.11	NA	NA	NA	within trans. line tower footprint

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062

Project Name: Clay Business Park Phase IB

Excavator(s): FMM

Date: 6/12/13

Location/Setting:

REVERSE THESE STS FOR THIS SHEET ONLY TAF

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
3.1 1.3.61	0-10cm	10YR4/3	SiLo	standing water w/Sam + Blane
NEW AREA				
2.1 1.2.12	0-28cm 28-37	10YR3/3 10YR4/6	SiLo SiLo, inundated	—
1.2.13	0-26cm 26-36	10YR4/3 10YR4/6	SiLo, inundated SiLo, inundated	—
NEW AREA				
1.3.63	0-23cm 23-40	10YR 4/4 10YR 4/6	SiLo SiLo	—
1.3.64	0-22cm 22-33	10YR 4/4 10YR4/6	SiLo SiLo	bituminous coal Frag.
1.3.65	0-23cm 23-39	10YR 4/4 10YR 4/6	SiLo SiLo	square nail
NEW AREA				
1.2.14	0-39cm 39-56	10YR 3/3 10YR 5/4, mottled	SiLo SiLo	—
1.2.15	0-28cm 28-38	10YR 4/3 10YR 4/6	SiLo SiLo, inundated	—

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #:	12062	Excavator(s):	SCH
Project Name:	Clay Business Park Phase IB	Date:	6/17/2013

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
2.2.28	0-10 10-	10yr 4/3 water	Sicllo	Ø
2.2.29	0-10 10-	10yr 4/3 water	Sicllo	Ø
2.2.30	0-24 24-34	10yr 4/3 10yr 4/6	Sicllo Sicllo	Ø
2.2.31	0-25 25-35	10yr 4/3 10yr 4/6	Sicllo Sicllo	Ø
2.2.32	0-29 29-39	10yr 4/3 10yr 4/6	Sicllo Sicllo	Ø
2.2.33	0-24 24-34	10yr 4/3 10yr 4/6	Sicllo Sicllo	Ø
2.2.34	0-27 27-37	10yr 4/3 10yr 4/6	Sicllo Sicllo	Ø
2.1.16	0-22 22-32	10yr 4/3 10yr 4/6	Sicllo Sicllo	Ø
2.1.17	0-25 25-35	10yr 4/3 10yr 4/6	Sicllo Sicllo	Ø

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): DB / FM
Date: 6-17-13

Location/Setting: woods

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
2.1.19	0-26 26-39	10yr 3/3 dkbr 10yr 4/6 dkylbr	Si Lo CL Si	— —
2.1.18	0-27 27-38	Same	Same	— —

draw a line to separate shovel tests

heological Survey Field Record Sheet

edr

edr Project #: ~~13035~~ 12062
Excavator(s): FMM
Project Name: ~~Wilcox Estates – Phase 1 Survey~~
Date: 6/18/13
Location/Setting: Clay Business Park Phase 1B

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
2.1.20	0-27cm 27-40	10YR3/3 10YR4/4	SiClLo SiClLo	—
2.1.21	0-25cm 25-42	10YR3/3 10YR4/4	SiClLo SiClLo	—
2.1.22	0-22cm 22-32	10YR3/3 10YR4/6	SiLo SiLo, water	—
2.1.23	0-30cm 30-40	10YR4/3 10YR5/4	SiLo SiLo, water	—
2.1.24	0-33cm 33-45	10YR3/3 10YR4/6	SiLo SiLo, water	—
2.1.25	0-26cm 26-39	10YR3/3 10YR4/6, mottled w/grey	SiLo SiClLo, water	—
2.1.26	0-? (25cm-ish)	10YR3/3	SiLo... standing water	—
2.1.27	0-? (25cm-ish)	10YR3/3	SiLo... standing water	—
2.1.28	0-25cm 25-35	10YR4/3 10YR4/6	SiLo SiClLo, water	—
2.1.29	0-24cm 24-38	10YR4/3 10YR4/6	SiLo SiClLo, water	—
2.1.30	0-30cm 30-42	10YR4/3 10YR4/6	SiLo SiClLo, water	—
2.1.31	0-28cm 28-42	10YR4/3 10YR4/4	SiClLo SiClLo	—
2.1.32	0-26cm 26-36	10YR4/3 10YR4/6	SiClLo SiClLo, water	—
2.1.33	0-22cm 22-36	10YR4/3 10YR4/6	SiClLo SiClLo, water	—
2.1.34	0-29cm 29-41	10YR4/3 10YR4/6	SiClLo SiClLo, water	— just inside brush on edge of field
2.1.35	0-25cm 25-36	10YR4/3 10YR4/6	SiClLo SiClLo, water	—

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: ~~13035~~ 12062

Project Name: ~~Wilcox Estates – Phase 1 Survey~~

Location/Setting: Clay Business Park Phase IB

Excavator(s): FMM

Date: 6/18/13

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
Z.1.36	0-28cm 28-39	10YR4/3 10YR5/4	SiClLo SiClLo	—

draw a line to separate shovel tests

11(23)

Archeological Survey Field Record Sheet

edr

edr Project #: 12062

Excavator(s): SCH

Project Name: Clay Business Park Phase IB

Date: 6/4/2013

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
2.2.1	0-23 23-33	10yr 4/3 10yr 5/5	Siclo Siclo	Ø
2.2.2	0-20 20-30	10yr 3/3 10yr 5/5	Siclo Siclo	Ø
2.2.3	0-23 23-33	10yr 3/3 10yr 5/5	Siclo Siclo	Ø
2.2.4	0-22 22-35	10yr 3/3 10yr 5/6	Siclo Siclo	Ø
2.2.5	0-19 19-29	10yr 4/3 10yr 5/6	Siclo Siclo	Ø
2.2.6	0-22 22-32	10yr 4/3 10yr 5/6	Siclo Siclo	Ø
2.[illegible]	0-13 13-20 20-[illegible]	10yr [illegible] 10yr [illegible]/2 10yr 5/6	Siclo [illegible] Siclo +5% gravel Siclo	Compacted [illegible] likely due to previous pasturing, [illegible] animal [illegible] Ø
2.2.8	0-22 22-32	10yr [illegible]/3 10yr 5/6	Siclo +5% gravel Siclo	Ø

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062

Excavator(s):

Project Name: Clay Business Park Phase IB

Date:

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
~~1.2.10[illegible]~~	~~0-10~~	~~10yr 4/1~~	~~flipped top~~	~~Ø~~
~~1.2.103~~	~~10-~~	~~Standing water~~	~~filled w/ water~~	
~~1.2.104~~				
~~1.2.105~~	~~0-[illegible]~~	~~10yr 4/3~~	~~SiCl lo~~	~~Ø~~
	~~[illegible]-26~~	~~10yr 6/6~~	~~SiCl lo~~	
2.2.[illegible]	Not dug standing water			Ø
2.2.[illegible]				
2.2.8	0-18	10yr 4/3	SiCl lo	Ø
	18-[illegible]	10yr 5/6	SiCl lo	
2.2.[illegible]	0-22	10yr 4/3	SiCl lo	Ø
	22-32	10yr 5/6	SiCl lo	
2.2.[illegible]	0-20	10yr 4/3	SiCl lo	Ø
	20-30	10yr 5/6	SiCl lo	
2.2.11	Not dug standing water			
2.2.12	0-10	10yr 4/3	SiCl lo	Ø
	10-	Water	Ø	

draw a line to separate shovel tests

ey Field Record Sheet

12062		Excavator(s):	SCH
:	Clay Business Park Phase IB	Date:	6/12/13

etting:

. Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
2.54	0-15 15-25	10yr 4/3 10yr 6/4	Sicl lo Sicl lo	Ø
2.55	0-14 14-24	10yr 4/3 10yr 6/2+ water	Sicl lo Sicl lo	Ø Ø
2.56	0-27 27-37	10yr 4/3 10yr 5/6	Sicl lo Sicl lo	Ø
2.57	0-16 16-	10yr 4/3 Water	Sicl lo	Ø
2.58	0-27 27-37	10yr 4/3 10yr 6/4	Sicl lo Sicl lo	Ø
2.59	0-28 28-38	10yr 4/3 10yr 5/6	Sicl lo Sicl lo	Ø
2.13	0-20 20-30	10yr 4/3 10yr 5/6	Sicl lo Sicl lo	Ø
2.14	0-28 28-38	10yr 4/3 10yr 5/6	Sicl lo Sicl lo	Ø
2.1[illegible]	0-22 22-32	10yr 4/3 10yr 5/6	Sicl lo Sicl lo	Ø

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): SC
Date: 6/11/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
3.2.60	0-22 22-32	10yr 4/4 10yr 5/6	Sicllo Sicllo	Ø
3.2.61	0-18 18-28	10yr 4/4 10yr 5/6	Sicllo Sicllo	Ø
3.2.62	0-32 32-42	10yr 4/4 10yr 5/6	Sicllo Sicllo	Ø
2.2.16	0-24 24-34	10yr 4/4 10yr 5/6	Sicllo Sicllo	Ø
2.2.17	0-32 32-45	10yr 4/4 10yr 5/6 + water	Sicllo Sicllo	1 square nail 1 window glass 1 burned glass 1 brick ? 3 slate

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): SCH
Date: 6/17/2013

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
2.2.18	0-14 14-	10yr 4/3 Water	Sicllo	Ø
2.2.19	0-10 10-	10yr 4/3 Water	Sicllo	Ø
2.2.20	0-23 23-32	10yr 4/3 10yr 5/4+ water	Sicllo Sicllo	Ø
2.2.21	0-24 24-34	10yr 4/3 10yr 4/6+ water	Sicllo Sicllo	Ø
2.2.22	0-28 28-38	10yr 4/3 10yr 4/6	Sicllo Sicllo	Ø
2.2.23	0-10 10-	10yr 4/3 Water	Sicllo	Ø
2.2.24	0-10 10-	10yr 4/3 Water	Sicllo	Ø
2.2.25	0-10 10-	10yr 4/3 Water	Sicllo	Ø
2.2.26	0-10 10-	10yr 4/3 Water	Sicllo	Ø
2.2.27	0-10 10-	10yr 4/3 Water	Sicllo	Ø

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): SCH
Date: 6/17/2013
Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
2.2.28	0-10 10-	10yr 4/3 water	Si cl lo	Ø
2.2.29	0-10 10-	10yr 4/3 water	Si cl lo	Ø
2.2.30	0-24 24-34	10 yr 4/3 10 yr 4/6	Si cl lo Si cl lo	Ø
2.2.31	0-25 25-35	10 yr 4/3 10 yr 4/6	Si cl lo Si cl lo	Ø
2.2.32	0-29 29-39	10 yr 4/3 10 yr 4/6	Si cl lo Si cl lo	Ø
2.2.33	0-24 24-34	10 yr 4/3 10 yr 4/6	Si cl lo Si cl lo	Ø
2.2.34	0-27 27-37	10 yr 4/3 10 yr 4/6	Si cl lo Si cl lo	Ø
2.1.16	0-22 22-32	10 yr 4/3 10 yr 4/6	Si cl lo Si cl lo	Ø
2.1.17	0-25 25-35	10 yr 4/3 10 yr 4/6	Si cl lo Si cl lo	Ø

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): DB
Date: 6-4-13

Location/Setting: Open field behind house
area 2

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
2.3.01	0-28 28-38	10yr 4/3 10yr 5/6	Silo Silo	— —
2.3.02	0-18 18-28	Same	Same	=
2.3.03	0-20 20-30	Same	Same	=
2.3.04	0-40 40-50	10yr 3/2 10yr 5/6	Si Lo CL Si	In cut grass behind house
2.3.05	0-9 9-20 20-30	10yr 4/3 10yr 5/3 10yr 5/6	Silo Silo Silo	In old pasture 5% gravel —

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062

Project Name: Clay Business Park Phase IB

Excavator(s): DB

Date: 6-11-13

Location/Setting: wetlands/brush

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
2.3.06	—	—	—	Standing water everywhere
2.3.07	—	—	—	Same
2.3.08	0-30 30-41	10yr 4/2 10yr 5/4, 6/3	Cl lo Si CL	water Seepage
2.3.09	0-33 33-43	10yr 4/2 10yr 5/4, 6/3	cl lo Si CL	—
2.3.10	0-30	Same	Same	water
2.3.11	0-33 33-43	Same	Same	—
2.3.12	0-27	10yr 4/3	cl lo	water @ 27cmbs
2.3.13	0-28 28-39	10yr 4/3 10yr 5/6	cl lo SiCL	—
	EOT			

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): DB
Date: 6-12-13

Location/Setting: brush/wetlands/open Field area 2

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
2.3.14	0-30 30-43	10yr 4/2 10yr 5/6	CLLo SiLo	—
2.3.15	0-26 26-39	Same	CLLo SiLo	wet
2.3.16	0-31 31-45	Same	Same	—
EOT. For this segment				
2.3.17	0-30 30-40	Same	Same	at edge of & open Field water @ 30 cmbs.
2.3.18	0-18 18-21	10yr 2/2 10yr 6/4	CLLo SiCL	1 nail Rock layer, possibly stacked next to older maple
2.3.19	0-30 30-40	Same	Same	—
2.3.20	0-28 28-38	10yR 3/4 10yr 5/4	CLLo SiCL	approx. 3M N of a cement edged, brick lined (well?) covered by rusted tin approx 2M x 2M also next to a extremely old tree (cottonwood?)

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062 **Excavator(s):** DB

Project Name: Clay Business Park Phase IB **Date:** 6-14-13

Location/Setting: open field - wetlands
area 2 - corner near RR tracks/Caughdenoy Rd.

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
2.3.21	0-30 30-40	10yr 4/2 v dk g br 10yr 6/3, 5/6 p br, y br	cllo sicl	— water @ 36 cmbs
2.3.22	0-30 30-40	10yr 4/2 10yr 6/3, 5/8	cllo sicl	— —
2.3.23	0-25 25-35	same	same	— water @ 32 cmbs
2.3.24	0-27 27-37	same	same	— water @ 35 cmbs
2.3.25	0-33 33-43	same	same	very wet/surface water water @ 30 cmbs
2.3.26	0-23	same	same	water @ 5 cmbs
2.3.27	0-30 30-43	10yr 3/2 10yr 5/2, 5/4	same	— surface water soils very wet
2.3.28	0-30 30-45	10yr 3/3 10yr 6/3, 5/8	same	soils wet
2.3.29	0-30 30-45	10yr 3/2 10yr 5/4, 6/3	same	soils wet
2.3.30	0-27 27-37	10yr 4/2 10yr 5/4, 6/3	same	soils wet
2.3.31	0-33 33-43	10yr 3/3 10yr 7/2, 5/8	same	same
2.3.32	0-30 30-40	10yr 3/2 10yr 5/4, 5/6	same	same
2.3.33	0-5	10yr 4/2	cllo	water
2.3.34	0-11	same	same	water
2.3.35	0-24	same	same	water
2.3.36	0-24	same	same	water
2.3.37	0-30 30-40	10yr 4/2 10yr 4/6	same	water @ 35 cmbs at brushline
2.3.38	0-32 32-42	10yr 5/2 10yr 7/3, 5/8	cllo sicl	In brush water @ 30 cmbs

draw a line to separate shovel tests

EOT

Archeological Survey Field Record Sheet

edr

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): TAK
Date: 05-31-2013

Location/Setting: AREA 3 · OPEN, UNPLOWED FIELD

Shovel Test	Depth CMBS	Soil Color	Soil Texture	Artifacts/Comments
3.1.01	0 - 25	10YR 5/4 · YB	Si Lo · Apz	NCM
	25 - 35	10YR 5/6 + 10YR 6/4	Si Cl Lo	NCM
3.1.02	0 - 35	10YR 5/4 · YB	Si Lo · Apz	NCM
	35 - 45	10YR 5/6 · YB	Si Cl	NCM
3.1.03	0 - 34	10YR 5/4 · YB	Si Lo · Apz	NCM
	34 - 44	10YR 5/6 + 10YR 6/4	Si Cl Lo	NCM
3.1.04	0 - 26	10YR 5/4 · YB	Si Lo · Apz	NCM
	26 - 35	10YR 5/8 · YB	Si Cl Lo	NCM
3.1.05	0 - 30	10YR 5/4 · YB	Si Lo · Apz	NCM
	30 - 37	10YR 5/6 + 10YR 6/4	Si Cl Lo	NCM
3.1.06	0 - 24	10YR 4/3 · B	Si Lo · Apz	NCM
	24 - 35	10YR 6/6 · BY	Si Cl	NCM · WATER @ 31 CMBS
3.1.07	0 - 32	10YR 4/4 · DYB	Si Lo · Apz	NCM
	32 - 41	10YR 5/8 · YB	Si Cl	NCM
3.1.08	0 - 25	10YR 4/4 · DYB	Si Lo · Apz	NCM
	25 - 34	10YR 5/8 · YB	Si Cl	NCM
3.1.09	0 - 34	10YR 4/4 · DYB	Si Lo · Apz	NCM
	34 - 43	10YR 5/6 · DYB	Si Cl	NCM
3.1.10	0 - 25	10YR 4/3 · B	Si Lo · Apz	NCM
	25 - 36	10YR 5/6 + 10YR 6/4	Si Cl	NCM

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062

Project Name: Clay Business Park Phase IB

Excavator(s): GT

Date: 5-21-13

Location/Setting: Buildable Area 3 - Transect 3

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
3.3.13	0-24 24-34	10 yr 3/3 10yr 5/6	silty loam "	NCM "
3.3.14	0-23 23-35	10 yr 3/3 10 yr 5/6	" "	" "
3.3.15	0-24 24-34	10 yr 3/3 10 yr 5/8	" "	" "
3.3.16	0-26 26-36	10 yr 3/3 10 yr 5/8	" "	" "
3.3.17	0-25 25-33	10 yr 3/3 10 yr 5/8	" "	"
3.3.18	0-26 26-35	10 yr 3/3 10 yr 5/8 / 10 yr 6/2	" "	" "
3.3.19	0-24 24-33	10 yr 3/3 10 yr 5/8	" "	NCM NCM
3.1.11	0-23 23-35	10 yr 4/4 ? 10 yr 5/8	" "	NCM NCM
3.1.12	0-26 26-35	10 yr 4/3 10yr 5/8	" "	" "
3.1.13	0-27 27-36	10 yr 4/3 10yr 5/?	" "	" "

* [illegible]

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #:	12062	Excavator(s):	DB
Project Name:	Clay Business Park Phase IB	Date:	5-31-13

Location/Setting: open Field

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
3.1.19	0-24 24-37	10YR 3/3 br 10yr 5/6 ylbr	SiLo SiCL	At edge of woodline
3.1.18	0-20 20-31	Same	Same	=
3.1.17	0-26 26-36	Same	Same	=
3.1.16	0-38 38-50	Same	Same	=
3.1.15	0-38 38-48	Same	Same	=
3.1.14	0-30 30-42	Same	Same	— water seepage

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): FMM
Date: 6/3/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
3.1.20	0-3cm 3-30 30-35	sod 10YR 5/4 10YR 5/6	silty loam loam	—
3.1.21	0-5cm 5-24 24-35	sod 10YR 4/3 10YR 4/4 mottled 5/6	SiLo SiLo w/clay	—
3.1.22	0-5cm 5-23 23-36	sod 10YR 4/3 10YR 4/4 mottled 5/6	SiLo SiLo w/clay incl.	metal lump
3.1.23	0-5cm 5-22 22-37	sod 10YR 4/3 10YR 4/4 mottled 5/6	SiLo SiLo w/clay	—
3.1.24	0-5cm 5-22 22-36	sod 10YR 4/3 10YR 4/6 mottled 6/6	SiLo SiLo w/clay	—
3.1.25	0-5cm 5-28 28-43	sod 10YR 3/2 10YR 6/4	SiLo SiLo w/clay	wet soil
3.1.26	0-5cm 5-26 26-40	sod 10YR 4/3 10YR 4/4 mottled 5/6	SiLo SiLo w/clay	—

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): FMM
Date: 6/3/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
3.1.27	0-5 cm 5-25 25-35	 10YR 5/4 10YR 5/6	 SiLo SiLo	—
3.1.28	0-5cm 5-29cm 29-44	 10YR 5/4 10YR 5/6	 SiLo SiLo	—
3.1.29	0-5cm 5-22 22-36	 10YR 5/4 10YR 5/6	 SiLo SiLo	—
3.1.30	05 cm 5-22 22-35	 10YR 5/4 10YR 5/6	 SiLo SiLo w/clay	— inside copse
3.1.31	05 cm 5-9 9-38	 10YR 5/4, mottled 10YR 5/6	 SiLo SiLo, w/clay	—
3.1.32	0-5cm 5-22 22-39	 10YR 5/4 10YR 5/6	 SiLo. SiLo	—
3.1.33	0-5cm 5-16 16-33	 10YR 5/4 10YR 5/6	 SiLo SiLo	—
3.1.34	0-5cm 5-18 18-38	mottled 10YR 5/4 10YR 5/4 mottled 10YR 5/6	SiLo Sandy Loam sandy loam	— inside treeline
3.1.35	0-5cm 5-30	10YR 2/2, mottled 10YR 4/4	sandy loam sandy loam	— heavy roots

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): FMM
Date: 6/3/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
3.1.36	0-5 5-28	mottled 10YR 5/4 10YR 5/6	Sandy Loam Sandy Loam	— Heavy roots
3.1.37	0-5 5-24 24-33	mottled 10YR 5/4 10YR 5/4 10YR 5/6	Sand Loam " "	—
3.1.38	0-5 5-24 24-34	mottled 10YR 5/4 10YR 5/4 10YR 5/6	Sandy Loam " "	—
3.1.39	0-29 29-42	10YR 4/3 10YR 5/4	Sandy Loam Clay Loam	—
3.1.40	0-21 21-31	10YR 5/4 10YR 5/6	Sandy Loam Clay Loam	—
3.1.41	0-22 22-33	10YR 5/4 10YR 5/6	SiLo SiLo	—
3.1.42	0-23 23-33	10YR 5/4 10YR 5/6	SiLo SiLo	—
3.1.43	0-17 17-36	10YR 5/4 10YR 6/3, mottled	SiLo SiLo w/clay	—
3.1.44	0-24 24-34	10YR 5/4 10YR 6/3	SiLo SiLo w/clay	—
6/4/13 2.1.				

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062 **Excavator(s):** FMM

Project Name: Clay Business Park Phase IB **Date:** 6/12/13

Location/Setting:

REVERSE THESE #s FOR THIS SHEET ONLY

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
1.3.45	0-25cm 25-43	10YR 4/4 10YR 6/4	SiLo SiLo	—
1.3.46	0-27cm 27-43	10YR 4/4 10YR 6/4	SiLo SiLo	—
1.3.47	0-25cm 25-44	10YR 4/4 10YR 4/6	SiLo SiLo	—
1.3.48	0-25cm 25-39	10YR 4/4 10YR 4/6	SiLo SiLo	—
1.3.49	0-18cm 18-33	10YR 4/6 10YR 4/6, mottled	SiLo SiLo	—
1.3.50	0-32cm 32-43	10YR 4/6 10YR 6/4	SiLo SiLo	— heavy tree roots
1.3.51	0-15cm 15-43	10YR 4/4 10YR 4/6	SiLo SiLo	—
1.3.52	0-41cm 41-51	10YR 3/3 10YR 4/6	SiLo SiLo, inundated	—
1.3.53	0-26cm 26-39	10YR 3/3 10YR 4/6	SiLo SiLo, inundated	—
1.3.54	0-24cm 24-37	10YR 3/2 10YR 4/6	SiLo SiLo, inundated	—
1.3.55	0-24cm 24-38	10YR 3/2 10YR 4/6	SiLo SiLo	—
1.3.56	0-25cm	10YR 3/3	standing water	—
1.3.57	0-10cm 10-20	10YR 4/3 10YR 5/6	standing water	— w/Sam Arron
1.3.58	0-10cm	10YR 4/3	standing water	— w/Sam Arron
1.3.59	0-38cm 38-51	10YR 4/3 10YR 4/4	SiLo Clay-SiLo, inundated	—
1.3.60	0-22cm 22-33	10YR 4/3 10YR 5/6	SiLo SiLo	— w/Sam Diane

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): FMM
Date: 6/12/13

Location/Setting:

REVERSE ~~THESE~~ STs FOR THIS SHEET ONLY JAK

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
1.3.61	0-10cm	10YR 4/3	SiLo	standing water w/Sam + Diane
NEW AREA				
~~1.2.12~~	0-28cm 28-37	10YR 3/3 10YR 4/6	SiLo SiLo, inundated	—
~~1.2.13~~	0-26cm 26-36	10YR 4/3 10YR 4/6	SiLo, inundated SiLo, inundated	—
NEW AREA				
1.3.63	0-23cm 23-40	10YR 4/4 10YR 4/6	SiLo SiLo	—
1.3.64	0-22cm 22-33	10YR 4/4 10YR 4/6	SiLo SiLo	bituminous coal frag
1.3.65	0-23cm 23-39	10YR 4/4 10YR 4/6	SiLo SiLo	square nail
NEW AREA				
~~1.2.14~~	0-39cm 39-56	10YR 3/3 10YR 5/4, mottled	SiLo SiLo	—
~~1.2.15~~	0-28cm 28-38	10YR 4/3 10YR 4/6	SiLo SiLo, inundated	—

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #:	12062	Excavator(s):	DB
Project Name:	Clay Business Park Phase IB	Date:	5-30-13 5-31-13

Location/Setting: Open Field

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
3.2.01	0-30 30-40	10YR 3/3 br 10yr 6/2, 5/8	SiLo Si Cl	— —
3.2.02	0-30 30-40	Same same	Same Same	— —
3.2.03	0-30 30-40	Same	same	—
3.2.04	0-30 30-40	Same	Same	=
3.2.05	0-28 28-38	Same	Same	=
3.2.06	0-30 30-40	Same	Same	=
3.2.07	0-15 15-33	Same	Same	very dry soils
3.2.08	0-28 28-38	Same	Same	=
3.2.09	0-37 37-48	Same	Same	=
3.2.10	0-32 32-47	Same	Same	=
3.2.11	0-34 34-44	Same	Same.	=
3.2.12	0-27 27-37	Same	Same	=

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): DB
Date: 5-31-13

Location/Setting: open field

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
3.2.13	0-26 26-37	10YR 3/3 br 10YR 6/2, 5/8	SiLo SiCL	— very dry soils
3.2.14	0-25 25-35	same	same	same
3.2.15	0-26 26-36	Same	Same	Same
3.2.16	0-27 27-39	same	Same	=
3.2.17	0-30 30-40	Same	Same	=
3.2.18	0-30 30-40	Same	Same	=
3.2.19	0-30 30-40	Same	same	=
EOT				

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): SCH
Date: 6/3/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
3.2.20	0-3 CM 3-25 25-35	Sod 10 yr 4/4 10 y 6/3	Sicllo Silo	Ø
3.2.21	0-2 2-25 25-35	Sod 10 yr 4/4 10 yr 6/3	Silo Silo	Ø
3.2.22	0-2 2-29 29-39	Sod 10 yr 4/2 10 yr 6/3	Silo Silo	Ø
3.2.23	0-2 2-20 20-30	Sod 10 yr 4/3 10 yr 6/3	Sicllo Sicllo	Ø
3.2.24	0-2 2-28 28-38	Sod 10 yr 5/3 10 yr 6/3	Sicllo Sicllo	Ø
3.2.25	0-2 2-26 26-36	Sod 10 yr 4/4 10 yr 6/3	Sicllo Silo	Ø
3.2.26	0-2 2-22 22-32	Sod 10 yr 4/3 10 yr 6/2	Sicllo Sicllo	Ø
3.2.27	0-2 2-19 19-29	Sod 10 yr 4/4 10 yr 6/4	Sicllo Sicllo	Ø

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): SCH
Date: 6/3/2013

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
3.2.28	0-18 18-28	10yr 4/3 10yr 5/6	Silo Sicllo	at edge of forest Ø
3.2.29	0-14 14-24	10yr 4/4 10yr 5/5	Silo Silo	8m SW of large push pile, no visible historic material Ø
3.2.30	0-24 24-36 36-46	10yr 4/4 10yr 2/2 + 7.5yr 5/8 10yr 5/5	Silo Sicllo Silo	buried layer of dark organic soil with clayish brown concretion at edge of forest. 10m east of with push pile. Ø cobble
3.2.31	0-21 21-31	10yr 4/4 10yr 5/5	Sicllo Sicllo	Ø
3.2.[illegible]	0-23 23-33	10yr 4/4 10yr 6/3	Sicllo Sicllo	Ø
3.2.33	0-20 20-30	10yr 4/4 10yr 6/4	Silo Silo	Ø at edge of forest
3.2.34	0-22 22-32	10yr 5/4 10yr 6/5	Silo Silo	Ø
3.2.35	0-18 18-28	10yr 5/4 10yr 6/5	Silo Silo	Ø
3.2.36	0-24 24-34	10yr 5/4 10yr 6/5	Silo Silo	Ø
3.2.37	0-35 35-45	10yr 5/4 10yr 6/5	Silo Sicllo	Ø

draw a line to separate shovel tests

ical Survey Field Record Sheet

ject #: 12062

t Name: Clay Business Park Phase IB

Excavator(s): SCH

Date: 6/3/2013

ation/Setting:

hovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
3.2.38	0-26 26-36	10yr 5/4 10yr 6/5	Silo Siclo	Ø
3.2.39	0-28 28-38	10yr 4/4 50yr 6/6	Silo Si cllo	Ø end of forest
3.2.40	0-24 24-34	10yr 4/4 10yr 6/4	Silo siclo	Ø
3.2.41	0-26 26-36	10yr 4/4 10yr 6/4	Siclo Siclo	Ø
3.2.42	0-23 23-34	10yr 4/4 10yr 6/3	Siclo Siclo	Ø
3.2.43	0-19 19-29	10yr 4/3 10yr 6/6	Siclo Siclo	Ø
3.2.44	0-22 22-34	10yr 4/3 10yr 6/6	Siclo Siclo	Ø

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #:	12062	Excavator(s):	SCH
Project Name:	Clay Business Park Phase IB	Date:	6/12/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
3.2.45	0-28 28-38	10yr 4/3 10yr 5/6	Sicllo Sicllo	Ø
3.2.46	0-25 25-35	10yr 4/3 10yr 5/6	Sicllo Sicllo	Ø
3.2.47	0-22 22-32	10yr 4/4 10yr 6/4	Sicllo Sicllo	Ø
3.2.48	0-24 24-34	10yr 4/4 10yr 6/6	Sicllo Sicllo	Ø
3.2.49	0-22 22-32	10yr 4/4 10yr 6/6	Sicllo Sicllo	Ø
3.2.50	0-20 20-30	10yr 4/3 10yr 5/6	Sicllo Sicllo	Ø
3.2.51	0-18 18-28	10yr 4/3 10yr 5/6 + water	Sicllo Sicllo	Ø
3.2.52	0-22 22-32	10yr 4/3 10yr 5/6	Sicllo Sicllo	Ø
3.2.53	0-16 16-26	10yr 4/3 10yr 5/6	Sicllo Sicllo	Ø

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #:	12062	Excavator(s):	SCH
Project Name:	Clay Business Park Phase IB	Date:	6/12/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
3.2.54	0-15 15-25	10yr 4/3 10yr 6/4	Sicllo Sicllo	Ø
3.2.55	0-14 14-24	10yr 4/3 10yr 6/2 + water	Sicllo Sicllo	Ø Ø
3.2.56	0-27 27-37	10yr 4/3 10yr 5/6	Sicllo Sicllo	Ø
3.2.57	0-16 16-	10yr 4/3 Water	Sicllo	Ø
3.2.58	0-27 27-37	10yr 4/3 10yr 6/4	Sicllo Sicllo	Ø
3.2.59	0-28 28-38	10yr 4/3 10yr 5/6	Sicllo sicl 10	Ø
2.2.13	0-20 20-30	10yr 4/3 10yr 5/6	Sicl lo Sicl lo	Ø
2.2.14	0-28 28-38	10yr 4/3 10yr 5/6	Sicllo Sicllo	Ø
2.2.15	0-22 22-32	10yr 4/3 10yr 5/6	Sicllo Sicllo	Ø

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062

Project Name: Clay Business Park Phase IB

Excavator(s): SCH

Date: 6/11/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
3.2.60	0-22 22-32	10yr 4/4 10yr 5/6	Sicllo Sicllo	Ø
3.2.61	0-18 18-28	10yr 4/4 10yr 5/6	Sicllo Sicllo	Ø
3.2.62	0-32 32-42	10yr 4/4 10yr 5/6	Sicllo Sicllo	Ø
~~2.2.16~~	~~0-24 24-34~~	~~10yr 4/4 10yr 5/6~~	~~Sicllo Sicllo~~	~~Ø~~
~~2.2.17~~	~~0-32 32-45~~	~~10yr 4/4 10yr 5/6 + water~~	~~Sicllo Sicllo~~	~~1 square nail 1 window glass 1 burned glass~~ 1 brick ? 3 slate

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062

Excavator(s): GJ

Project Name: Clay Business Park Phase IB

Date: 5-31-13

Location/Setting: Buildable Area 3 - Transect 3

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
3.3.13	0-24 24-34	10 yr 3/3 10yr 5/6	silty loam "	NCM "
3.3.14	0-23 23-35	10 yr 3/3 10 yr 5/6	" "	" "
3.3.15	0-24 24-34	10 yr 3/3 10yr 5/8	" "	" "
3.3.16	0-26 26-36	10 yr 3/3 10 yr 5/8	" "	" "
3.3.17	0-25 25-33	10 yr 3/3 10 yr 5/8	" "	" "
3.3.18	0-26 26-35	10 yr 3/3 10yr 5/8 / 10yr 6/2	" "	" "
3.3.19	0-24 24-33	10 yr 3/3 10yr 5/8	" "	NCM NCM
~~3.1.11~~	~~0-23~~ ~~23-35~~	~~10 yr 4/4 ?~~ ~~10 yr 5/8~~	~~"~~ ~~"~~	~~NCM~~ ~~NCM~~
~~3.1.12~~	~~0-26~~ ~~26-35~~	~~10 yr 4/3~~ ~~10yr 5/8~~	~~"~~ ~~"~~	~~"~~ ~~"~~
~~3.1.13~~	~~0-27~~ ~~27-36~~	~~10yr 4/3~~ ~~10yr 5/8~~	~~"~~ ~~"~~	~~"~~ ~~"~~

* diff. trans.

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): EL/GJ
Date: 5-30 5-31-13

Location/Setting: Buildable Area 3

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
3.3.01	0-24 24-35	10YR 3/3 10YR 5/8/10YR 6/2	Silt loam Silt loam	NCM NCM
3.3.02	0-21 21-34	10YR 3/3 10YR 5/8/10YR 6/2	" "	" "
3.3.03	0-26 26-38	10YR 3/3 10YR 5/6	" "	" "
3.3.04	0-29 29-40	" "	" "	" "
3.3.05	0-25 25-35	10YR 3/3 10YR 5/8	" "	" "
3.3.06	0-25 25-35	10YR 3/3 10YR 5/8/10YR 6/2	" "	" "
3.3.07	0-26 26-34	10yr 3/3 10yr 5/8	" "	" "
3.3.08	0-25 25-35	10yr 3/3 10yr 5/6	" "	" "
3.3.09	0-25 25-37	10yr 3/3 10yr 5/8/10yr 6/2	" "	" "
3.3.10	0-24 0-36	10 yr 3/3 10 yr 5/8	" "	" "
3.3.11	0-20 20-33	10yr 3/3 10yr 5/8	" "	" "
3.3.12	0-22 22-34	10yr 3/3 10yr 5/8/10yr 6/2	" "	" "

EL ↑ (3.3.01–3.3.06)
GJ ↓ (3.3.07–3.3.12)

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): DB TAK
Date: 6-3-13

Location/Setting: open Field

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
3.3.20	0-28 28-38	10yr 3/3 br 10yr 6/2, 5/8	si lo si CL	— —
3.3.21	0-28 28-38	Same	Same	=
3.3.22	0-44 44-57	Same	Same	— Water seepage
3.3.23	0-28 28-38	Same	Same	=
3.3.24	0-34 34-44	Same	Same	=
3.3.25	0-25 25-35	Same	Same	=
3.3.26	0-24 24-34	Same	Same	=
3.3.27	0-32 32-41	Same	Same	=
3.3.28	0-30 30-40	Same	Same	=
3.3.29	0-25 25-35	Same	Same	=
3.3.30	0-30 30-40	Same	Same	=
3.3.31	0-30 30-40	Same	Same	=

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): DB TAK
Date: 6-3-13

Location/Setting: edge of Field + back tree line

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
3.3.32	0-34 34-44	10YR 3/3 10YR 6/2, 5/8	SiLo SiCL	—
3.3.33	0-36 36-47	Same	Same	— Inside wood line
3.3.34	0-38 38-48	Same	Same	— SAME
3.3.35	0-34 34-44	Same	Same	— Same
3.3.35	0-30 30-43	10YR 3/4 10YR 4/6	Silo Silo	— edge of tree line by fern grove
3.3.36	0-32 32-42	10YR 3/3 10YR 5/3	Silo Silo	— Same
3.3.37	0-33 33-43	Same	Same	— Same
3.3.38	0-30 30-40	10YR 3/3 10YR 6/2, 5/8	SiLo SiCL	— open Field
3.3.39	0-30 30-40	Same	Same	— Same
3.3.40	0-38 38-48	Same	Same	— Same

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #:	12062	Excavator(s):	DB
Project Name:	Clay Business Park Phase IB	Date:	6-12-13

Location/Setting: woods area 3

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
3.3.41	0-46 46-60	10yR 4/2 10yr 5/4	CLLo SiCL	edge of trees/Field water in sub.
3.3.42	0-24 24-40	Same	Same	In woods water @ 30 cmbs
3.3.43	0-24 24-34	Same	Same	next to standing water Water @ 26 cmbs
3.3.44	0-24 24-37	Same	Same	=
3.3.45	0-30 30 40	10yR 3/4 10yR 5/3	Same	=
3.3.46	0-27 27-37	Same	Same	=
3.3.47	0-21 21-33	Same	Same	=
3.3.48	0-27 27-39	Same	Same	wet
3.3.49	0-15 15-25	Same	Same	Roots - water @ 17cmbs
3.3.50	0-34 34-45	10yR 3/3 10yR 5/4	Same	=
3.3.51	0-31 31-40	10yR 5/2 10yR 5/6	Same	water @ 37 cmbs
3.3.52	0-37 37-50	10yR 5/2 10yR 5/6, 6/3	Same	water @ 40 cmbs
EOT				

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): DB
Date: 6-12-13

Location/Setting: open field
area 3

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
3.353	0-27 27-39	10yr 4/2 10yr 6/3, 5/6	CiLo SiCL	slight water seepage in subsoil
3.354	0-30 30-40	Same	Same	Same
3.355	0-30 30-40	Same	Same	Same
	EOT			

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): FMM
Date: 6/20/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
4.1.1	0-22 cm 22-33 cm	10YR 3/3 10YR 6/4	SiLo SiClLo	—
4.1.2	0-16cm 16-29	10YR 3/2 10YR 6/4	SiLo SiClLo, water	—
4.1.3	0-27cm 27-38	10YR 4/4 10YR 6/4	SiLo ClLo	—
4.1.4	0-16cm 16-29	10YR 4/4 10YR 6/4	SiLo SiLo	—
4.1.5	0-12cm 12-28	10YR 4/4 10YR 6/4	SiLo SiClLo, water	—
4.1.6	0-10cm 10-31	10YR 4/3 10YR 6/3, mottled w/ 3/3	SiLo SiLo, water	— hydric
4.1.7	0-17cm 17-38	10YR 4/3 10YR 5/4	SiLo SiLo, water	—
4.1.8	0-21cm 21-34	10YR 4/4 10YR 6/4	SiLo SiClLo	—
4.1.9	0-39cm 39-53	10YR 4/4 10YR 5/4	SiLo ClLo	transition subtle + gradual
4.1.10	0-21cm 21-33	10YR 5/4 10YR 7/2	SiLo ClLo	—
4.1.11	0-12cm 12-31	10YR 3/3 10YR 6/4	SiLo SiLo, water	—
4.1.12	0-13cm 13-32	10YR 4/3 mottled 10YR 6/4 + 4/6	SiLo SiClLo, water	—
4.1.14	0-19cm 19-32	10YR 4/4 10YR 6/4	SiLo SiLo	—
4.1.16	0-19cm 19-33	10YR 4/4 10YR ~~4~~ 4/6	SiLo SiLo	—
4.1.18	0-24cm 24-29cm 29-39	10YR 3/1 10YR 5/3 10YR 6/4	SiLo SiLo SiLo	—
4.1.20	0-31cm 31-43	10YR ~~3~~ 3/2 10YR 6/3	SiLo SiLo, water	—

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062

Project Name: Clay Business Park Phase IB

Excavator(s): SCH

Date: 6/20/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
4.1.11	0-15 15-25	10yr 4/3 10yr 6/4	Sicl lo Sicl lo	Ø
4.1.13	0-31 31-41	10yr 4/3 10yr 5/2	Sicl lo Sicl lo	Ø
4.1.17	0-18 18-28	10yr 4/3 10yr 6/4	Sicl lo Sicl lo	Ø
4.1.19	0-20 20-30	10yr 4/3 10yr 6/4	Sicl lo Sicl lo	Ø
4.1.21	0-18 18-28	10yr 4/3 10yr 6/3	Sicl lo Sicl lo	Ø
4.1.23	0-16 16-26	10yr 4/3 10yr 6/3	Sicl lo Sicl lo	Ø
4.1.25	0-22 22-32	10yr 3/3 10yr 6/3	Sicl lo Sicl lo	Ø
4.1.27	0-24 24-34	10yr 4/3 10yr 6/4	Sicl lo Sicl lo	Ø
4.1.29	0-17 17-27	10yr 4/3 10yr 6/4	Sicl lo Sicl lo	Ø

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #:	12062	**Excavator(s):**	FMM
Project Name:	Clay Business Park Phase IB	**Date:**	6/20/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
4.1.22	0-33cm 33-43	10YR 3/2 10YR 6/3	SiLo SiLo, water	—
4.1.24	0-23cm 23-33	10YR 3/2 10YR 4/3	SiLo SiLo, water	— extremely wet
4.1.26	0-19cm 19-32	10YR 3/4 10YR 4/6	SiLo SiLo	—
4.1.28	0-18cm 18-36	10YR 4/4 10YR 4/6	SiLo SiLo	—
4.1.30	0-19cm 19-33	10YR 4/4 10YR 4/6	SiLo SiLo	—
4.1.31	0-21cm 21-39	10YR 4/4 10YR 4/6	SiLo SiLo	—
4.1.32	0-28cm 28-39	10YR 3/2 10YR 6/3	SiLo SiLo, water	—
4.1.33	0-18cm 18-33	10YR 3/2 10YR 4/6	SiLo SiLo	—
4.1.34	0-21cm 21-36	10YR 4/4 10YR 5/6	SiLo SiLo	—
4.1.35	0-25cm 25-38	10YR 3/3 10YR 5/4	SiLo SiLo, water	—
4.1.36	NODIG	—	—	Standing Water
4.1.37	0-17cm 17-30	10YR 3/3 10YR 6/3	SiLo SiCLo	—
4.1.38	0-36cm 36-46	10YR 3/3 10YR 5/3	SiLo SiCLo	—
4.1.39	0-19cm 19-32	10YR 3/2 10YR 5/3	SiLo SiLo, water	—
4.1.40	0-12 12-31	10yr 3/2 10yr 6/1, 4/6	SiLo SiLo	
4.1.41	0-10 10-20	10yr 3/3 10yr 4/6	SiLo SiLo	

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062 Excavator(s): FMM
Project Name: Clay Business Park Phase IB Date: 6/20/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
4.1.42	0-6cm 6-12 12-27	10YR3/2 10YR4/1 10YR6/3	SiLo SiLo SiClLo	—
4.1.43	0-12cm 12-22	10YR3/3 10YR6/3	SiLo SiClLo	— W/SH

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): SCH
Date: 6/20/13
Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
4.2.1	0-24 24-34	10yr 2/2 10yr 4/2 + water	Sicllo Sicllo	Ø
4.2.2	0-18 18-28	10yr 3/3 10yr 6/3	Sicllo Sicllo	Ø
4.2.3	0-10 10-	10yr 3/2 Water	Sicllo	Ø
4.2.4	0-18 18-28	10yr 4/3 10yr 6/4	Sicllo Sicllo	Ø
4.2.5	0-22 22-32	10yr 4/3 10yr 6/4	Sicllo Sicllo	Ø
4.2.6	0-20 20-30	10yr 3/3 10yr 6/3	Sicllo Sicllo	Ø
4.2.7	0-14 14-24	10yr 4/3 10yr 6/2	Sicllo Sicllo	Ø
4.2.8	0-18 18-28	10yr 3/3 10yr 6/4	Sicllo Sicllo	Ø
4.2.9	0-18 18-28	10yr 4/3 10yr 5/4	Sicllo Sicllo	Ø
4.2.10	0-23 23-33	10yr 4/3 10yr 6/3	Sicllo Sicllo	Ø

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): SCH
Date: 6/20/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
4.2.11	0-10 10-20	10yr 4/3 10yr 6/2	Sicl lo Sicl lo	Ø
4.2.12	0-13 13-23	10yr 4/3 10yr 6/4	Sicl lo Sicl lo	Ø
4.2.13	0-16 16-26	10yr 3/3 10yr 6/3	Sicl lo Sicl lo	Ø
4.2.14	0-14 14-24	10yr 4/3 10yr 6/4	Sicl lo Sicl lo	Ø
4.2.15	0-15 15-25	10yr 4/3 10yr 6/4	Sicl lo Sicl lo	Ø
4.2.16	0-18 18-28	10yr 3/2 10yr 6/2	Sicl lo Sicl lo	Ø
4.2.17	0-14 14-16	10yr 3/3 10yr 6/3	Sicl lo Sicl lo	Ø
4.2.18	0-16 16-26	10yr 3/3 10yr 6/3	Sicl lo. Sicl lo	Ø
4.2.19	0-7 7-19 19-29	10yr 4/3 10yr 6/4 10yr 6/2	Sicl lo Sicl lo Sicl lo	Ø

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062

Project Name: Clay Business Park Phase IB

Excavator(s): SCH

Date: 6/20/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
4.2.20	0-8 8-16 16-26	10yr 4/3 10yr 6/4 10yr 6/2	Sicllo Sicllo Sicllo	Ø
4.2.21	0-14 14-16	10yr 4/3 10yr 6/4	Sicllo Sicllo	Ø
4.2.22	0-4 4-16 16-26	10yr 3/3 10yr 6/4 10yr 6/6	Sicllo Sicllo Sicllo	Ø
4.2.23	0-8 8-19 19-29	10yr 3/3 10yr 6/4 10yr 6/2	Sicllo Sicllo Sicllo	Ø
4.2.24	0-18 18-28	10yr 4/4 10yr 6/4	Sicllo Sicl	Ø
4.2.25	0-24 24-34	10yr 3/3 10yr 6/4	Sicllo Sicl lo + water	Ø
4.2.26	0-16 16-26	10yr 4/3 7.5yr 6/4	Sicllo Sicllo	Ø
4.2.27	0-14 14-24	10yr 4/3 10yr 6/2	Sicllo Sicllo	Ø

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): SCH
Date: 6/20/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
4.2.28	0-16 16-26	10yr 4/3 10yr 6/4	Sicl lo Sicl lo	Ø
4.2.29	0-14 14-25	10yr 4/3 7.5yr 6/4	Sicl lo Sicl lo	Ø
4.2.30	0-14 14-24	10yr 4/3 10yr 6/4	Sicl lo Sicl lo	Ø
4.2.31	0-18 18-28	10yr 4/3 10yr 6/3	Sicl lo Sicl lo	0
4.2.32	0-12 12-24	10yr 3/3 7.5yr 6/4	Sicl lo Sicl lo	Ø
4.2.33	0-8 8-14 14-24	10yr 4/3 10yr 6/4 10yr 6/2	Sicl lo Sicl lo Sicl lo	Ø
4.2.34	0-16 16-26	10yr 3/3 10yr 6/4	Sicl lo Sicl lo	Ø

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #:	12062	Excavator(s):	DB
Project Name:	Clay Business Park Phase IB	Date:	6.20-13

Location/Setting: area 4
woods / wetlands

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
4.3.01	0-17 17-33	10yr 5/2 grbr 10yr 6/3 pbr + 10yr 5/6 ylbr	cllo sicl	— — soils wet
4.3.02	0-15 15-28	same	same	soils wet, water seepage in subsoil STP moved 5ft N due to mud + water on surface
4.3.03	0-28 28-42	10yr 5/2 10yr 5/4	cllo si cl	— —
4.3.04	0-10 10-30	same	same	soils moist
4.3.05	0-12 12-25	same	same	soils wet
4.3.06	0-20 20-32	10yr 2/2 10yr 6/2, 5/4	si lo sicl	— —
4.3.07	0-20 20-30	10yr 4/2 dkgr 10yr 6/3, 5/8	cllo sicl	soils moist
4.3.08	0-20 20-31	same	same	water seepage in subsoil
4.3.09	0-15 15-30	10yr 3/2 10yr 5/4	cllo sicl	— soils moist —
4.3.10	0-20 20-30	same	same	— soils moist —
4.3.11	0-20 20-33	10yr 3/2 10yr 4/6	cllo sicl	— —
4.3.12	0-13 13-17 17-33	10yr 2/2 vdkbr 5YR 5/3 redbr 10yr 4/4 dk ylbr	cllo clay sicl	very compact / dry compact
4.3.13	0-18 18-30	10yr 5/2 10yr 5/4, 5/8	cllo sicl	water @ 18cmbs seepage
4.3.14	0-18 18-34	10yr 3/3 dkbr 10yr 6/4 bryl	silo sicl	— —
4.3.15	0-18 18-35	10yr 2/2 10yr 4/6	silo silo	— —

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062
Excavator(s): DB
Project Name: Clay Business Park Phase IB
Date: 6-20-13

Location/Setting: area 4
woods/wetlands

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
4.3.16	0-23 23-40	10yr 3/1 10yr 5/8, 6/3	CLLo SiCL	Soils moist
4.3.17	0-21 21-40	10yr 3/4 10yr 4/6	SiLo SiCL	—
4.3.18	0-24 24-37	10yr 3/1 10yr 6/3	CLLo SiCL	— Soils moist
4.3.19	0-15 15-27	10yr 3/4 10yr 6/4	SiLo SiLo	—
4.3.20	0-30 30-40	10yr 4/3 10yr 4/6	SiLo SiCL	—
4.3.21	0-17 17-33	Same	Same	—
4.3.22	0-28 28-40	10yr 2/2 10yr 4/6	CLLo SiCL	—
4.3.23	0-23 23-33	10yr 4/2 10yr 6/3	CLLo SiCL	—
4.3.24	0-23 23-37	10yr 3/3 10yr 4/6	SiLo SiCL	—
4.3.25	0-10 10-27	Same	Same	—
4.3.26	0-10 10-23	Same	Same	—
4.3.27	0-7 7-17	Same	SiLo SiLo	— lots of Roots
4.3.28	0-10 10-15	Same	CLLo SiCL	— massive roots soils moist
4.3.29	0-17 17-30	10yr 5/2 10yr 7/3, 6/6	CLLo SiCL	— soils moist
4.3.30	0-8 8-24	10yr 3/3 10yR 6/4	SiLo SiLo	—

EOT

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): FMM
Date: 6/21/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
5.1.1	0-30cm 30-51	10YR4/4 10YR4/5	SiLo SiLo	—
5.1.2	0-24cm 24-41	10YR4/4 10YR4/5	SiLo SiLo	—
5.1.3	0-27cm 27-37	10YR4/4 10YR4/5	SiLo SiClLo	—
5.1.4	0-23cm 23-35	10YR4/4 10YR4/6	SiLo SiClLo	—
5.1.5	0-21cm 21-37	10YR4/4 10YR4/5	SiLo SiLo	—
5.1.6	0-24cm 24-38	10YR4/4 10YR4/5	SiLo SiLo	—
5.1.7	0-19cm 19-32	10YR4/4 10YR4/6	SiLo SiClLo	—
5.1.8	0-22cm 22-37	10YR4/4 10YR4/6	SiLo SiClLo	—
5.1.9	0-17cm 17-38	10YR4/4 10YR4/5	SiLo SiClLo	—
5.1.10	0-32cm 32-45	10YR4/4 10YR4/5	SiLo SiLo	—
5.1.11	0-17cm 17-29	10YR3/4 10YR4/5	SiLo SiClLo	—
5.1.12	0-15cm 15-47	10YR4/4 10YR4/5	SiLo SaSiLo	—
5.1.13	0-17cm 17-31	10YR4/4 10YR5/5	SiLo SiClLo	—
5.1.14	0-24cm 24-36	10YR4/4 10YR4/5	SiLo SiClLo	—
5.1.15	0-24cm 24-36	10YR4/4 10YR4/6	SiLo SiClLo	—

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062

Excavator(s): FMM

Project Name: Clay Business Park Phase IB

Date: 6/21/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
5.1.16	0-12cm 12-31	10YR4/4 10YR4/5	SiLo SiClLo	—
5.1.17	0-22cm 22-33	10YR4/4 10YR4/5	SiLo SiLo	—
5.1.18	0-14cm 14-28	10YR4/4 10YR4/5	SiLo SiLo	—
5.1.19	0-16cm 16-29	10YR4/4 10YR4/5	SiLo SiClLo	—
5.1.20	0-16cm 16-29	10YR4/4 10YR4/5	SiLo SiLo	—
5.1.21	0-19cm 19-34	10YR4/4 10YR4/5	SiLo SiLo	—
5.1.22	0-22cm 22-35	10YR4/4 10YR5/6	SiLo SiClLo	—
5.1.23	0-22cm 22-36	10YR 2/2 10YR 3/2	SiLo SiLo	in something of a ditch bisecting the esker; shotgun casing, nail
5.1.24	0-24cm 24-35	10YR 3/2 10YR 4/4	SiLo SiLo	—
5.1.25	0-10cm 10-26	10YR4/4 5YR4/6	SiLo SiLo	—
5.1.26	0-16cm 16-31	10YR4/4 5YR4/6	SiLo SiLo	—
5.1.27	0-14cm 14-33	10YR4/4 5YR4/5	SiLo SiLo	—
5.1.28	0-14cm 14-31	10YR4/4 5YR4/5	SiLo SiLo	—

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062

Project Name: Clay Business Park Phase IB

Excavator(s): FMM

Date: 6/24/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
5.1.29	0-15cm 15-36	10YR 3/4 5YR 4/6	SiLo SiLo	—
5.1.30	0-9cm 9-14 14-29	10YR 3/3 10YR 7/2 5YR 4/6	SiLo SiLo SiLo	—
5.1.31	0-11cm 11-38	10YR 3/3 10YR 4/6	SiLo SiLo	—
5.1.32	0-14cm 14-26	10YR 3/3 5YR 5/6	SiLo SiLo	—
5.1.33	0-10cm 10-37	10YR 3/3 5YR 5/6	SiLo SiLo	—
5.1.34	0-22cm 22-37	10YR 3/4 with patches of 10YR 7/2 5YR 5/6	SiLo SiLo	—
5.1.35	0-12cm 12-26	10YR 4/4 10YR 4/5	SiLo SiLo	—
5.1.36	0-31cm 31-51	10YR 3/4 10YR 5/6	SiLo SiLo	—
5.1.37	0-16cm 16-22 22-37	10YR 3/4 10YR 7/2 5YR 5/6	SiLo SaLo SiLo	—
5.1.38.	0-13cm 13-33	10YR 4/4 10YR 4/6	SiLo SiClLo	—
5.1.39	0-22cm 22-37	10YR 3/4 10YR 5/5, with 5YR 4/6 inclusions	SiLo SiClLo	—
5.1.40	0-22cm 22-34	10YR 4/4 5YR 5/6	SiLo SiLo	—
5.1.41	0-25cm 25-35	10YR 4/4 10YR 4/6	SiLo SiLo	—
5.1.42	0-15cm 15-25	10YR 4/4 10YR 5/6	SiLo SiLo	—

draw a line to separate shovel tests

Arche[illegible] Survey Field Record Sheet

edr Project #:

Project Name: [illegible] ness Park Phase IB

Excavator(s): TAK/FMM

Date: 06-24-2013 / 6/25/13

Location/Setting:

Shovel Test	Depth cmBS	Soil Color	Soil Texture	Artifacts/Comments
5.1.43	0-14 14-23	10YR 3/2 10YR 5/4	SiLo SiCl w/saprolites	NCM NCM
5.1.44	0-13 13-23	10YR 3/2 10YR 3/4	"	NCM NCM
5.1.45	0-26 26-36	10YR 3/2 10YR 5/4		NCM
5.1.46	0-12 12-22	10YR 3/2 7.5YR 4/6	SiL SiClLo	NCM NCM
5.1.47	0-13cm 13-23	10YR 3/2 7.5YR 5/6	SiLo SiClLo	NCM
6/25 5.1.48	0-13cm 13-23	10YR 4/4 7.5YR 5/6	SiLo SiLo w/ podzol incl.	NCM
5.1.49	0-15cm 15/25	10YR 4/4 10YR 4/6	SiLo SiLo	NCM
5.1.50	0-12 12-22	10YR 4/4 10YR 4/6	SiLo SiClLo	NCM NCM
5.1.51	0-13 13-23	10YR 3/4 10YR 4/6	SiLo SiClLo	NCM NCM
5.1.52	0-18 18-28	10YR 3/3 10YR 5/6	SiLo SiClLo	NCM NCM
5.1.53	0-27 27-37	10YR 3/3 10YR 5/6	SiLo SiClLo	NCM NCM
5.1.54	0-4 4-20	10YR 3/2 10YR 6/4	Organic SiLo	NCM NCM

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062

Project Name: Clay Business Park Phase IB

Excavator(s): DB

Date: 6·23·13 / 6·24·13

Location/Setting: woods area 5

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
5.1.74	0-15 15-25	10yr 4/3 10yr 6/3	siLo si cl	—
5.1.73	0-18 18-30	10yr 4/3 10yr 5/4	Same	—
5.1.72	0·12 12·24	10yr 2/2 10yr 5/2	Same	—
5.1.71	0·27 27·37	10yr 2/2 10yr 5/4	si cl si cl	—
5.1.70	See Site paperwork			
5.1.69	—	—	—	STP in middle of vernal pool. tried to dig 3m away but not able to.
5.1.68	0·18 18·30	10yr 3/2 10yr 4/6	SiLo SiLo	—
5.1.66	0·18 18·29	10yr 5/2 10yr 7/4	cl si si cl	—
5.1.64	0·24 24-34	Same	Same	—
5.1.61	0·20 20-30	Same	Same	—
5.1.59	0·33 33·43	10yr 4/2 10yr 7/4, 5/8	Same	—
5.1.57	0·24 24-34	10yr 5/2 10yr 5/6	SiLo cl si	—
5.1.55	0·36 36-49	10yr 5/2 10yr 7/2, 5/8	SiLo cl si	—

EOT for me

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): SCH
Date:

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
5.1.70	0-14 14-24	10yr 3/2 10yr 6/3	Sicllo Sicllo	Ø
5.1.67	0-18 18-28	10yr 3/2 10yr 6/3	Sicllo Sicllo	damp Ø
5.1.65	0-10 10-	10yr 4/3 Root impasse	Sicllo	Ø
5.1.63	0-12 12-22	10yr 4/3 10yr 6/4	Sicllo Sicllo	Ø
5.1.62	0-14 14-24	10yr 3/3 10yr 5/4	Sicllo Sicllo	Ø
5.1.60	0-14 14-24	10yR 4/3 10yr 6/4	Sicllo Sicllo	Ø
5.1.58	0-16 16-26	10yr 4/3 10yr 6/4	Sicllo Sicllo	Ø
5.1.56	0-18 18-26	10yr 4/3 10yr 6/4	Sicllo Sicllo	Ø

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062

Project Name: Clay Business Park Phase IB

Excavator(s): SCH

Date: 8/21/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
5.2.1	0-24 24-34	10yr 5/4 10yr 6/4	Silo Sicl lo	Ø
5.2.2	0-24 24-34	10yr 4/4 10yr 6/4	Si lo Sicl lo	Ø
5.2.3	0-20 20-30	10yr 4/4 10yr 6/4	Sicl lo Sicl lo	Ø
5.2.4	0-25 25-35	10yr 4/4 10yr 6/4	Sicl lo Sicl lo	Ø
5.2.5	0-29 29-39	10yr 4/4 10yr 6/4	Sicl lo Sicl lo	Ø
5.2.6	0-15 15-	10yr 4/3 Root impasse	Sicl lo	Ø
5.2.7	0-24 24-34	10yr 4/4 10yr 6/4	Si lo Sicl lo	Ø
5.2.8	0-27 27-37	10yr 4/3 10yr 4/6	Sicl lo Sicl lo	Ø
5.2.9	0-14 14-24	10yr 4/3 10yr 6/4	Sicl lo Sicl lo	Ø

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): SCH
Date: 6/21/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
5.2.10	0-15 15-25	10yr 4/3 10yr 6/4	Sicl lo Sicl lo	Ø
5.2.11	0-12 12-18 18-28	10yr 4/3 10yr 6/4 10yr 6/3	Sicl lo Sicl lo Sicl lo	Ø
5.2.12	0-18 18-28	10yr 4/4 10yr 6/4	Si lo Sicl lo	Ø
5.2.13	0-22 22-32	10yr 4/3 10yr 6/4	Si lo Sicl lo	Ø
5.2.14	0-14 14-24	10yr 4/4 10yr 6/4	Si lo Sicl lo	Ø
5.2.15	0-17 17-27	10yr 4/3 10yr 6/3	Si lo Sicl lo	Ø
5.2.16	0-12 12-22	10yr 4/3 10yr 6/4	Sicl lo Sicl lo	Ø
5.2.17	0-16 16-26	10yr 4/3 10yr 6/4	Sicl lo Sicl lo	Ø
5.2.18	0-14 14-16	10yr 4/3 10yr 6/4	Sicl lo Sicl lo	Ø
5.2.19	0-16 16-26	10yr 4/3 10yr 6/4	Sicl lo Sicl lo	Ø

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062

Project Name: Clay Business Park Phase IB

Excavator(s): SCH

Date: 6/21/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
5.2.20	0-17 17-27	10yr 4/3 10yr 6/4	SiCl lo SiCl lo	Ø
5.2.21	0-10 10-	10yr 4/3 Root impasse	Sicl lo	Ø
5.2.22	0-15 15-25	10yr 4/3 10yr 6/4	Sicl lo Sicl lo	Ø
5.2.23	0-17 17-27	10yr 4/3 10yr 6/4	Sicl lo Sicl lo	Ø
5.2.24	0-14 14-24	10yr 4/3 10yr 6/4	Sicl lo Sicl lo	Ø
5.2.25	0-16 16-26	10yr 4/3 10yr 6/4	Sicl lo Sicl lo	Ø
5.2.26	0-13 13-23	10yr 4/3 10yr 6/4	Sicl lo Sicl lo	Ø
5.2.27	0-17 17-27	10yr 4/3 10yr 6/4	Sicl lo Sicl lo	Ø
5.2.28	0-14 14-24	10yr 4/3 10yr 6/4	Sicl lo Sicl lo	Ø
5.2.29	0-9 9-15 15-25	10yr 4/3 10yr 6/6 10yr 6/3	Si lo Si lo Sicl lo	Ø

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062

Project Name: Clay Business Park Phase IB

Excavator(s): SCH

Date: 6/21/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
5.2.30	0-9 9-15 15-25	10yr 4/3 10yr 6/4 10yr 6/6	Silo Silo Sicllo	Ø
5.2.31	0-4 4-19 19-29	10yr 4/3 7.5yr 6/4 10yr 6/3	Silo Silo Sicllo	Ø
5.2.32	0-5 5-18 18-28	10yr 4/3 10yr 6/4 10yr 6/6	Silo Silo Sicllo	Ø
5.2.33	0-15 15-25	10yr 4/3 10yr 6/4	Sicllo Sicllo	Ø
5.2.34	0-18 18-28	10yr 4/4 10yr 6/4	Sicllo Sicllo	Ø
5.2.35	0-22 22-32	10yr 4/4 10yr 6/4	Sicllo Sicllo	Ø
5.2.36	0-24 24-34	10yr 4/4 10yr 6/4	Sicllo Sicllo	Ø
5.2.37	0-22 22-32	10yr 4/4 10yr 6/4	Sicllo Sicllo	Ø
5.2.38	0-24 24-34	10yr 4/4 10yr 6/4	Sicllo Sicllo	Ø
5.2.39	0-3 3-18 18-28	10yr 3/3 10yr 5/4 10yr 6/6	Sicllo Sicllo Sicllo	Ø

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062
Excavator(s): SCH

Project Name: Clay Business Park Phase IB
Date: 6/21/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
5.2.40	0-7 7-17	10yr 4/3 10yr 6/4	Sicllo Sicllo	Ø
5.2.41	0-18 18-28	10yr 4/3 10yr 6/4	Sicllo Sicllo	Ø
5.2.42	0-12 12-24	10yr 4/3 10yr 6/4	Sicllo Sicllo	Ø
5.2.43	0-12 12-22	10yr 4/3 10yr 6/4	Sicllo Sicllo	Ø
5.2.44	0-14 14-24	10yr 4/3 10yr 6/4	Sicllo Sicllo	Ø
5.2.45	0-16 16-20	10yr 4/3 10yr 6/4	Sicllo Sicllo	Ø Collapsed modern structure between 45 and 46
5.2.46	0-13 13-23	10yr 4/3 10yr 6/4	Sicllo Sicllo	Ø
5.2.47	0-21 21-31	10yr 3/3 10yr 5/4	Sicllo Sicllo	Ø
5.2.48	0-17 17-27	10yr 3/3 10yr 6/3	Sicllo Sicllo	Damp Ø

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #:	12062	Excavator(s):	SCH
Project Name:	Clay Business Park Phase IB	Date:	6/24/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
5.2.49	0-32 32-42	10yr 4/3 10yr 6/3	Sicllo Sicllo	Ø
5.2.50	0-28 28-38	10yr 4/3 10yr 6/4	Sicllo Sicllo	Ø
5.2.51	0-25 25-35	10yr 4/3 10yr 6/4	Sicllo Sicllo	Ø
5.2.52	0-22 22-32	10yr 4/3 10yr 6/4	Sicllo Sicllo	Ø
5.2.53	0-31 31-41	10yr 4/3 10yr 6/3	Sicllo Sicllo	Ø
5.2.54	0-20 20-30	10yr 4/3 10yr 6/3	Sicllo Sicllo	Ø
5.2.55	0-25 25-35	10yr 4/3 10yr 6/4	Sicllo Sicllo	Ø
5.2.56	0-20 20-30	10yr 3/3 10yr 6/4	Sicllo Sicllo	Ø
5.2.57	0-25 25-35	10yr 3/2 10yr 6/3	Sicllo Sicllo	Ø
5.2.58	0-24 24-34	10yr 3/2 10yr 6/2	Sicllo Sicllo	Ø

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): DB
Date: 6-21-13

Location/Setting: area 5
woods

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
5.3.01	0-27 27-37	10yr 4/3 br 10yr 4/6 dkylbr	SiLo CL Si	— —
5.3.02	0-27 27-37	Same	Same	— — at base of small hill, some pebbles sm. cobbles
5.3.03	0-26 26-40	10yr 3/3 dkbr 10yr 4/6 dkylbr	SiLo SiCL	— — Same
5.3.04	0-25 25-37	Same	Same	— — Same
5.3.05	0-33 33-45	10YR 4/2 grbr 10yr 5/6 ylbr	CLLo SiCL	— — soils moist, approx. 12 ft away from base of rise
5.3.06	0-30 30-40	10yr 4/2 grbr 10yr 6/6 ltbryl	CLLo SiCL	— — Same
5.3.07	0-35 35-46	10yr 3/2 10yr 3/4	CLLo SiCL	— — soils moist
5.3.08	0-35 35-46	Same	Same	— — Same
5.3.09	0-35 35-46	Same	Same	— — Same
5.3.10	0-35 35-45	10yr 3/3 10yr 6/3	CLLo SiCL	— — Same
5.3.11	0-23 23-33	Same	SiLo CL Si	— — at base of rise
5.3.12	0-23 23-33	Same	Same	— — on slight rise
5.3.13	0-23 23-33	10yr 4/3 10yr 4/6	Same	— — base of rise
5.3.14	0-35 35-45	Same	Same	— — Same
5.3.15	0-30 30-40	Same	Same	— — Same
5.3.16	0-28 28-38	10yr 4/2 10yr 3/4	CLLo SiCL	— —

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062
Project Name: Clay Business Park Phase IB

Excavator(s): DB
Date: 6-21-13

Location/Setting: area 5
woods - base of rise

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
5.3.17	0-27 27-37	10yr 4/3 10yr 4/6	cllo sicl	— —
5.3.18	0-23 23-33	Same	Same	— —
5.3.19	0-23 23-33	Same	Same	— —
5.3.20	0-20 20-30	Same	Same	— —
5.3.21	0-30 30-40	10yr 3/1 10yr 5/4	cllo sicl	— water @ 30 cmbs
5.3.22	0-20 20-30	Same	Same	— soil is moist
5.3.23	0-27 27-37	Same	Same	— Same
5.3.24	0-18 18-28	10yr 4/2 10yr 5/4	cllo sicl	— —
5.3.25	0-18 18-28	Same	Same	— —
5.3.26	0-22 22-32	Same	silo clsi	— —
5.3.27	0-29 29-43	Same	Same	— —
5.3.28	0-16 16-28	10yr 3/4 10yr 5/4	silo sicl	— —
5-3-29	0-20 20-30	10yr 3/1 10yr 5/4	cllo sicl	— —
5-3-30	0-20 20-33	Same	Same	— —
5-3-31	0-23 23-33	Same	Same	— —

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062

Project Name: Clay Business Park Phase IB

Excavator(s): DB

Date: 6-22-13

Location/Setting: woods area 5

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
5.3.32	0-27 27-37	10yr 3/4 10yr 4/6	SiLo SiLo	
5.3.33	0-27 27-37	Same	Same	
5.3.34	0-30 30-40	Same	Same	
5.3.35	0-30 30-40	Same	Same	
5.3.36	0-28 28-38	Same	Same	
5.3.37	0-16 16-20 20-30	10yr 3/4 10yr 6/3 10yr 5/8	SiLo SiLo SiLo	
5.3.38	0-15 15-37	10yr 2/2 10yr 5/4	SiLo SiCL	
5.3.39	0-18 18-23 23-33	10yr 3/2 10yr 5/2 10yr 5/4	CL Si CL Si SiCL	
5.3.40	0-18 18-27 27-37	Same	Same	
5.3.41	0-20 20-24 24-36	Same	Same	Soils moist
5.3.42	0-14 14-27	10yr 6/3 10yr 6/4	SiLo SiCL	
5.3.43	0-25 25-35	Same	Same	
		001		

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #:	12062	Excavator(s):	SCH
Project Name:	Clay Business Park Phase IB	Date:	6/19/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
5.3.52	0-30 30-40	10.3/3 10yr6/2	Sicllo Sicllo	Ø
5.3.51	0-14 14-24	10yr 4/3 10yr6/2	Sicllo Sicllo	Ø
5.3.50	0-20 20-30	10yr 4/3 10yr 5/2	Sicllo Sicllo	Ø
5.3.49	0-15 15-25	10yr 4/3 10yr 6/3	Sicllo Sicllo	Ø
5.3.48	0-12 12-22	10yr 4/3 10yr6/3	Sicllo Sicllo	Ø
5.3.47	0-21 21-31	10yr 4/3 10yr6/3	Sicllo Sicllo	Ø
5.3.46	0-28 28-38	10yr 4/3 10yr 6/3	Sicllo Sicllo	Ø
5.3.45	0-26 26-36	10yr 4/3 10yr6/3	Sicllo Sicllo	Ø
5.3.44	0-24 24-34	10yr4/3 10yr6/2	Sicllo Sicllo	Ø

draw a line to separate shovel tests

,heological Survey Field Record Sheet

edr

edr Project #: 12062
Excavator(s): FMM
Project Name: Clay Business Park Phase IB
Date: 6/17/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
6.1.01	0-24cm 24-49	10YR4/3 10YR 5/3, mottled	SiClLo ClLo, water	—
6.1.02	0-30cm 30-42	10YR4/3 10YR5/3	SiClLo ClLo, water	—
6.1.03	0-26cm 26-37	10YR4/3 10YR 5/4	SiClLo ClLo, water	—
6.1.04	0-29cm 29-46	10YR4/3 10YR 5/4	SiClLo ClLo, water	—
6.1.05	0-29cm 29-45	10YR 4/4 10YR 7/3, mottled	SiLo SiClLo	—
6.1.06	0-27cm 27-37	10YR 4/4 10YR4/6	SiLo SiClLo	—
6.1.07	0-27cm 27-39 39-49	10YR 4/4 10YR3/2; mottled 10YR46	SiLo SiClLo ClLo, water	—
6.1.08	0-24cm 24-42	10YR 4/3 10YR 4/6	SiClLo ClLo, water	—
6.1.09	0-27cm 27-44	10YR4/3 10YR5/4	SiClLo ClLo, water	—
6.1.10	0-38cm 38-49	10YR4/3 10YR6/4	SiClLo ClLo, water	—
6.1.11	0-32cm 32-42	10YR4/3 10YR 4/6 + 6/4 mottled	SiClLo SaClLo, water	—
6.1.12	0-28cm 28-40	10YR4/4 10YR4/6	SiClLo ClLo, water	—
6.1.13	0-29cm 29-41	10YR4/4 10YR 4/6	SiClLo ClLo	— w/AK
6.1.14	0-34cm 34-51cm	10YR 3/3 10YR 4/6	SiClLo ClLo	— w/AK

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): FMM
Date: 6/17/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
6.1.15	0-5cm	10YR 4/3	standing water	—
6.1.16	0-5cm	10YR 4/3	standing water	— w/SH
6.1.17	0-28cm 28-	10YR 4/3 10YR 4/6	SiClLo, water inundated	—
6.1.18	0-29cm 29-39	10YR 4/3 10YR 4/6	SiClLo SiClLo, inundated	—
6.1.19	0-16cm 16-26	10YR 4/3 10YR 4/6	SiClLo SiClLo	— w/SH
6.1.20	0-26cm 26-36	10YR 4/3 10YR 4/4	SiClLo SiClLo	—
6.1.21	0-10cm 10-	10YR 4/3	standing water	— welcome to the jungle
6.1.22	0-15cm 15-25	10YR 4/3 10YR 6/3 Mottled	SiClLo SiClLo	— w/SH
6.1.23				

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): DB
Date: 6-16-13

Location/Setting: area 6 woods / wetlands

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
6.1.26	0-22 22-32	10 YR 4/2 10YR 5/6	Si Lo Si CL	—
6.1.25	0-27 27-37	same	same	—
6.1.24	0-27 27-37	same	CLLo SiCL	— moist
6.1.23	0-30 30-40	10yr 5/2 10yr 5/4	CLLo SiCL	wet

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #:	12062	Excavator(s):	SCH
Project Name:	Clay Business Park Phase IB	Date:	6/17/2013

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
6.2.01	0-24 24-34	10yr 4/3 10yr 5/4+water	Sicllo Sicllo	Ø
6.2.02	0-22 22-32	10yr 4/3 10yr 4/6	Sicllo Sicllo	Ø
6.2.03	0-22 22-32	10yr 4/3 10yr 6/3+ water	Sicllo Sicllo	Ø
6.2.04	0-20 20-30	10yr 4/3 10yr 6/3	Sicllo Sicllo	Ø
6.2.05	0-23 23-33	10yr 4/3 10yr 6/3 + water	Sicllo Sicllo	Ø
6.2.06	0-20 20-30	10yr 4/3 10yr 6/3	Sicllo Sicllo	Ø
6.2.07	0-10 10-	10yr 4/3 Water	Sicllo Sicllo	Ø
6.2.08	0-18 18-28	10yr 4/3 10yr 4/6	Sicllo Sicllo	Ø
6.2.09	0-12 12-22	10yr 4/3 10yr 4/6	Sicllo Sicllo	Ø
6.2.10	0-18 18-28	10yr 4/3 10yr 4/6+ Water	Sicllo Sicllo	Ø

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): SCH
Date: 6/17/2013

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
6.2.11	0-14 14-24	10yr4/3 10yr4/6	Siclo Siclo	Ø
6.2.12	0-10 10-	10yr4/3 water	Siclo Siclo	Ø
6.2.13	0-21 21-31	10yr4/3 10yr4/6+ water	Siclo Siclo	Ø
6.2.14	0-16 16-	10yr4/3 water	Siclo	Ø
6.2.15	0-25 25-35	10yr4/3 10yr4/6+ water	Siclo Siclo	Ø
6.2.16	0-23 23-33	10yr4/3 10yr4/6	Siclo Siclo	Ø
6.2.17	0-22 22-32	10yr4/3 10yr4/6	Siclo Siclo	Ø
6.2.18	0-34 34-44	10yr4/3 10yr4/6	Siclo Siclo	Ø
6.2.19	0-26 26-36	10yr4/3 10yr5/6	Siclo Siclo	Ø
6.2.20	0-22 22-32	10yr4/3 10yr6/3	Siclo Siclo	Ø

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #:	12062	Excavator(s):	DB
Project Name:	Clay Business Park Phase IB	Date:	6-16-13

Location/Setting: area 6
woods/wetlands

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
6.3.01	0-27 27-40	10yr4/2 vdkgrbr 10YR5/6 ylbr	CLLo SiCL	— —
6.3.02	0-32 32-42	Same	Same	—
6.3.03	0-30 30-40	10yr 4/2 vdkgrbr 10yr 5/8 ylbr, 10yr 6/2, grbr	CLLo SiCL	— —
6.3.04	0-28 28-38	10yr 4/3 br 7.5YR 5/6 ylbr	CLLo SiCL	— —
6.3.05	0-17	10yr 4/2	CLLo	water
6.3.06	0-18	10yr 4/2	CLLo	water
6.3.07	0-37 37-51	10yr 4/2 10yr 5/6	CLLo SiCL	water
6.3.08	0-31 31-43	Same	Same	— water
6.3.09	0-29 29-40	Same	Same	—
6.3.10	0-34 34-50	10yr 4/2 10yr 6/1, 5/8	Same	—
6.3.11	0-30	10yr 4/2	Same	water
6.3.12	0-34	10yr 4/2	Same	water
6.3.13	0-25 25-35	10yr 4/2 10yr 5/6	CLLo SiCL	—
6.3.14	0-26 26-36	Same	Same	—
6.3.15	0-29 29-43	Same	Same	—
6.3.16	0-33 33-44	10yr 4/3 10yr 6/4	SiLo SiCL	—
6.3.17 EOT	0-35 35-49	Same	Same	—

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #:	12062	**Excavator(s):**	all
Project Name:	Clay Business Park Phase IB	**Date:**	7-3-13

Location/Setting: Utility line starting at Caughdenoy Rd Running through a wetland next to plowed field

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
U1. 01	0-22 22-36	10yr 3/2 vdk gr br 10yr 6/6 br yl 10yr 5/8 yl br	CL lo SiCL	NCM (water in STP) NCM
100 ft in between STP 1 + STP 2 due to Wetlands				
U1. 02	0-37 37-47	10yr 3/2 10yr 6/4 bryl	CLlo SA Si	NCM NCM
U1. 03	0-34 34-44	10yr 2/2 vdkbr 10yr 5/4 ylbr	CLlo SA Si	NCM NCM
U1. 04	0-12	10yr 3/2	CLlo	NCM - Water @ 12 cmbs
U1. 05	0-10	10yr 3/2	CLlo	NCM - Water @ 10 cmbs
U1. 06	0-34 34-44	10yr 2/2 10yr 5/6	CLlo Si	NCM NCM
U1. 07	0-27 27-37	Same	CLlo Si	NCM NCM
U1. 08	0-43 43-53	Same	Same	NCM - water seepage
U1. 09	0-22 22-36	10yr 2/2 10yr 6/3, 5/8	CLlo CL Si	NCM NCM
U1. 10	0-25 25-35	Same	CLlo SiCL	NCM NCM
U1. 11	0-41 41-55	Same	CLlo SiCL	lot of medium cobbles
U1. 12	0-21	10yr 2/2	CLlo	NCM - water @ 18 cmbs
U1. 13	0-40 40-53	10yr 2/2 10yr 6/3, 5/8	Same	NCM - water seepage

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #:	12062	Excavator(s):	all
Project Name:	Clay Business Park Phase IB	Date:	7-3-13

Location/Setting: Utility line starting at Caughdenoy Rd, deep into a wetland.

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
Ul. 14	0-35 35-46	10yr 2/2 10yr 6/3, 5/8	cl lo sicl	Ncm Ncm water seepage
Ul. 15	0-35 35-48	10yr 3/2 10yr 5/4	cl lo sicl	Ncm Ncm
Ul. 16	0-30 30-40	10yr 4/3 10yr 6/3	cl lo sicl - firm	Ncm Ncm
Ul. 17	0-23 23-36	same	same	Ncm
Ul. 18	0-33 33-43	10yr 2/2 10yr 6/6 brył	cl lo sicl	Ncm
Ul. 19	0-29 29-43	10yr 3/3 10yr 5/6	silo sicl	Ncm 1st one in woods Ncm
Ul. 20	0-46 46-56	10yr 2/1 bl 10yr 5/4	lo cl cl si	Ncm Ncm lots of roots
Ul. 21	0-23 23-32	same	same	Ncm
Ul. 22	0-25	10yr 3/2	cl lo	Ncm - total water. next to pond
Ul. 23	0-15 15-25	10yr 3/2 10yr 4/2, 5/6	cl lo sicl	Ncm - water logged Ncm
Ul. 24	0-33 33-45	same	same	Ncm - water logged
Ul. 25	0-35 35-45	10yr 3/2 10yr 5/6	cl lo si	Ncm
Ul. 26	0-50	10yr 5/6	sa si	Ncm - straight to sub
Ul. 27	0-10 10-33	10yr 4/3 10yr 5/6	si	on a ridge Ncm
Ul. 28	0-22 22-32	10yr 4/3 10yr 7/2, 5/8	same	Ncm

draw a line to separate shovel tests

ogical Survey Field Record Sheet

edr

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): All
Date: 7-3-13

Location/Setting: In woods
utility line

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
U1, 29	0-23 23-33	10 yr 4/3 10yr 7/2, 5/8	SiLo SA Si	NCM on ridgetop
U1. 30	0-43 43-53	Same	Same	1 skull bone 1 whiteware 1 clear vessel glass
U1. 31	0-15 15-25	Same	Same	1 window glass (discarded)
U1. 32	0-15 15-33	Same	Same	NCM
U1 33	0-17 17-33	10yr 3/4 10yr 5/8	Silo CL Si	NCM
U1. 34	0-22 22-32	10YR 3/3 10YR 5/8	same	MCM MCM last one in woods by RR Tracks
U1, 35	0-28 28-38	10yr 3/2, 5/6 10yr 5/6	CLLo sasi	NCM NCM Other side of tracks in Saplings
U1, 36	0-20 20-28 28-80	10yr 3/2 10yr 5/6 10yr 3/1	CL lo Sasi	NCM In saplings by enormous old Pine
U1, 37	0-20	10YR 3/3	CLLo	NCM back in a wetland, surface water
U1, 38	0-27 27-37	10yr 3/3 10yr 5/6	CLLo SaSi	NCM Same
U1. 39	0-23	10yr 3/3	CLLo	NCM Same
U1, 40	0-31 31-38 38-48	10yr 3/2 10yr 7/2, 6/1 10yr 6/3, 5/8	CLLo Si Si	NCM 10% pebbles NCM NCM

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): all
Date: 7.3.13

Location/Setting:
In wetland - surface water

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments	
U1.41	0-38 38-48	10yr 3/2 10yr 6/3, 7/2, 5/8	cllo si	ncm ncm	In brushy wetland
U1.42	0-30	10yr 3/2, 3/1, 4/3	cllo	Water ncm	In tall grass wetland
U1.43	0-33 33-43	10yr 3/2 10yr 4/3, 5/6	cllo SA si	ncm	Same
U1.44	0-40 40-50	10yr 3/2 10yr 6/3, 5/6	cllo SA si	Water ncm	Same
U1.45	0-28 28-38	10yr 3/3 10yr 5/8	cl lo SA si	ncm	Same
U1.46	0-48 48-58	Same	Same	1 Iron handle @ 25 cmbs not able to get out.	at start of small rise at tree break
U1.47	0-21	10yr 3/3	silo	ncm	In a farm equip dump area
U1.48	0-30 30-40	10yr 4/3 10yr 5/6	cllo sicl	Frag of plastic bucket (discarded)	lots of gravel Top of rise more machinery
U1.49	0-28 28-38	Same	cllo sicl	ncm	In field
U1.50	0-23 23-33	Same	Same	ncm	
U1.51	0-17 17-30	Same	Same	ncm	
U1.52	0-40 40-50	10yr 3/2 10yr 6/6	Same	ncm	

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062

Project Name: Clay Business Park Phase IB

Excavator(s): all

Date: 7-3-13

Location/Setting: In field

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
UI. 53	0-33 33-43	10yr 3/3 10yr 4/6	SiLo SiCL	NCM In Field
UI. 54	0-38 38-48	Same	Same	NCM
UI. 55	0-28 38-48	Same	Same	NCM
UI. 56	0-19 19-38	Same	Same	20% pebbles with small cobbles In next Field after hedge row
UI. 57	0-23 23-33	10yr 4/2 10yr 5/4	Same	NCM
UI. 58	0-30 30-40	10yr 3/3, 10yr 4/6, 6/2	Same	NCM
UI. 59	0-30 30-40	10yr 3/3 10yr 4/6	SiCL, SiSA	NCM - water
UI. 60	0-30 30-40	Same	SiCL SiSA	NCM
UI. 61	0-32 32-42	10yr 4/2 10yr 5/4	SiCL SiSA	NCM
UI. 62	0-35 35-45	10yr 3/2 10yr 6/3	Same	NCM 20% gravel pebbles
UI. 63	0-30 30-40	10yr 4/2 10yr 2/3, 5/8	Same	NCM
UI. 64	0-23 23-33	10yr 4/2 10yr 5/6	SiCL CLSi	NCM
UI. 65	0-25 25-37	Same	Same	NCM - In Brush clump
UI. 66				By Green Building

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): FMM
Date: 7/8/13

Location/Setting: Utility Line, day 2

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
U.1.66	0-18cm 18-31	10YR3/4 10YR4/6	SiCILo SiCILo	coal + historic ceramics, L.1 adjacent to barn b/t U.1.66 + U.1.68
U.1.74	0-26cm 26-40	10YR4/4 10YR4/5	SiCILo SiCILo	—
U.1.77	0-31cm 31-41	10YR 3/4 10YR4/6	SiCILo SiCILo, w/water	—
U.1.80	0-46cm 46-56	10YR 4/4 10YR4/6	SiLo SiCILo, w/ decomposing rock	Stone set in concrete
U.1.84	0-28cm 28-39	10YR 3/2 10YR 6/5	SiLo SiCILo	—
U.1.88	0-29cm 29-37 37-44	10YR3/2 mottled 10YR2/2 10YR4/6	SiLo SiLo SiCILo, w/water	—
U.1.92	0-9cm 9-35	10YR3/2 2.5YR4/6	SiCILo CLAY. With gravel, for godssake.	Clay fill, the color of wine stains
U.1.98	0-29cm 29-43	10YR 3/2 10YR 5/3,	SiLo SiCILo, water	—
U.1.100	0-32cm	10YR 3/3	SiLo, inundated	—
U.1.104	0-32cm 32-45	10YR 3/2 10YR5/6	SiLo SiLo	—
U.1.108	0-38cm 38-48	10YR 3/2 10YR 5/6	SiLo SiLo	It is the general consensus that this whole area literally smells like shit.
U.1.111	0-35cm	10YR3/2	SiLo... MUD	—
U.1.115	0-24cm 24-41	10YR 5/4 10YR5/5	SiLo SiCILo	—
U.1.119	0-22cm 22-35	10YR5/4 10YR5/6	SiLo SiLo	—

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): DB
Date: 7.8.13

Location/Setting: Utility line - In open Field

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
Ul. 67				not dug — location is inside greenbuilding
Ul. 68	0-12 12-38	10yr 4/2 grbr 10yr 5/4 ylbr	CLLo SiCL	0-12 10% gravel NCM; next to gravel driveway
Ul. 70	0-18 18-41	10yr 4/2 10yr 5/1, 5/8	CLLo Si CL	NCM; Standing water on surface
Ul. 73	0-18 18-39	10yr 4/2 10yr 5/4	SiCL CL Si	NCM
Ul. 76	0-33 33-45	Same	Same	NCM
Ul. 79	0-28 28-38	Same	Same	NCM
Ul. 82	0-28 28-38	Same	CLLo CLLo	NCM
Ul. 83	0-30 30-40	Same	Same	NCM
Ul. 85	0-42 42-52	10yr 4/2 10yr 6/6, 5/8	CLLo SACL	NCM
Ul. 87	0-44 44-55	10yr 4/2 10yr 5/4	CLLo SACL	NCM
Ul. 91	0-35 35-45	10yr 4/2 10yr 6/4	CLLo SALO	NCM
Ul. 93	0-8 8-30	10yr 3/3 2.5YR 4/6 10YR 5/4 10YR 6/3 (mottled)	CLLo CLLo	gravel NCM; other side of Maple Rd. on built up rise, all disturbed
Ul. 95	0-8 8-30	Same	Same	NCM; Same

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #:	12062	Excavator(s):	SCH
Project Name:	Clay Business Park Phase IB	Date:	7/8/2013

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
4.1.69	0-27 27-37	10yr 3/2 10yr 4/3	Sicllo Sicllo	Ø
4.1.71	0-10 10-	10yr 3/2 water	Sicllo water	Ø
4.1.72	0-31 31-41	10yr 3/3 10yr 5/4	Sicllo Sicllo	Ø
4.1.75	0-24 24-34	10yr 3/3 7.5yr 4/3	Sicllo Sicllo	Ø
4.1.78	0-28 28-38	10yr 3/3 7.5yr 5/4	Sicllo Sicllo	1 Round rock set in mortar x
4.1.81	0-25 25-35	10yr 4/3 7.5yr 5/5	Sicllo Sicllo	Ø
4.1.86	0-38 38-48	10yr 4/3 10yr 6/6	Sicllo Sicllo	Ø
4.1.89	0-20 20-30	10yr 4/3 10yr 6/6	Sicllo Sicllo	Ø

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062

Project Name: Clay Business Park Phase IB

Excavator(s): SCH

Date: 7/8/2013

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
U.1.90	0-20 20-36	10yr 3/3 10yr 6/6	Sicllo Sicllo	Ø
U.1.94	0-7 7-17	10yr 4/3 2.5yr 4/6	Sicllo Sicllo + 5% gravel	Ø
U.1.96	0-10 10-	10yr 4/3 Water	Sicllo Sicllo	Ø
U.1.100	0-30 30-40	10yr 4/3 10yr 5/2	Sicllo Sicllo	Ø
U.1.103	0-32 32-42	10yr 3/3 10yr 6/5	Sicllo Sicllo + water	Ø
U.1.106	0-30 30-40	10yr 3/3 10yr 6/5	Sicllo Sicllo	Ø
U.1.109	0-33 33-43	10yr 3/3 10yr 5/5	Sicllo Sicllo	Ø
U.1.112	0-19 19-29	10yr 3/3 10yr 6/6	Sicllo Sicllo	Ø
U.1.114	0-24 24-34	10yr 4/4 10yr 6/6	Sicllo Sicllo	Ø

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062

Project Name: Clay Business Park Phase IB

Excavator(s): DB

Date: 7-8-13

Location/Setting: Utility line, other side of Maple Rd.

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
U1.97	→	→		STP not dug due to rainbow slicked standing water approx 4" deep all around
U1.99	0-55 55-65	10yr 4/2 10yr 6/6	CLLo SACL	NCM
U1.102	0-41 41-53	10yr 3/2 10yr 5/4	CLLo SACL	NCM water in STP next to small rill.
U1.105	0-33 33-43	10yr 4/2 10yr 6/3, 5/8	CLLo SACL	NCM Water in STP
U1.107	0-29 29-43	Same	Same	NCM behind gray house on Granger Rd
U1.110	0-30 30-40	Same	Same	NCM next to gurgling illegal pipe
U1.113	0-27 27-37	10yr 4/2 10yr 5/4	Same	NCM power line corridor
U1.116	0-26 26-36	Same	Same	NCM In thick brush next to brush dump
U1.118	0-23 23-33	10yr 5/2 10yr 6/8	CLLO SACL	NCM In Thick Brush
U1.121	0-33 33-43	10yr 5/2 10yr 6/3, 5/8	CLLo SACL	NCM In cut Lawn
U1.125	0-29 29-43	Same	Same	NCM In wo

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062

Project Name: Clay Business Park Phase IB

Excavator(s): SCH

Date: 7/8/2013

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
U.1.117	0-17 17-27	10yr 4/4 10yr 6/6	Sicl lo Sicl lo	Ø
U.1.120	0-30 30-40	10yr 4/3 10yr 5/6	Sicl lo Sicl lo	Ø
U.1.123	0-22 22-	10yr 4/3 10yr 5/6	Sicl lo water	Ø
U.1.124	0-27 27-37	10yr 4/3 10yr 5/6	Sicl lo Sicl lo	Ø
U.1.127	0-16 16-26	10yr 4/3 10yr 6/6	Sicl lo Sicl lo	Ø
U.1.130	0-20 20-30	10yr 4/3 10yr 6/6	Sicl lo Sicl lo	Ø
U.1.133	0-15 15-25	10yr 4/3 10yr 7/8	Sicl lo Sicl lo	Ø
U.1.137	0-17 17-26 26-36	10yr 4/3 10yr 2/2 10yr 4/6	Sicl lo Sicl lo + charcoal Sicl lo	Ø adjacent cut used road related to houses recent burn

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): FMM
Date: 7/8/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
U.1.122	0-28cm 28-41	10YR 4/2 10YR 6/3	SiLo SiLo, water	—
U.1.126	0-19cm 19-32	10YR 4/4 10YR 5/6	SiLo SiLo	—
U.1.129	0-10cm 10-27	10YR 4/3 10YR 5/6	SiLo SiLo	—
U.1.132	0-13cm 13-32	10YR 4/4 10YR 4/6	SiLo SiLo, water	—
U.1.135	0-38cm 38-48	10YR 4/4 10YR 5/6	SiLo SiClLo	—
U.1.141	0-21cm 21-31	10YR 4/4 10YR 4/6	SiLo SiLo	—
U.1.144	0-33cm 33-43	10YR 3/3 10YR 5/6	SiLo SaSi	historic (modern) materials on surface — synth. siding
U.1.149	0-29cm 29-38 38-48	10YR 3/4 mottled 10YR 3/1 10YR 5/6	SiLo SiLo SaSi	—
U.1.154	0-31cm 31-45	10YR 4/4 10YR 7/5	SaSi SaSi	—

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062

Project Name: Clay Business Park Phase IB

Excavator(s): DB

Date: 7-8-13

Location/Setting: utility line - In woods after Maple Rd & Power lines corridor

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
UL 128	0-23 23-33	10yr 5/2 10yr 6/6, 5/8	CLLo SACL	NCM Lots of roots
UL 131	0-23 23-33	Same	Same	NCM In woods
UL 134	0-24 24-34	Same	Same	NCM
UL 136	0-24 24-37	Same	Same	NCM
UL 138	0-39 39-51	10yR 5/2, 6/6 10yr 6/6	CLLo SiSA	NCM Disturbed (cobbles throughout)
UL 140	0-10 10-20 20-33	10yr 5/2 10yr 4/3 10yr 6/6	CLLo SALo SiSA	NCM (cobbles + gravel)
UL 143	0-21 21-31	10yr 5/2 10yr 6/6	CLLo SiSA	NCM
UL 145	0-21 21-31	10yr 3/2 10yr 5/6	CLLo SiSA	NCM
UL 147	0-28 28-38	10yR 4/3 10yr 5/4	CLLo SiSA	NCM
UL 150	0-30 30-40	Same	SALo SiSA	NCM
UL 152	0-30 30-40	Same	Same	NCM last one in woods

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062

Project Name: Clay Business Park Phase IB

Excavator(s): SCH

Date: 7/8/2013

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
U.1.139	0-22 22-32	10yr 4/3 10yr 4/6	Sicl lo + gravel Sicl lo	Ø
U.1.142	0-17 17-27	10yr 4/3 10yr 4/6	Sicl lo Sicl lo	Ø
U.1.146	0-22 22-32	10yr 4/3 10yr 6/5	Sicl lo Sicl lo	Ø
U.1.148	0-14 14-24	10yr 4/3 10yr 5/4	Sicl lo Sicl lo	Ø
U.1.151	0-22 22-32	10yr 4/3 10yr 6/6	Sicl lo Sicl lo	Ø
U.1.153	0-23 23-33	10yr 4/3 10yr 5/4	Sicl lo Sicl lo	Ø
U.1.156	0-28 28-38	10yr 4/3 10yr 5/4	Sicl lo Sicl lo	Ø

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #:	12062	Excavator(s):	DB
Project Name:	Clay Business Park Phase IB	Date:	7-8-13

Location/Setting: open field behind rice & Easy) utility line

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
U1. 155	0-34 34-44	10yr 4/3 10yr 5/6	SA SA	NCM
U1. 157	0-35 35-45	10yr 3/4 10yr 6/8	Si SA Si SA	NCM
U1. 160	0-35 35-45	10yr 4/3 10yr 6/3	SA Si LO	NCM
U1. 163	0-35 35-45	10yr 4/3 10yr 6/6	SA Si SA Si	NCM
U1. 166	0-40 40-50	10yr 4/3 10yr 5/4	SiCL CL Si	NCM In Field After Potato crop. other side of Henry Clay
U1. 169	0-18 18-34	10yr 4/3 10yr 4/6	SiCL SiCL	NCM water in STP
U1. 172	0-12 12-33	Same	Same	NCM Last one at treeline
U1. 174	0-12 12-30	10yr 5/2 10yr 6/4	SiCL CL Si	NCM In very Thick brush
U1. 177	0-20	10yr 4/3	SiCL	NCM Surface water: water In STP
U1. 179	0-23 23-33	10yr 5/2 10yr 5/4	SiCL CL Si	NCM
U1. 182	0-27 27-37	Same	Same	NCM In cut corridor
U1. 186	0-27 27-37	10yr 5/2 10yr 6/3, 5/8	CL LO CL LO	NCM Same

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062 **Excavator(s):** FMM
Project Name: Clay Business Park Phase IB **Date:** 7/9/13

Location/Setting: Utility Pipeline, day 3

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
U.I. 158	0-43cm 43-58	10YR 5/4 10YR 7/5	SaSi SaSi	—
U.I. 162	0-38cm 38-53	10YR 5/4 7.5YR 5/5	SaSi SaSi	—
U.I. 164	0-32cm 32-43	10YR 5/4 10YR 7/5	SaSi SaSi	— last unit before crossing Rd
U.I. 167	0-44cm 44-56	10YR 4/3 10YR 5/4	SiLo SiClLo	—
U.I. 170	0-41cm 41-51	10YR 4/4 10YR 4/6	SiLo SiClLo	—
U.I. 175	0-15cm 15-31	10YR 4/3 10YR 5/5	SiLo SiClLo	—
[illegible]	—	—	—	NO DIG — gas line
U.I. 181	0-26cm 26-37	10YR 4/4 10YR 4/6	SiLo SiClLo	—
U.I. 184	0-31cm 31-43	10YR 4/4 10YR 4/6	SiLo SiClLo	—
U.I. 187	0-20cm 20-32	10YR 4/4 10YR 4/6	SiLo SiClLo	—
U.I. 191	0-35cm	10YR 4/3 mottled with 4/6	SiClLo, w/water + gravel	disturbed, if I had to wager
U.I. 194	0-55cm	10YR 6/2	mud	this isn't wetlands?
U.I. 199	0-24cm 24-41	10YR 4/3 10YR 5/4	SiClLo SiClLo	—
U.I. 204	0-30cm 30-41	10YR 4/3 10YR 5/6	SiClLo SiClLo	—
U.I. 207	0-20cm 20-31	10YR 4/3 10YR 5/6	SiClLo SiClLo	—

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #:	12062	Excavator(s):	SCH
Project Name:	Clay Business Park Phase IB	Date:	7/9/2013

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
U.1.159	0-28 28-38	10yr 4/3 10yr 5/5	Si Lo Si Lo	Ø
U.1.161	0-29 29-39	10yr 4/3 10yr 6/5	SiLo Si lo	Ø
U.1.165	0-31 31-41	10yr 4/3 10yr 6/5	Sicl lo Sicl lo	Ø
U.1.168	0-32 32-42	10yr 4/3 10yr 6/5	Sicl lo Sicl lo	Ø
U.1.171	0-19 19-29	10yr 4/3 compacted	Sicl lo+gravel gravel	Ø
U.1.173	0-24 24-34	10yr 4/3 10yr 5/5	Sicl lo Si cl lo	Ø
U.1.176	0-21 21-31	10yr 4/3 10yr 5/6	Sicl lo Sicl lo	Ø
U.1.178	0-10 10-	10yr 4/3 Water	Sicl lo+water	Ø
U.1.180	0-14 14-24	10yr 4/3 10yr 5/5	Sicl lo Sicl lo	Ø

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): SCH
Date: 7/9/2013

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
U.1.183	0-9 9-21	10yr 4/3 10yr 5/4	Sicl lo Sicl lo+frakr	Ø
U.1.185	0-24 24-34	10yr 4/3 10yr 5/5	Sicl lo Sicl lo	Ø
U.1.188	0-17 17-27	10yr 3/3 10yr 6/6	Sicl lo frakr Silo	Ø Disturbed A
U.1.190	0-15 15+25	10yr 3/3 10yr 5/6	Sicl lo+frakr Sicl lo	Ø
U.1.192	0-18 18 - water	10yr 4/3	Sicl lo Water	Ø
U.1.193	Under Water			Ø
U.1.195	Under Water			Ø
U.1.198	0-18 18-28	10yr 4/3 10yr 5/6	Sicl lo Sicl lo	Ø

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #:	12062	Excavator(s):	DB
Project Name:	Clay Business Park Phase IB	Date:	7-9-13

Location/Setting: Utility line
In cut corridor after ag. field

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
U1, 189	0-15 15-23 23-33	10yr 4/3, 5/6 10yr 5/2 10yr 6/3, 5/8	CLLo CLLo CLLo	disturbed - cobbles gravel NCM NCM
U1, 197	0-20 20-30	10yr 5/2 10yr 6/6	CLLo CLLo	In brush NCM
U1. 200	0-26 26-36	10yr 4/3 10yr 5/4	CLLo CLLo	NCM
U1, 202	0-26 26-36	Same	Same	NCM
U1. 205	0-26 26-36	Same	Same	NCM
U1. 209	0-20 20-30	Same	Same	NCM black tarp frag at interface 20 cm bs. water in STP
U1, 212	0-10	10yr 4/3	CLLo	dense packed gravel. Right next to upraised roadbed.
U1. 216	0-20	10yr 4/2	CLLo	NCM Water In a drainage ditch with running water ☺
U1. 219	0-18 18-30	10yr 3/2 10yr 5/6	CLLo CLLo	NCM next to 2 concrete pilings behind garage
U1. 222	0-15	10yr 3/2	SALo	NCM Clean Fill. on mound with sheds - road gravel

U1. 224 → not dug - on major push pile / dump (Garden) waste

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): SCH
Date: 7/9/2013

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
U.1.201	0-24 24-34	10yr 4/3 10yr 5/4	Sicl lo Sicl lo	Ø
U.1.203	0-22 22-24	10yr 4/3 10yr 5/4	Sicl lo Sicl lo	Ø
U.1.206	0-27 27-37	10yr 4/3 10yr 4/6	Sicl lo Sicl lo	Ø
U.1.208	0-22 22-32	10yr 4/3 10yr 6/3	Sicl lo Sicl lo	Ø
U.1.211	0-14 14-	10yr 4/3 gravel	Sicl lo	compacted gravel drive of some sort
U.1.213	0-19 19-29	10yr 4/3 10yr 5/5	Sicl lo Sicl lo	Ø cinderblock Asphault Bottle dump 10ft east of STP
U.1.217	0-32 32-42	10yr 4/3 10yr 5/5	Sicl lo Sicl lo	Ø
U.1.220	0-15 15-25	10yr 4/3 10yr 4/6	Sicl lo Sicl lo	Ø

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062

Project Name: Clay Business Park Phase IB

Excavator(s): FMM

Date: 7/9/13

Location/Setting: Utility Line, day 3

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
U.1.210	0-28cm 28-38	10YR 6/2 10YR 4/6	SiClLo, water SiClLo, water	—
U.1.214	0-20cm	10YR 6/2	SiClLo	Standing water
U.1.215	0-30cm	10YR 6/2	SiClLo, water	unit fills w/ water
U.1.218	0-19cm 19-30	10YR 3/2 10YR 4/4	SiClLo ClLo	adjacent to hist. foundation filled w/ trash
U.1.221	0-17cm 17-30	10YR 4/4 10YR 5/5	SiLo SiClLo	—
U.1.227	0-30cm	10YR 3/4	SiClLo, gravel	fill
U.1.230	0-24cm	10YR 4/3	SiClLo, gravel	fill
U.1.233	0-15cm 15-19 19-35	10YR 4/4 10YR 5/5 10YR 3/3	SiClLo SiClLo Lo, gravel	fill
U.1.236	0-25cm 25-38	10YR 2/2 10YR 2/2	SiClLo SaSi, water	—
U.1.240	0-24cm 24-36	10YR 2/2 10YR 4/3	SiLo SiClLo	some very modern plastic
U.1.243	0-29cm 29-41	10YR 5/4 10YR 6/5	SiClLo ClLo	—

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #:	12062	**Excavator(s):**	ScH
Project Name:	Clay Business Park Phase IB	**Date:**	7/9/2013

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
U.1.223	0-12 12-	10yr 4/3 compacted gravel embankment	Sicl lo+gravel	Ø X R31
U.1.225	0-8 8-	10yr 4/3 compacted	10yr 4/3 gravel	Ø X R31
U.1.226	0-21 21-	10yr 4/3 compacted gravel	Sicl lo+gravel	Ø
U.1.229	0-14 14-	10yr 4/3 compacted	Sicl lo+gravel gravel	Ø
U.1.232	0-25 25-35	10yr 4/3 10yr 5/3	Sicl lo+gravel Sicl lo+gravel	Ø
U.1.235	0-20 20-30	10yr 3/3 10yr 6/3	Sicl lo Sicl lo	disturbed push Ø
U.1.238	0-52 52-62	10yr 3/3 10yr 6/5	Sicl lo Sicl lo	Ø
U.1.241	0-61 61-71	10yr 3/3 10yr 6/5	Sicl lo Sicl lo	Ø
U.1.244	0-28 28-38	10yR 4/4 10yr 4/6	Sicl lo Sicl lo	Ø

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062

Project Name: Clay Business Park Phase IB

Excavator(s): DB

Date: 7-9-13

Location/Setting: utility line
other side of Rt 31 / Clay fire dept.

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
U1. 228	0-10	10yr 3/2, 5/6	SA Lo (disturbed)	NCM - parking lot gravel, compact
U1. 231	0-20	10yr 3/2, 4/3	CL Lo	NCM - In pushpiles + dump by parking lot soils very compact
U1. 234	→	→		STP not dug due to extreme vertical slope of giant push pile + mini swamp at its base
U1. 237	0-20	10yr 2/2	SA Lo	In another push pile
U1. 239	0-40 40-50	10yr 2/2 10yr 2/1	SA Lo Lo -	On the slopes of same pushpile Burnt wood
U1. 242	0-27 27-37	10yr 5/2 10yr 5/4	cl Lo cl Lo	NCM last on in woods
U1. 245	0-27 27-37	same	same	NCM

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062

Project Name: Clay Business Park Phase IB

Excavator(s): EMM

Date:

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
U.1.246	0-54cm 54-0?	10YR4/4 10YR4/5	SiClLo SaClLo	

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): SCH
Date:

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
U.1.247	0-5	10yr 4/3	Sicllo + gravel	Ø
	5-	Compacted rock and gravel		
U.1.249	0-13	10yr 4/3	Sicllo +	
	13-	Compacted	river cobbles	
U.1 250	0-20	10yr 4/3	Sicl lo	Ø
	20-30	10yr 6/6	Sicl lo	
U.1.251	0-20	10yr 4/3	Sicllo	Ø
	20-30	10yr 6/6	Sicllo	

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062 Excavator(s): FMM
Project Name: Clay Business Park Phase IB Date: 7/10/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
U.1.252	0-10cm 10-29	10YR4/3 10YR4/6	SiClLo SiClLo	—
U.1.257	0-[illegible] [illegible]	10YR4/3 10YR4/5	SiClLo SiClLo	—
U.1.262	0-32cm 32-42	10YR5/4 10YR5/5	SiClLo SiClLo	—
U.1.265	0-29cm 29-39	10YR 4/4 5/4	SiClLo SiClLo	—
U.1.268	0-29cm 29-40	10YR4/4 10YR5/6	SiClLo SiClLo	—
U.1.272	0-38cm 38-49	10YR4/3 10YR4/3	SiClLo SiClLo	—
U.1.275	0-29cm 29-42	10YR4/3 mottled 10YR 7/2, 4/6, 5/2	SiClLo ClLo	—
U.1.280	0-31cm 31-38 38-48	10YR5/4 mottled 10YR7/4 10YR4/6	SiClLo SiLo SiLo	—
U.1.293	0-32cm 32-49	10YR4/3 10YR5/6	SiClLo SiCl gravel	gravel
U.1.299	0-21cm 21-37	10YR4/3 10YR4/4	SiClLo SiClLo gravel water	—
U.1.295	0-38cm 38-49	10YR 5/3 10YR 5/5	SiClLo SiClLo water	—

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062

Project Name: Clay Business Park Phase IB

Excavator(s): SCH

Date: 7/10/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
U.1.254	0-20 20-30	10yr 4/3 10yr 5/5	Sicllo Sicllo	Ø
U.1.256	0-10 10	10yr 4/4 water	Sicllo	Ø
U.1.259	0-32 32-42	10yr 4/4 10yr 5/2	Sicllo Sicllo	Ø
U.1.260	0-27 27-37	10yr 4/4 10yr 5/5	Sicllo Sicllo	Ø
U.1.263	0-21 21-31	10yr 4/4 10yr 5/5	Sicllo Sicllo	Ø
U.1.266	0-20 20-30	10yr 4/4 10yr 5/6	Sicllo Sicllo	Ø
U.1.270	0-24 24-34	10yr 4/4 10yr 5/6	Sicllo Sicllo	Ø
U.1.273	0-22 22-32	10yr 4/4 10yr 5/6	Sicllo Sicllo	Ø
U.1.276	0-23 23-33	10yr 4/4 10yr 5/6	Sicllo Sicllo	Ø
U.1.278	0-19 19-20	10yr 4/4 10yr 5/6	Sicllo Sicllo	Ø
U.1.281	0-27 27-37	10yr 4/4 10yr 5/5	Sicllo Sicllo	Ø
U.1.282	0-31 31-41	10yr 4/4 10yr 5/5 + gravel	Sicllo Sicllo	Ø
U.1.283	0-10 10-	10yr 4/4 water	Sicllo	Ø

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062 **Excavator(s):** DB
Project Name: Clay Business Park Phase IB **Date:** 7-10-13

Location/Setting: Utility line

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
U1, 248	0-27 27-37	10yr 5/2 10yr 5/4	CLLo CLLo	NCM
U1. 253	0-23 23-33	10yr 5/2 10yr 5/8	Same CLLo	NCM NCM
U1, 255	0-19 19-31	10yr 5/2 10yr 6/3, 5/8, 6/1	SIC	
U1. 258	0-30 30-40	10yr 4/3 10yr 5/8	CLLo SiCL	NCM water filled STP
U1. 261	0-26 26-36	10yr 5/2 10yr 5/8	Same	NCM water
U1. 264	0-30 30-40	10yr 5/2 10yr 6/3, 5/8	Same	NCM
U1. 267	0-37 37-47	10yr 4/3 10yr 5/6	Same	NCM
U1. 269	0-30 30-40	Same	Same	NCM
U1. 271	0-36 36-46	Same	Same	NCM
U1. 274	0-36 36-46	Same	Same	NCM
U1, 277	0-37 37-48	Same	Same	NCM
U1. 279	0-37 37-48	Same	Same	NCM
U1. 284	0-28 28-38	Same	Same	NCM
U1. 287	0-19 19-33	10yr 4/3 5YR 6/6	CLLO SiCL	NCM
U1, 291	0-19 19-29	10yr 4/3 10yr 5/6	CLLo SICL	NCM water
U1, 293	0-30 30-40	Same	Same	NCM water

draw a line to separate shovel tests

* MORE ON BACK *

Archeological Survey Field Record Sheet

edr

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): SCH
Date: 2/10/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
U.1.286	0-21 21-	10yr 4/4 Water	Sicl lo –	Ø
U.1.288	0-14 14-	10yr 4/4 Water	Sicl lo –	Ø
U.1.290	0-14 14-	10yr 4/4 Water	Sicl lo –	Ø
U.1.292	0-34 34-44	10yr 4/4 10yr 5/5	Sicl lo sicl lo + Water	Ø
U.1.294	0-27 27-37	10yr 4/3 10yr 4/6	Sicl lo	Ø
U.1.297	0-21 21-31	10yr 4/3 Water	Sicl lo	Ø
U.1.299	0-24 24-34	10yr 4/3 10yr 5/5	Sicl lo Sicl lo	Ø
U.1.301	0-23 23-33	10yr 4/4 10yr 6/3	Sicl lo Sicl lo	Ø
U.1.304	0-31 31-41	10yr 4/4 10yr 6/4	Sicl lo Sicl lo	Ø
U.1.305	0-30 30-46	10yr 4/4 10yr 5/2	Sicl lo Sicl lo	Ø
U.1.308	0-32 32-42	10yr 4/4 10yr 5/5	Sicl lo Sicl lo	Ø
☆ U.1.311 → 10	0-31 31-41	10yr 4/4 10yr 6/5	Sicl lo Sicl lo	Ø
U.1.312	0-22 22	10yr 4/4 gravel	Sicl lo compacted	Ø

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): FMM
Date: 3/10/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
U.1.30?	[illegible] 31-41	10YR5/3 10YR 4/6	SiClLo ClLo, water	—
U.1.30Z	0-31cm 31-47	10YR5/3 mottled 10YR 4/6	SiClLo SiCl, water	—
U.1.30C	0-29cm 29-42	10YR4/3 10YR 4/6	SiClLo SiCl, water	—
U.1.309	0-31cm 31-41	10YR 4/3 10YR 5/6	SiClLo ClLo, water	—
U.1.313 EGT	0-15cm 15-30 30-40	10YR4/3 10YR 4/6 10YR 3/2	SiClLo SiCl SiCl	plastic sheeting @ 30cm between layers
U.1.30N	0-26 26-36	10yr 3/2 10yr 5/6		metal
U1.30E	0 32 32 42	10yr 3/2 10yr 5/6	SiCL SiCL	NCM
U.1 30W	0-22 22-42 42-52	10yr 3/2 10yr 3/3 + 10yr 4/6 10yr 5/6	SiClLo SiClLo SiClLo	Ø
U1.30S	0-29 29-39	10yr 3/2 10yr 5/6	SiCL SiCL	NCM
U.1.30NW	0-9cm 9-36 36-46	10YR 4/4 mottled 10YR4/4 + 4/6 10YR 4/6	SiClLo SiClLo SiClLo	—
30NE	0-19cm 19-29	10YR 3/2 " 5/6	SiClLo SiClLo	

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): DB
Date: 6-10-13

Location/Setting: small grove of old trees
area 1

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
A1	0-17 17-35	10yr 3/2 10yr 5/6	CLLo SiCL	— —
A2	0-23 23-25	10yr 3/4 10yr 5/4	Lo CL Si	— massive roots from very large OAKS
A3	0-35 35-50	10yr 3/2 10yr 5/6	CLLo SiCL	— Water Seepage @ 38
A4	0-24 24-34	10yr 3/3 10yr 5/4	SiLo SiCL	many roots
	EOT			

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062

Project Name: Clay Business Park Phase IB

Excavator(s): FMM

Date: 6/14/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
B.N100.E050	0-19cm 19-39	10YR 4/4 10YR 4/6	SiLo SiLo	—
B.N100,E100	0-19cm 19-42	10YR4/4 10YR4/6	SiLo SiLo; water	—
B.N100.E150	0-33cm 33-45	10YR4/4 10YR4/6	SiLo SiLo; water	—
B.N125.E100	0-43cm 43-56	10YR4/4, mottled 10YR4/6	SiLo SiLo; water	—
B.N125.E125	0-33cm 33-46	10YR 5/4 10YR 7/4	SiLo SiLo	—
B.N125.E150	0-24cm 24-35	10YR 4/4 10YR 4/6	SiLo SiLo; water	adjacent to historic fencing w/metal frame (like metal fence posts) laying flat on ground
B.N100.E200	0-35cm 35-48	10YR4/4 10YR4/6	SiLo SiLo	—
B.N100.E250	0-37cm 37-57	10YR 4/4 10YR 5/6	SiLo ClLo	—
B.N100.E300	0-57cm 57-76	10YR4/4 10YR5/6	SiLo ClLo	—
B.N100.E350 EOT	0-36cm 36-48	10YR4/4 10YR4/6	SiLo SiLo, water	—

Prox. to garage(?)

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): HEATON
Date: 6/14/2013
Location/Setting: "ARCHEOLOGICAL SITE B" (MDS #2 IN PHASE 1A REPORT)

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
B.N150.E50	0-27 cm 27-43 cm	10YR 4/3 10YR 5/4	Si CL LO Si CL LO	NCM; A FEW COAL FRAGMENTS NCM
B.N150.E100	0-23 cm 23-36 cm	10YR 4/3 10YR 5/6	Si CL LO Si CL LO	NCM NCM; TREE ROOTS
~~N??~~ B.N155.E125 (ADJACENT TO N WALL OF FEATURE B1)	0-24cm 24-39cm	10YR 4/3 10YR 5/4	Si CL LO Si CL LO	NCM NCM
B.N150.E150 (IMMED. EAST OF FEATURE B1)	0-27cm 27-40cm 40-48cm	10YR 4/3 10YR 5/4 10YR 6/3	Si CL LO CL LO CL LO	NCM ↓
B.N175.E100	0-25cm 25-46cm	10YR 4/3 10YR 5/4	Si LO Si CL LO	3 COAL CINDERS, 1 PLASTIC NCM
B.N175.E125	0-28cm 28-46cm 46-56cm	10YR 4/3 10YR 5/4 10YR 6/3	Si LO CL LO CL LO	NCM NCM NCM
B.N175.E150	0-33cm 33-51cm	10YR 4/3 10YR 5/4	Si CL LO CL LO	NCM NCM
~~N150E~~ B.N150.E200	0-28cm 28-45cm	10YR 4/3 10YR 5/4	Si CL LO CL LO	NCM NCM
B.N150.E250	0-43cm 43-64cm	10YR 4/3 10YR 5/6	Si LO CL LO	NCM NCM
B.N150.E300	0-36 36-50 cm	10YR 4/3 10YR 5/4	Si LO CL LO	NCM NCM
B.N150.E350	0-31cm 31-40cm	10YR 4/3 10YR 5/4	Si LO CL LO	NCM NCM

H

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #:	12062	Excavator(s):	SCH
Project Name:	Clay Business Park Phase IB	Date:	6/14/2013

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
BN200E050	0-8	10yr 4/3	Sicl lo	Ø Roof debris
	8-19	10yr 5/4	Sicl lo	
	19-41	10yr 4/3	Sicl lo	Ø
	41-62	10yr 5/4	Sicl lo	
	62-82	10yr 4/6	Sicl lo, Damp	1 Nail
	82-96	10yr 5/6	Sicl lo, Damp	Ø
BN200E075	0-7	10yr 4/3		Ø
	7-	Solid yet fractured cement debris		
BN200E100	0-20	10yr 3/3	Sicl lo	wood and building debris
	20-28	10yr 4/6	Sicl lo	Coal and coal burning debris
	28-61	10yr 4/3	Sicl lo	1 roof tile
	61-70	10yR 4/6	Sicl lo	6 brick tile
	70-82	10yr 5/4	Sicl lo, damp	7 Nail
				1 Bullet casing
				9 ceramic
				7 glass
BN200E150	0-24	10yr 4/3	Sicl lo	1 ceramic
	24-34	10yr 4/6	Sicl lo	2 metal
BN225E050	0-12	10yr 4/4	Sicl lo	Ø
	12-53	10yr 5/6	Sicl lo	
	53-63	10yr 6/4	Sicl lo	

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062

Project Name: Clay Business Park Phase IB

Excavator(s): SCH

Date: 6/14/2013

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
BN225 E75	0-17	10yr 4/4	Sicl lo	Ø building cement debris + cobbles
	17-32	10yr 5/6	Sicl lo	
	32-42	10yr 6/4	Sicl lo	
	42-64	10yr 5/6	Sicl lo	2 Nails, 1 Chain, 14 glass
	64-74	10yr 6/4	Sicl lo	Ø
BN225 E100	0-8	10yr 4/4	Sicl lo	+ rocks Ø
	8-	cement debris, Rocks + gravel, visible on surface		
BN200 E200	0-20	10yr 4/4	Sicl lo	Ø
	20-30	10yr 5/6	Sicl lo	Scatter of glass bottles in vicinity on surface.
BN200 E250	0-26	10yr 4/4	Sicl lo	Ø
	26-36	10yr 5/6	Sicl lo	
BN200 E300	0-15	10yr 4/4	Sicl lo	Ø
	15-25	10yr 6/4	Sicl lo	

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): DB
Date: 6-14-13

Location/Setting: Historic House Site - B
In open area near Road.

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
B. N260. E050	0-30	10yR 4/3 br	CL Si	—
	30-47	10yR 4/4 dkylbr	CL Si	—
	47-57	10yr 3/2 dkgrbr	Si CL	Water @ 47 cmbs Few coal smudges in sub
B. N250. E.075	0-20	10yr 3/2 dkgrbr	SiCL compact	topsoil fill
	20-40	10yR 5/6, 3/2	SiCL loose	Fill
	40-60	10yr 3/3, 3/2, 5/6	SiCL wet	fill with some coal ash and coal smudges
	60-70	10yr 5/8	SiCL wet	3 bone, 1 clear vessel glass
				StP filled with water @ 70cmbs
				NCM
B. N250 E.100	0-30	10yr 3/2, 5/4	SiCL	1 bone 20-30cmbs
	30-54	10yr 4/6	SiCL	Water @ 44 cmbs
B. N250 E150	Surface debris & stand of garlic		Buckets, paint cans, auto parts, bed springs, cables, bolts, bones, mason jars, wine bottles, more	just inside trees - seems to be a push pile of historic debris - household, auto, building etc. (surface)
	0-55	10yR 3/3 DK br	CL Lo	Coal Ash, misc metal not kept
	55-65	10yR 4/3 br	SiCL	NCM
B N250 E200	0-35	10yr 4/2 dk gr br	CLLo	next to tile drain pipe opens into stream/swamp 1 glass vessel, 1 ceramic? 4 misc metal (poss. nails)
	35-48	10yr 5/6 ylbr	SiCL	Water seepage @ 35 cmbs

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): DB
Date: 6-14-13

Location/Setting: Historic House Site B

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
B. N. 300 E. 050	0-38 38-48	10yr 3/2 v dk gr br 10yr 4/3 br	CLLo SiCL	Road gravel, Asphalt —
B N. 300 E. 100	0-14 14-30	10yr 3/2 10yr 4/4	SALo wet SA	asphalt, gravel, rocks, con water seepage @ 17 cm
B. N. 300 E. 150	surface debris →		Truck parts, 5 gal. drums, tires, concrete, blocks, etc.	Just inside treeline on debris pushpile more garlic
	0-17 17-30	10yr 3/2 10yr 5/6	CLLo SiCL	— —
B. N 300 E 200	0-27 27-40	10yr 3/1 10yr 6/3, 5/6	CLLo SiCL	Watercress on surface water @ 30 cmbs
EOT				

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): DB
Date: 6-14-13

Location/Setting: Historic House Site B

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
B. N350 E050	0-30 30-40	10yr 4/2 grbr 10yR 6/3 pale br 10yr 5/8 ylbr	clLo SicL	water seepage @ 37cmbs
B N350 E 100	0-29 →	10yr 4/2 grbr roots / water	cllo	very wet surface & an absolute carpet of thick roots 3m in all directions for 2 very large old trees.
B. N350 E150	0-35 35 45	10yr 4/2 10yr 6/3, 5/4	cllo SicL	— —
B N350 E 200	0-16 16-40	10yr 4/2 10yr 6/3, 5/4	cllo SicL	2 Ft West of a slab or foundation STP has large chunks of broken concrete in 1st level. NCM
B N350 E 250	0-34 34-48	10yr 4/2 10yr 5/3, 5/6	clLo SicL	— —
B N350 E 300	0-27 27-41	10yr 4/3 10yr 5/3, 5/6	cllo SicL	In the sea of raspberries —
	EOT			

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): DB - SAm
Date: 6-14-13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
B. N400 E 050	0-35 35-50	10yr 4/2 10yr 5/6, 5/3	CLLo SiCL	Very wet NCM
B N 400 E 100	0-10 10-24	10yr 4/2 10yr 6/6	CLLo SiCL	Water @ 10cmbs (In woods)
B N 400 E 150	0-24 24-34	10yR 4/2 10yR 6/4	CLLo SiCL	— —
B N 400 E 200	0-27 27-37	10yr 4/2 10yr 5/6	Cl lo SiCL	— —
B N400 E250	0-27 27-37	10yr 4/2 10yr 5/6	CLLo SiCL	— —

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

ORIGINAL GRID (8×7) 56

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): DB
Date: 6-25-13
Location/Setting: MDS 2/C

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
C ~~N 200 E 000~~				~~Road side~~
C N 200 E 050	0-32 32-42	10yr 3/2 10yr 5/8	ClLo SiCL	In a wetland area
C N 200 E 100	0-28 28-38	Same	ClLo SiCL	1 Whiteware 1 clear vessel glass
C N200 E150	0-30 30-40	Same	Same	1 Flat glass 1 tiny brick frag } both discarded In the Knotweed
C N 200 E 200	0-30 30-40	Same	Same	In Knotweed with Periwinkle ground cover
	See S.H. paperwork for the rest			

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): DB
Date: 6-25-13

Location/Setting: MDS: 2 / C

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
C ~~N 300 E 000~~	—	—	—	~~@ Roadside~~
C N 300 E 050	0-34 34-45	10yR 4/3 10yr 5/4	silo silo	— In a grove of old trees
C N 300 E 100	0-17 17-35	10yr 4/2 10yr 5/6	CLLo si cL	In a tunnel of Japanese Knotweed about 12ft S of other cobblestone well.
C N 300 E 150	0-45	10yr 4/2, 5/6 disturbed	CL Si	approx 12ft S of largest, oldest Maple In the Knotweed.
C N 300 E 200	0-37 37-47	10yr 4/2 10yr 5/6	Silo CL Si	3 clear vessel glass - not Kept because found with Styrofoam + a 1980's era Kids Juice container - plastic. In the Knotweed still
C N 300 E 250	0-25 25-35	10yr 4/3 10yr 5/8	silo silo	next to massive grape vines. Partially in the Knotweed
C N 300 E 300	0-27 27-37	Same	Same	
C N 300 E 350	0-25 25-35	10yr 4/3 10yr 4/6	Silo. silo	approx 10ft W is a dump site w 5 gallon metal buckets, misc Jars + metal.
BOT				

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): SCH
Date: 6/25/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
N350 E150	0-35 35-45	10yr 4/3 10yr 6/4	Sicl lo Sicl lo	1 Axe head 1 shotgun Shell (used)
N350 E200	0-33 33-43	10yr 4/3 10yr 5/2	Sicl lo Sicl lo	in depression with rocks, visible metal near. Window Glass
N350 E250	0-25 25-	10yr 4/4 Cement or stone	Sicl lo impasse	Ø
N350 E300	0-30 30-40	10yr 4/3 10yr 6/4	Sicl lo Sicl lo	Ø
N250 E300	0-25 25-35	10yr 4/4 10yr 6/6	Sicl lo Sicl lo	Ø
N250 E250	0-20 20-30	10yr 4/4 10yr 6/6	Sicl lo Sicl lo	Ø
N200 E300	0-22 22-32	10yr 4/4 10yr 6/4	Sicl lo Sicl lo	Ø
N200 E250	0-25 25-35	10yr 4/3 10yr 6/4	Sicl lo Sicl lo	Ø

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062

Project Name: Clay Business Park Phase IB

Excavator(s): DB

Date: 6-25-13

Location/Setting: MDS: 2C

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
C ~~N. 400 E. 000~~				~~not dug @ roadside Stand of tiger lilies~~
C N 400 E ~~050~~	0-24 24-37	10yr 3/2 10yr 5/8	CLLo SiCL	— —
C N 400 E 100	0-30 30-41	10yr 4/2 10yr 5/6	CLLo SiCL	1 Flat glass – discarded In an area with many boulders, slightly submerged and covered with moss
C N 400 E 150	0-14 14-27	10 yr 4/2 10yr 5/4, 6/3	CLLo SiCL	Right next to old metal door buried under vines/brush Rocks @ bottom of stp
C N400 E 200	0-17 17-33	10yr 3/3 10yr 5/8	CLLo CLLo	Cobblestone well under brush is between last stp + this one concrete building material
C N400 E 250	0-13 13-27	10yr 3/3 10yr 5/6	SiLo SiLo	0.8 cm 1/2 of orange brick with letters SS. Left on surface under flag. Lots of roots.
C N400 E 300	0-25 25-35	10yr 4/3 10yr 6/6	CL Si CL Si	In Raspberry hell.
C N400 E 350	0-30 30-40	10yr 4/2 with a lens of 8/1 Si 10yR 5/8	CL Si Si ClSi	In mosquito hell
	EOT			

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062
Excavator(s): FMM
Project Name: Clay Business Park Phase IB
Date: 6/25/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
C.N450.E050	0-22cm 22-35	10YR 3/4 10YR 4/6	SiLo SiLo	—
C.N450.E100	0-27cm 27-37	10YR 3/2 10YR 4/6	SiLo SiLo, gravel	an array of modern (post 1940s/50s) artifacts (rubber, glass, jars, tires, chicken wire) ... very close to 3rd (4th?) well
C.N450.E150	0-20cm 20-31	10YR 3/2 10YR 4/6	SiLo SiLo, gravel	brick + glass fragments, some metal... near to barn foundation
C.N.450.E200	0-19cm 19-33	10YR 3/3 10YR 4/6	SiLo SiLo	—
C.N450.E250	0-19cm 19-32	10YR 3/3 10YR 4/6	SiLo SiLo	some nails
C.N450.E300	0-11cm 11-26 26-49	10YR 3/2 10YR 3/4 10YR 4/6	SiLo SiLo SiLo	—
C.N450.E350 FGT	0-22cm 22-34	10YR 4/4 10YR 4/6	SiLo SiLo	some nail fragments; near a significant pile of rocks
C.N250.E050	0-24cm 24-44	10YR 4/4 10YR 5/6	SiLo SiLo	—
C.N250.E100	0-33cm 33-45	10YR 3/3 10YR 4/6	SiLo SiLo	mortared stone
C.N250.E150	0-22cm 22-36	10YR 4/4 10YR 5/6	SiLo SiLo	whiteware — teacup, glass frag.
C.N250.E200	0-27cm 27-39	10YR 4/4 10YR 4/6	SiLo SiLo	—

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062

Project Name: Clay Business Park Phase IB

Excavator(s): SCH

Date: 6/25/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
N500 E050	0-22 22-32	10yr 4/3 10yr 6/4	Sicllo Sicllo	Ø
N500 E100	0-26 26-36	10yr 4/3 10yr 6/3	Sicllo Sicllo	Ø
N500 E150	0-24 24-34	10yr 4/3 10yr 6/6	Sicllo Sicllo	modern glass bottle asphalt roofing window glass
N500 E200	0-17 17-27	10yr 4/3 10yr 6/6 m	Sicllo Sicllo	window glass
N500 E250	0-16 16-26	10yr 4/3 10yr 6/4	Sicllo Sicllo	Ø
N500 E300	0-15 15-25	10yr 4/3 10yr 6/4	Sicllo Sicllo	Ø
N350 E050	0-25 25-75 80-	10yr 3/3 10yr 5/3 10yr 4/6	Sicllo Sicllo Sicllo	layer of fill over disturbed layer w brick and mortar subhor charcoal and brick color mottles 1 ceramic/plastic?
N350 E100	0-10 10-	10yr 4/3 compacted gravel impasse	Sicllo	Drive?

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): FM, JH, DB
Date: 6/19/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
C.N550.E050	0-30cm 30-40	10YR 4/3 10YR6/4	SiLo SiLo	—
C.N550.E100	0-28cm 28-46	10YR4/3 10YR 6/4	SiLo SiLo	—
C.N550.E150	0-40cm 40-50	10YR3/3 10YR6/4	SiLo ClSi	— pebbles/sm. cobbles in subsoil
C.N550.E200	0-38 38-51	10yr 3/3 10yr 6/4	SiLo CLSi	pebbles + small cobbles throughout
C.N550.E250	0-28 28-38	10yr 3/3 10yr 6/4	SiLo SiLo	Ø
C.N550.E300	0-32cm 32-52	10YR4/3 10YRG/4	SiLo SiLo	—
C.N550.E350	0-23cm 23-33	10YR3/3 10YR6/4	SiLo SiLo	—

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): SCH
Date: 06.25.2013

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
N250E350	0-20 20-30	10yr 4/3 10yr 6/4	Sicllo Sicllo	Ø Ø
N200E350	0-27 27-37	10yr 4/3 10yr 6/4	Sicllo Sicllo	Ø
N500E350	0-28 28-38	10yr 4/3 10yr 6/4	Sicllo Sicllo	Ø

draw a line to separate shovel tests

SUPPLEMENTAL STs FOR DELINEATION

29 TOTAL

Archeological Survey Field Record Sheet

edr

edr Project #: 12062

Excavator(s): DB

Project Name: Clay Business Park Phase IB

Date: 7-1-13

Location/Setting:

	Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
C	N200 E225	0-27 27-41	10yr 4/2 10yr 5/6	CLLo CLLo	NCM
C	N200 E175	0-35 35-47	Same	Same	1 whiteware 0-5 cmbs NCM
C	N200 E075	0-31	10yr 3/2	CLLo	1 Stoneware 0-5 cmbs multiple large boulders Impass

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Excavator(s): FMM
Date: 7/1/13

Location/Setting: MDS3

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
C.N225.E050	0-38cm 38-54	10YR4/3 10YR4/6	SiLo SiLo, water	possible architectural stone
C.N225.E075	0-34cm 34-61	10YR3/3 10YR7/5	SiLo SiLo	minor brick fragments
C.N225.E100	0-31cm 31-43 43-53	10YR 3/2 10YR 6/3 mottled 10YR 5/8, 6/8, 4/2	SiClLo SaLo SiCl	—
C.N225.E125	0-41cm 41-74	10YR3/2 10YR4/5	SiClLo SiClLo	minor coal frag
C.N225.E200	0-21cm 21-44	10YR 3/2 7.5YR 4/6	SiLo SiLo	twined metal cable
C.N225.E225	0-24cm 24-35	10YR 3/4 10YR 4/6	SiLo SiLo	metal button/misc. metal frag.
C.N200.E125	0-33cm 33-56	10YR 2/2 10YR 5/6	SiLo Si, water	ceramic, glass, coal

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #:	12062	Excavator(s):	DB
Project Name:	Clay Business Park Phase IB	Date:	7-1-13

Location/Setting: MDS-2 Radials

	Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
C	N250 E025	0-37 37-57	10yr 3/2 vdk gr br 10yr 5/8 y l br	cllo sicl	NCM NCM Few med. cobbles in sub soil
C	N250 E075	0-27 27-45	Same	CLLO SiCL	1 Flat glass 0-10cm 0-20cm - 1/2 concrete block with 3 large cobbles under and around it - N WALL 23-27cm - a lump of mortar N. wall NCM in subsoil
C	N250 E125	0-47	10yr 3/2	cllo	1 nail, 1 staple, 1 flat glass 1 mortar sample, 1 fabric strip 30-37 large boulder 47cm - multiple rock impass mortar shatter throughout STP
*	between N250 E100 and N250 E125 foundation wall on surface				
C	N225 E150	0-36 36-54	10YR 3/2 10yr 5/8	CL LO (soils moist) CL LO	1 flat glass, 1 vessel glass 1 stoneware all 0-5 cmbs 1 stoneware surface find
C	N225 E175	0-27 27-41	Same	Same	2 flat glass 2 white ware 0-5 cmbs
C	N250 E225	0-30 30-40	10yr 4/2 7.5yr 5/6	cllo sicl	NCM

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062
Project Name: Clay Business Park Phase IB
Location/Setting:

Excavator(s): SCH
Date: 7/1/13

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
N275E175	0-18 18-30	10yr 3/3 10yr 4/6	Sicl lo Sicl lo	H
N275E200	0-23 23-33	10yr 4/3 10yr 5/8	Sicl lo Sicl lo	H
N300E225	0-22 22-	10yr 4/3 Rock Impasse	Sicl lo	~~motar and gravel~~ motar and gravel
N275E225	0-23 23-33	10yr 4/3 10yr 6/6	Sicl lo Sicl lo	H
N300E175	0-45 45-55	10yr 4/3 10yr 5/5	Sicl lo Sicl lo	Ø
N300E125	0-21 21-31	10yr 4/3 10yr 5/4	Sicl lo Sicl lo	25 feet north to open well Heavy gravel
N300E75	0-23 23-33	10yr 4/3 10yr 6/4	Sicl lo Sicl lo	Ø

draw a line to separate shovel tests

Archeological Survey Field Record Sheet

edr

edr Project #: 12062

Project Name: Clay Business Park Phase IB

Excavator(s): SCH

Date: 7/1/13

Location/Setting:

Shovel Test	Depth	Soil Color	Soil Texture	Artifacts/Comments
N275E50	0-60 60-70	10yr 4/3 10yr 5/6	Sicl lo Sicl lo	Ø
N275E75	0-80 80-90	10yr 4/3 10yr 5/8	Sicl lo Sicl lo	Visible historics 1 ceramic, 1 bullet casing, glass 1 nail, 1 brick, 1 metal, 3 mortar
N275E100	0-15 15-32 32-47	10yr 4/3 10yr 3/3 10yr 4/4	Sicl lo Sicl lo Sicl lo	unit began with a layer of near sterile soil. disturbance and building materials were found in level 2. Level 3 was a compacted material including around various desambegurated foundational shaped architectural tile, charcoal throughout
N275E125	0-18 18-63 63-73	10yr 3/3 10yr 4/4 10yr 5/5	Sicl lo Sicl lo Sicl lo	H
N275E150	0-32 32-	10yr 4/3 Rock impasse	Sicl lo	visible large pieces of concrete directly adjacent unit
N250E175	0-8 8-14 14-33 33-45	10yr 3/3 10yr 4/4 10yr 3/2 10yr 5/5	Sicl lo Sicl lo Sicl lo Sicl lo	H

draw a line to separate shovel tests

Appendix E:

Artifact Inventory

Shovel Test	Stratum	Depth	Count	Description	Comments	Date Range
1.1.18	1	0-28 cm	1	misc. metal; ferrous	06/04/13, FMM	unk.
1.1.22	1	0-28 cm	1	can fragment (food—container); aluminum	06/04/13, FMM	20th cent.
1.1.37	1	0-30 cm	1	staple (architectural—fence post); ferrous	06/05/13, FMM	19th-20th cent.
1.1.45	1	0-30 cm	1	charcoal	06/05/13, FMM	unk.
2.2.17	1	0-32 cm	7	nail (1), flat/window glass (1), glass slag (1), brick (1), asphalt tile (3); architectural	6/11/2013, SCH	19th-20th cent.
2.3.18	1	0-18 cm	1	nail (architectural); ferrous	06/12/13, DB	19th-20th cent.
3.1.22	1	0-28 cm	1	misc. metal; ferrous	06/03/13, FMM	19th-20th cent.
3.1.65	1	0-28 cm	1	nail (architectural); ferrous	06/12/13, FMM	19th-20th cent.
5.1.23	1	0-22 cm	2	nail (architectural), shotgun casing; ferrous	06/21/13, FMM	unk.
B.N100-E350	1	0-48 cm	3	nails and wire (architectural); ferrous	06/14/13, FMM	19th-20th cent.
B.N175-E100	1	0-25 cm	4	coal cinder (3), plastic (1)	06/14/13, PH	unk.
B.N200-E050	2	62-82 cm	1	nail (architectural); ferrous	06/14/13, SCH	19th-20th cent.
B.N200-E100	1	0-82 cm	31	roof tile (1), brick (1), nails (7), metal—bullet casing (1), ceramic (14—6 terracotta, 8	06/14/13, SCH	var.
B.N200-E150	1	0-34 cm	3	whiteware (1), nails (2)	06/14/13, SCH	19th-20th cent.
B.N225-E075	2	42-64 cm	17	nails (2), metal chain (1), flat/window glass (14)	06/14/13, SCH	19th-20th cent.
B.N250-E075	2	40-60 cm	4	bone (3), flat/window glass (1)	06/14/13, DB	unk.
B.N250-E100	2	20-30 cm	1	bone (animal); cut	06/14/13, DB	unk.
B.N250-E200	1	0-35 cm	6	misc. metal (4), ceramic (1), glass (1—food, serving)	06/14/13, SCH	19th-20th cent.
B.N350-E050	2	30-40 cm	1	ceramic (1—decorative tile)	06/25/13, SCH	unk.
C.N200-E075	1	0-5 cm	1	ceramic (1—stoneware)	07/01/13, DB	19th-20th cent.
C.N200-E100	1	0-28 cm	2	whiteware (1), glass (1); food—serving	06/23/13, DB	20th cent.
C.N200-E125	1	0-33 cm	7	ceramic (2—stoneware), flat glass (2), coal (2), slag (1)	07/01/13, FMM	19th-20th cent.
C.N200-E175	1	0-5 cm	1	ceramic (1—whiteware)	07/01/13, DB	19th-20th cent.
C.N225-E075	1	0-34 cm	2	brick frag. (2)	07/01/13, FMM	19th-20th cent.
C.N225-E125	0	surface	7	tile (4), brick frag. (2), mortar w/ brick frag. (1)	07/01/13, FMM	19th-20th cent.
C.N225-E125	1	0-41 cm	2	coal frag. (2)	07/01/13, FMM	unk.
C.N225-E150	1	0-5 cm	4	ceramic (2—stoneware), flat glass (1), vessel glass (1)	07/01/13, DB	19th-20th cent.
C.N225-E175	1	0-5 cm	4	flat glass (2), whiteware (2)	07/01/13, DB	19th-20th cent.
C.N225-E225	1	0-24 cm	8	metal button & assoc. frag.	07/01/13, FMM	19th cent.
C.N250-E075	1	0-10 cm	1	flat glass (1)	07/01/13, DB	19th-20th cent.
C.N250-E100	1	0-30 cm	8	mortar (7), flat limestone w/ mortar (1); architectural	06/25/13, FMM	unk.
C.N250-E125	1	0-20 cm	5	nail (1), staple (1), flat glass (1), mortar frag. (1), fabric strip (1)	07/01/13, DB	19th-20th cent.
C.N250-E150	1	0-30 cm	3	whiteware (food—serving), flat/window glass	06/25/13, FMM	19th-20th cent.

Shovel Test	Stratum	Depth	Count	Description	Comments	Date Range
C.N250-E175	1	0-20 cm	6	ceramic (2—whiteware), coal ash (1), coal (1—anthracite), flat glass (1), brick frag. (1)	07/01/13, SCH/TAK	19th-20th cent.
C.N275-E075	2	40-80 cm	9	ceramic (1—whiteware), bullet casing (1), vessel glass (1), nail frag. (1), brick frag. (1),	07/01/13, SCH	19th-20th cent.
C.N275-E100	1	0-20 cm	4	brick frag. (1), nail (1), ceramic (1), flat glass (1)	07/01/13, SCH/TAK	19th-20th cent.
C.N275-E125	1	0-20 cm	6	flat glass (2), vessel glass (1), ceramic (1—whiteware), ceramic (2—redware)	07/01/13, SCH/TAK	19th-20th cent.
C.N275-E175	1	0-20 cm	1	nail (1)	07/01/13, SCH	19th cent.
C.N275-E200	1	0-20 cm	3	flat glass (1), vessel glass (1), mortar sample (1)	07/01/13, SCH	19th-20th cent.
C.N300-E075	1	0-20 cm	7	ceramic (3—whiteware), flat glass (3), vessel glass (1)	07/01/13, SCH	19th-20th cent.
C.N350-E150	1	0-35 cm	2	metal axehead (1), shotgun casing (1)	06/25/13, SCH	var.
C.N450-E100	1	0-28 cm	5	nail (1), misc. metal (2), flat/window glass (1), rubber hose (1)	06/25/13, FMM	19th-20th cent.
C.N450-E150	1	0-30 cm	10	brick (4), clear vessel glass (2—food, serving), flat/window glass (1), slate	06/25/13, FMM	19th-20th cent.
C.N450-E250	1	0-27 cm	7	nails (architectural), plastic-coated wire; ferrous	06/25/13, FMM	19th-20th cent.
C.N450-E350	1	0-22 cm	4	nails and wire (architectural); ferrous	06/23/13, FMM	19th-20th cent.
U.1.30	1	0-43 cm	3	plaster frag. (1), ceramic (1), vessel glass (1)	07/03/13, FMM	19th cent.
U.1.66	1	0-18 cm	4	coal (2), ceramic (2)	07/08/13, FMM	19th-20th cent.
U.1.80	1	0-46 cm	1	stone w/concrete (architectural)	07/08/13, FMM	unk.
			214	**Total Artifacts**		

Appendix F:

NYSOPRHP Archeological Site Inventory Forms

NEW YORK STATE HISTORIC ARCHAEOLOGICAL SITE INVENTORY FORM
NYS OFFICE OF PARKS, RECREATION & HISTORIC PRESERVATION
(518) 237-8643

Bernadette Castro
Commissioner

For Office Use Only—Site Identifier

Project Identifier: White Pine Commerce Park, Phase 1 Archeological Survey

Your Name: Francis M. McCormick/T. Arron Kotlensky, RPA/ Patrick J. Heaton, RPA/Grant Johnson   Date: June-July 2013
Address: 217 Montgomery St, Suite 1000, Syracuse, NY 13202   Phone: (315) 471-0688
Organization: EDR Environmental Services, LLC

1. SITE IDENTIFIER(S): Caughdenoy Road MDS 1
2. COUNTY: Onondaga   One of the following: CITY
   TOWNSHIP Clay
   INCORPORATED VILLAGE
   UNINCORPORATED VILLAGE OR HAMLET

3. PRESENT OWNER: Onondaga County Industrial Development Agency
   Address: 333 W. Washington Street, Suite 130, Syracuse, New York 13202

4. SITE DESCRIPTION (check all appropriate categories):Structure/site
   Superstructure: complete___ partial___ collapsed ___ not evident __x
   Foundation: above _x_ below _x_ (ground level) not evident
   ___ Structural subdivisions apparent ___Only surface traces visible
   ___ Buried traces detected
   List construction materials (be as specific as possible): concrete w/ iron rebar, fieldstones, cobblestones

   Grounds
   ___Under cultivation ___Sustaining erosion ___Woodland ___Upland
   ___Never cultivated _x_Previously cultivated ___Floodplain ___Pastureland
   Soil Drainage: excellent ___ good ___ fair ___ poor _x
   Distance to nearest water from structure (approx.): 260m
   Elevation: 120m

5. SITE INVESTIGATION (append additional sheets, if necessary):
   Surface Collection—date(s): __________ Site map (submit with form*)
   Subsurface Testing—date(s): June-July 2013 (Submit plan of units with form*)
   shovel _x_ coring ___ other ___ unit size _35-50cm
   no. units _51
   Excavation: unit size ____ no. of units ____ (Submit plan of units with form*)
   * Submission should be 8 ½" by 11", if feasible

   Investigator: Patrick J. Heaton, RPA/T Arron Kotlensky, RPA (EDR Environmental Services, LLC)

   Manuscript or published report (s) (reference fully):
   EDR, 2013. *Phase 1 Archeological Survey, White Pine Commerce Park, Town of Clay, Onondaga County, New York*. Prepared for CHA and Onondaga County Industrial Development Agency, Syracuse, NY.

   Present repository of materials: EDR, Syracuse, New York

6. SITE INVENTORY:
   a. Date constructed or occupation period: 1850s-1960s/1970s
   b. Previous owners, if known:
      Henry Summers (ca. 1850s-1860s)
      Isaac Van Vleck (ca. 1870s-1890s)
   c. Modifications, if known (append additional sheets, if necessary):

7. SITE DOCUMENTATION (append additional sheets, if necessary):

a. Historic map references

1) Name: Fagan *Map of Onondaga County* Date: 1854
Source: Onondaga Historical Association Present location of original: Syracuse, NY

2) Name: Sweet *Map of Onondaga County* Date: 1860
Source: Ancestry.com Present location of original:

3) Name: Sweet *Map of Onondaga County* Date: 1874
Source: Ancestry.com Present location of original:

4) Name: Sweet *Map of Onondaga County* Date: 1889
Source: Onondaga Historical Association Present location of original: Syracuse, NY

5) Name: USGS Topographical Map: *Syracuse, NY* Date: 1898
Source: United States Geological Survey Present location of original: Washington, D.C.

6) Name: USGS Topographical Map: *Brewerton, NY* Date: 1943
Source: United States Geological Survey Present location of original: Washington, D.C.

b. Representation in existing photography: none identified

c. Primary and secondary source of documentation (reference fully):

Caughdenoy Road MDS 1 is first identified in the 1854 Fagan *Map of Onondaga County*, which identifies the structure as belonging to an H. Summer (almost certainly the Henry Summers listed in the 1850 census (U.S. Census Bureau, 1850). H. Summers is listed as the resident of this location in the 1860 Sweet *Map of Onondaga County*. However, the 1874 Sweet *Map of Onondaga County* and the 1889 Sweet *Map of Onondaga County* list I. Van Vleck, most likely the Isaac Van Vleck identified by the 1870 census as a farmer in the Town of Clay, as the resident of this property. The house and garage stood (vacant) on the site ca. 2004 but were demolished before about 2008 (see EDR report).

d. Persons with memory of site

1) Name M. Provo Address Jerome Fire Equipment Co., Inc., Caughdenoy Road, Clay, NY

8. LIST OF MATERIAL REMAINS (be as specific as possible in identifying object and material):

The Caughdenoy Road MDS 1 site contains the probable remnants of a house, garage, barn, silo, and well. In total, 71 artifacts were recovered from 10 shovel tests at the site. Almost all of the artifacts recovered from the site were from shovel tests located in the immediate vicinity of either Feature B1 (the garage foundation) or the former house site. The majority of recovered artifacts were ceramic, glass, and metal, including white earthenware, flower pot terracotta, architectural metal/hardware (primarily wire nails), flat/window glass with smaller quantities of serving/vessel glassware fragments, and miscellaneous/unidentified metal fragments. A few bone fragments were recovered, including one piece of cut bone, several pieces of coal ash, one piece of plastic, one .22 caliber cartridge, a fragment of roof tile, and one decorative ceramic tile fragment. No prehistoric artifacts were recovered during the survey of the site. Artifacts recovered from the site date between the second half of the nineteenth century and the mid-to-late twentieth century.

In addition, as described above there is a series of push-piles located east of the former house site. Scattered piles of domestic refuse are distributed on the ground surface across and around these push piles. This refuse includes metal buckets, paint cans, metal drums/barrels, box-springs, metal hardware (bolts, rods, and cables), agricultural implements, automobile/truck parts, rubber tires, concrete blocks/fragments, butchered bone fragments, canning and mason jars, stoneware crocks, plastic jugs/bottles, and glass bottles. In general, the dates of the materials included in this scattered rubbish are consistent with the assumed abandonment of the property, i.e., during the mid to late twentieth century. Based on the terminal dating of the artifact assemblage, the house site was may have been abandoned as early as the 1960s or 1970s.

If prehistoric materials are evident, check here and fill out prehistoric site form. N/A

9. MAP REFERENCES: Map or maps showing exact location and extent of site must accompany this form and be identified by source and date. Keep this submission to 8½" x 11", if possible.
USGS 7.5 Minute Series Quadrangle Name: Brewerton, NY
UTM Coordinates: (NAD83 UTM Zone 18T: Easting 405212.08; Northing 4782881.46)

10. PHOTOGRAPHY (optional for environmental impact survey): See referenced report.

NEW YORK STATE HISTORIC ARCHAEOLOGICAL SITE INVENTORY FORM
NYS OFFICE OF PARKS, RECREATION & HISTORIC PRESERVATION
(518) 237-8643

Bernadette Castro
Commissioner

For Office Use Only—Site Identifier

Project Identifier: White Pine Commerce Park, Phase 1 Archeological Survey

Your Name: Francis M. McCormick/T. Arron Kotlensky, RPA/ Patrick J. Heaton, RPA/Grant Johnson
Date: June-July 2013
Address: 217 Montgomery St, Suite 1000 Syracuse, NY 13202
Phone: (315) 471-0688
Organization: EDR Environmental Services, LLC

1. SITE IDENTIFIER(s): Caughdenoy Road MDS 2
2. COUNTY: Onondaga One of the following: CITY
TOWNSHIP Clay
INCORPORATED VILLAGE
UNINCORPORATED VILLAGE OR HAMLET

3. PRESENT OWNER: Onondaga County Industrial Development Agency
Address: 333 W. Washington Street, Suite 130, Syracuse, New York 13202

4. SITE DESCRIPTION (check all appropriate categories):Structure/site
Superstructure: complete___ partial___ collapsed ___ not evident x
Foundation: above x below x (ground level) not evident
___ Structural subdivisions apparent ___Only surface traces visible
___ Buried traces detected
List construction materials (be as specific as possible): concrete w/ iron rebar, fieldstones, cobblestones

Grounds
___Under cultivation ___Sustaining erosion ___Woodland ___Upland
___Never cultivated x Previously cultivated x Floodplain ___Pastureland
Soil Drainage: excellent ___ good ___ fair ___ poor x
Distance to nearest water from structure (approx.): 475m
Elevation: 123m

5. SITE INVESTIGATION (append additional sheets, if necessary):
Surface Collection—date(s): __________ Site map (submit with form*)
Subsurface Testing—date(s): June-July 2013 (Submit plan of units with form*)
shovel x coring ___ other ___ unit size 35-50cm
no. units 85
Excavation: unit size _____ no. of units _____ (Submit plan of units with form*)
* Submission should be 8 ½" by 11", if feasible

Investigator: Patrick J. Heaton, RPA/T. Arron Kotlensky, RPA (EDR Environmental Services, LLC)

Manuscript or published report (s) (reference fully):
EDR, 2013. *Phase 1 Archeological Survey, White Pine Commerce Park, Town of Clay, Onondaga County, New York*. Prepared for CHA and Onondaga County Industrial Development Agency, Syracuse, NY.
Present repository of materials: EDR, Syracuse, New York

6. SITE INVENTORY:
a. Date constructed or occupation period: 1854-1943
b. Previous owners, if known:
Cornelius Mogg (1850s)
William H. Muir Ostrander (1860s)
Irving Freeman (1870s-1890s)
c. Modifications, if known (append additional sheets, if necessary):

7. SITE DOCUMENTATION (append additional sheets, if necessary):

a. Historic map references

1) Name: Fagan *Map of Onondaga County* Date: 1854
Source: Onondaga Historical Association Present location of original: Syracuse, NY

2) Name: Sweet *Map of Onondaga County* Date: 1860
Source: Ancestry.com Present location of original:

3) Name: Sweet *Map of Onondaga County* Date: 1874
Source: Ancestry.com Present location of original:

4) Name: Sweet *Map of Onondaga County* Date: 1889
Source: Onondaga Historical Association Present location of original: Syracuse, NY

5) Name: USGS Topograhical Map: *Syracuse, NY* Date: 1898
Source: United States Geological Survey Present location of original: Washington, D.C.

6) Name: USGS Topograhical Map: *Brewerton, NY* Date: 1943
Source: United States Geological Survey Present location of original: Washington, D.C.

b. Representation in existing photography: none identified

c. Primary and secondary source of documentation (reference fully):

Caughdenoy Road MDS 2 is first identified in the 1854 Fagan *Map of Onondaga County* as belonging to C. Mogg, most likely Cornelius Mogg listed in the 1850 census as a carpenter and resident of the Town of Clay (U.S. Census Bureau, 1850). By 1860, the site had become the property of a W. H. Ostrander, and the site as the location of a cigar manufactory. Though the 1860 census lists W. H. Ostrander's occupation as a farmer, it also identifies a cigar manufacturer named William L. Coughtry as living in that residence (U.S. Census Bureau, 1860). In the latter half of the 19th century, cigar manufacturing became a prominent industry in what is now Clay. However, by 1874 no cigar manufactory was located at Caughdenoy Road MDS 2, which was listed as the property of I. Freeman—most likely the Irving Freeman listed in the 1870 census as a farmer in the Town of Clay (U.S. Census Bureau, 1870). In the 1960s the property was purchased by the Lombardy Tank Company. The primary house structure on the property, which was described as a one-story building constructed of hewn timbers, burned down by 1970 – possibly as a result of lightning strike. The barn associated with the property was later taken down in the early 1990s (see EDR report).

d. Persons with memory of site:

1) Name: Lyle Young
2) Name: Dorothy Heller

Address: Clay Historical Association
District #5 School House
8561 Van Hoesen Road
Clay, NY 13041

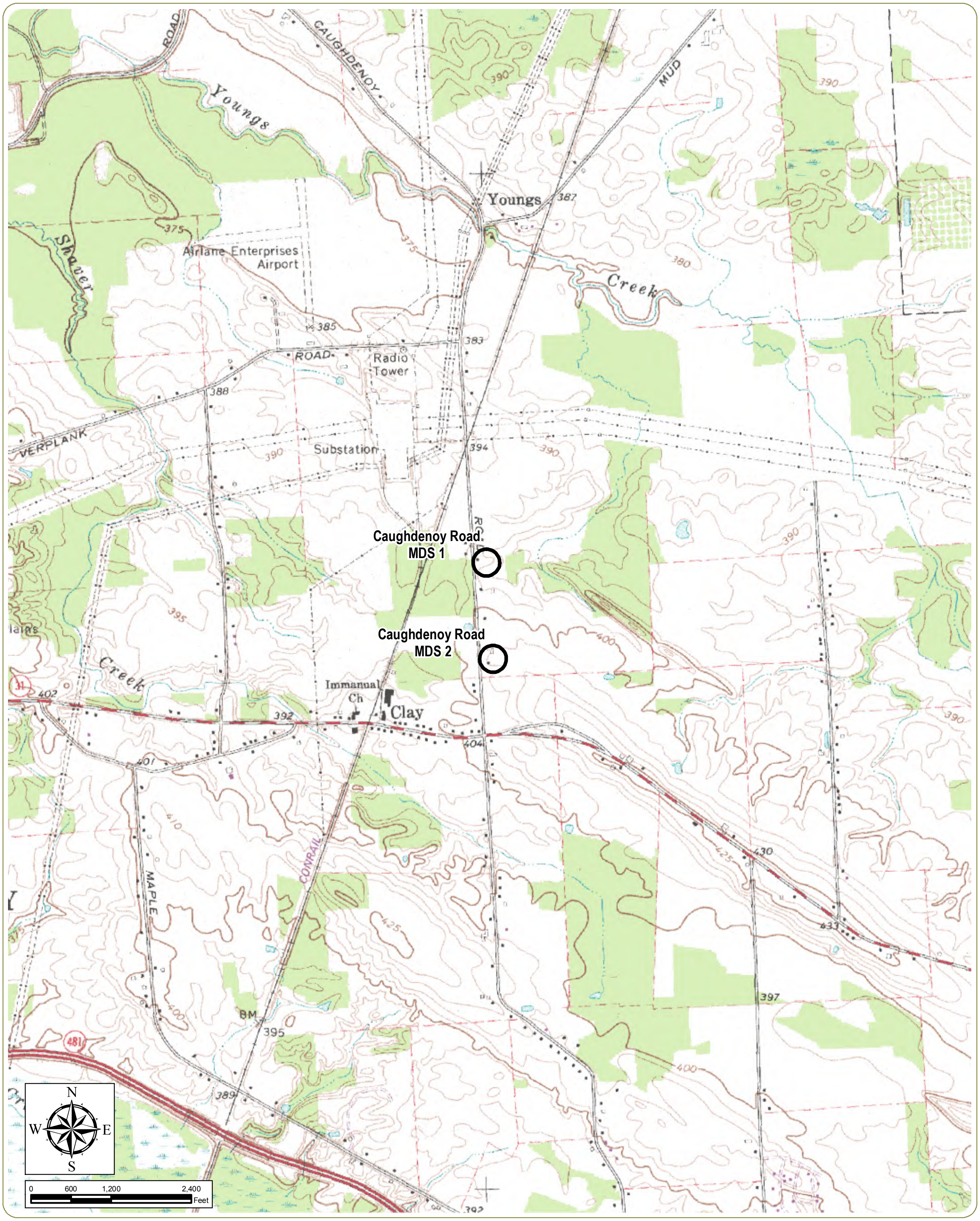
8. LIST OF MATERIAL REMAINS (be as specific as possible in identifying object and material):

Artifacts were recovered from a total of 26 shovel tests, with 121 artifacts recovered from the site. The majority of artifacts were recovered from shovel tests located in the immediate vicinity of the presumed house site and to a lesser extent the area associated with the barn foundation and silo (Features C1 and C2, respectively). Artifacts recovered from the site include ceramic, glass (flat and vessel glass fragments), metal hardware (principally architectural in nature), brick fragments and mortar remains, including pieces of stone and brick with mortar attached. The ceramic fragments include whiteware, with a few pieces of very thick, salt-glazed stoneware and two pieces of redware/terracotta. There were approximately twice as many fragments of flat glass as vessel glass, and the majority of metal fragments were architectural hardware (nails, staples, wires, and other forms). Some samples of coal fragments and slag were also recorded, which is consistent with the reported burning of the house at the site during the late 1960s. Miscellaneous artifacts that were recovered include a button, a bullet casing, a modern plastic and metal shotgun casing, a plastic-coated wire, an enameled metal sign, and a large, historic axe head. No prehistoric artifacts were recorded. The assemblage of artifacts recovered and observed at the site date from the second half of the nineteenth century to the middle-late twentieth century.

The features and artifact assemblage observed at (and recovered from) the site reflect domestic use and agricultural production consistent with the map documented dates of occupation of the site. Features C1, C2, C3, and C4 are all clearly modern (twentieth-century) features. Although at least one occupant of the site during the mid-nineteenth-century was reported to be a cigar manufacturer, no artifacts or features associated with that trade were identified at the site. The burning and disturbed soils observed in shovel tests in the former area of the house on the site are consistent with the reported burning of the house during the late 1960s.
If prehistoric materials are evident, check here and fill out prehistoric site form. N/A

9. MAP REFERENCES: Map or maps showing exact location and extent of site must accompany this form and be identified by source and date. Keep this submission to 8½" x 11", if possible.
USGS 7.5 Minute Series Quadrangle Name: Brewerton, NY
UTM Coordinates: (NAD83 UTM Zone 18T: Easting 405249.25; Northing 4782397.47)

10. PHOTOGRAPHY (optional for environmental impact survey): See referenced report.



White Pine Commerce Park

Town of Clay, Onondaga County, New York

Archeological Sites

September 2013

Map Documented Structure (MDS)

Notes: Basemap: 1978 USGS 1:24,000 Topographic Quadrangle, Brewerton.

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